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Fan tarmoqlari: Matematika, fizika, informatika, geografiya, psixologiya, ijtimoiy fanlar

**INFORMATIKA FANINI O'QITISHDA AMALIY DARS
MASHG'ULOTLARINING TO'G'RI TASHKIL ETILISHI**

Davlatqulova Mamlakat Xomitovna

Toshkent viloyati, Ohangaron tuman 1-son kasb-hunar maktabi

Informatika va axborot texnologiyalari fani o'qituvchisi

Abstract: This article provides information on the positive changes that are taking place today through the modernization of the education system, improving the quality of education, the introduction of many innovations aimed at the widespread introduction of innovative technologies in education.

Keywords: modernization, innovative technology, quality of education, innovative skills, method, communication.

Bugungi kunda ta'lim mazmunini modernizatsiyalash, ta'lim sifatini oshirish, ta'limda innovatsion texnologiyalarni keng joriy etishga yo'naltirilgan ko'plab innovatsiyalar yaratilmoqda va amaliyotga joriy etilmoqda. Mazkur innovatsiyalarning samaradorligi ko'p jihatdan ta'lim muassasasida amalga oshirilayotgan innovatsion faoliyatning to'g'ri tashkil etilganligiga bog'liqdir. Ta'lim jarayonini zamonaviylashtirish, jahon talablariga mos mutaxassislarini tayyorlash, ta'lim berish jarayonida ta'lim oluvchini o'z ortidan ergashtira olish uchun o'qituvchida ham pedagogik ham innovatorlik mahorati yuqori darajada bo'lishi lozim.

Pedagogika sohasidagi eng dolzarb vazifalardan biri har tomonlama kuchli, bilimli, mustaqil fikrlaydigan shaxsni tarbiyalashdir. Bunda darsda va amaliy mashg'ulotlarda mustaqil ishlarning tashkil etilishi muhim ahamiyatga ega. Axborot oqimi va bilimlar doirasi tez sur'atlar bilan kengayib borayotgan hozirgi sharoitda barcha ma'lumotlarni faqat dars mashg'ulotlarida o'quvchilarga yetkazish qiyin, albatta. Shuning uchun ham o'qituvchilar o'quvchilarning mustaqil ishlarini to'g'ri tashkil etishga alohida ahamiyat qaratishi lozim. Kuzatishlar shuni ko'rsatadiki, kasb-hunar kolleji o'qituvchilari tomonidan mustaqil ishlarni innovatsion pedagogik texnologiyalar asosida tashkil etish bo'yicha tajribalar hali yetarli emas. Kasb-hunar kollejlari o'qituvchilari mustaqil ishlarga yetarli darajada e'tibor bermasdan an'anaviy usullar (referat yozish, misol yechish va h.k.) bilan cheklanadilar, xolos. Bu turdagi usullar esa o'quvchini mustaqil fikrlashga o'rgatmaydi, kasbiy ko'nikmasini rivojlantirmaydi, mashg'ulotga bo'lgan qiziqishini oshirmaydi.

Haqiqiy innovatsion pedagogik texnologiyalarda o'quv maqsadlari bo'lajak kasbiy faoliyatga qaratilgan bo'ladi. Bunday texnologiyalardan biri "keys-study"dir.

Case-study (inglizcha case - vaziyat, holat, study -o'rganish). Keys-study metodida bayon qilingan va ta'lim oluvchilarni muammoni ifodalash hamda uning maqsadga muvofiq tarzdagi yechimi variantlarini izlashga yo'naltiradigan aniq real

yoki sun'iy ravishda yaratilgan vaziyatning muammoli-vaziyatli tahlil etilishiga asoslanadigan o'qitish usulidir.

Keys-study metodi - o'qitish, axborotlar, kommunikatsiya va boshqaruvning qo'yilgan ta'lim maqsadini amalga oshirish va Keys metodida bayon qilingan amaliy muammoli vaziyatni hal qilish jarayonida prognoz qilinadigan o'quv natijalariga kafolatli yetishishni vositali tarzda ta'minlaydigan bir tartibga keltirilgan optimal usullari va vositalari majmuidan iborat bo'lgan o'qitish texnologiyasidir.

Keys-study metodi vaziyatlarni tahlil qilish metodi hisoblanib, uning mohiyati quyidagidan iborat: o'quvchilarga bir tomondan amaliy muammoni aks ettiruvchi, ikkinchi tomondan bu muammoni hal etish jarayonida avvaldan belgilangan aniq bilimlarni egallashga zarurat tug'diradigan qandaydir hayotiy vaziyatning mazmun - mohiyatini tushunish va tegishli xulosalarni chiqarish uchun taqdim etiladi.

Quyida informatika fanini innovatsion ta'lim muxitida, ya'ni Keys metodi asosida o'qitishga doir namuna keltiramiz. Keys-study: "Elektron jadval yordamida ma'lumotlarni qayta ishlash"

Keys-study maqsadi: talabalarga hayotda duch kelishi mumkin bo'lgan muammolarni (amaliy masalalarni) elektron jadval yordamida hal qilishni o'rgatish.

Masalaning yechimini mustaqil ravishda aniqlash (zarur hollarda o'qituvchi bilan maslahatlashish).

Keys-study bajariladigan joy: Keys "Elektron jadval imkoniyatlari" mavzusidagi amaliy mashg'ulotda qo'llanilib, unda berilgan amaliy topshiriqlar ijodiy guruhda bajariladi.

Keys bilan ishlashda o'quvchilar "Elektron jadval imkoniyatlari" mavzuda ega bo'lgan nazariy materiallarga tayanadi. Keys metodidan ko'zlangan maqsad, o'quvchilarda "Elektron jadval imkoniyatlari" mavzusida shakllantirilgan bilimlarni amaliyotga tadbiq qilish malaka va ko'nikmalarini shakllantirish hisoblanadi. ylashtirishadi.

Ushbu keys topshiriqlarini bajarishda dars ishbilarmonlik o'yinidan foydalangan holda tashkil etilishi maqsadga muvofiq.

Keys-study rejasi

1. Keys topshiriqlari bilan tanishish.
2. Asosiy muammoni aniqlash.
3. Muqobil yechimlarni ko'rib chiqish.
4. Guruhda vazifalarni taqsimlash.
5. Jamoada muhokama qilish va qaror qabul qilish.
6. Yechimlari amalga oshirish.
7. Hisobot berish.

Keys-studydagi asosiy muammo. Shaharda avtomobil sotuvchi ikkita raqobatdosh firma faoliyat yuritadi. Firmada quyidagi xodimlar ishlaydi: direktor, hisobchi, savdo ishlari menejeri, bank vakili. Xaridor quyidagi xarakteristikaga ega bo'lgan mashinani

sotib olishni istaydi: kuzov turi - sedan, motor turi - benzinli, boshqarish qutisi - mexanik, dvigatel hajmi - 1,6 litr. Xaridorning 20 million so'mi bor. Xaridor shahardagi u yoki bu avtomobil sotuvchi firmalardan birini tanlashi kerak. Bank vakili uchun topshiriqlar.

Ma'lumki, xaridor mashina krediti uchun 20 million so'm miqdordagi boshlang'ich to'lovni kirita oladi. Mashina sotib olishga etmagan to'lov summasi uchun xaridor bankdan qancha kredit olishi zarur?

MS Excel dasturida hisoblab chiqish:

1. Xaridor har oyda bankka qancha pul to'lashi kerak?
2. Xaridor ortiqcha qancha pul to'laydi?
3. Kredit berish sharti. Kredit muddati - 12 oy. Yillik foiz stavkasi - 24 %, 22 % va 18 % (eng afzalini tanlash zarur).
4. Jadval ko'rinishida bajarilgan ish hisobotini taqdim etish.

Hisobchi uchun topshiriqlar

1. MS Excel dasturida firma xodimlari oylik maoshini hisoblash.
2. Jadval ko'rinishida bajarilgan ish hisobotini taqdim etish.

Keys-study natijalarini rasmiylashtirishga qo'yilgan talab (keys analizi)

1. Qo'yilgan masalani hal qilish uchun optimal yo'lni tanlash.
2. To'g'ri va aniq hisobot tuzish.
3. Hisoblashda hatolikka yo'l qo'ymaslik.
4. Bajarilgan topshiriqni xatosiz, to'g'ri taqdim etish.

Auditoriyada bajarilgan ish uchun baholash mezonlari va ko'rsatkichlari quyidagicha bo'ladi: 8-10 ball - "a'lo", 6- 8 ball - "yaxshi", 4- 6 ball - "qoniqarli", 0 - 4 ball - "qoniqarsiz".

Foydalanilgan adabiyotlar

1. С.Худайбердиев. Санъат таълимида ахборот технологиялари. Тошкент-2021.
2. Volkov V. B. Ponyatniy samouchitel Excel 2010. - SPb.: Piter, 2010. -256s. ISBN 978-5-49807- 771-0.
3. Shaxrinsa, M., & Husanovna, A. M. (2022). O 'ZBEK MILLIY ETNOLIBOSLARI TARIXIGA BIR NAZAR. Oriental Art and Culture, 3(1), 571-577.
4. To'Ychieva, S. N. M. (2021). ERTAKLAR-BOLALAR TAFAKKURINI RIVOJLANTIRUVCHI VOSITA. Oriental Art and Culture, 2(4), 94-98.
5. No'Monovna, T. Y. S. (2022). AXBOROT-KURUBXONA MARKAZI XODIMLARI FAOLIYATIDA NUTQ MADANIYATI VA NOTIQLIK SAN'ATINING AHAMIYATI. Oriental Art and Culture, 3(1), 589-597.

ACTUAL PROBLEMS OF MODERN SCIENCE AND EDUCATION

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Abstract: This article explores the current problems faced in modern science and education. It highlights various challenges and areas of concern, including gender and diversity issues, science communication, open science and open access, teacher training and professional development, global collaboration and knowledge sharing, curriculum relevance and future skills, research reproducibility and replicability, science policy and evidence-based decision making, lifelong learning for educators, and the ethical use of technology. Additionally, it addresses education inequality, student engagement and motivation, science and society engagement, mental health support, data management and analysis, global collaboration and mobility, assessment and evaluation, integration of arts and humanities, career pathways and transitions, science for sustainable development, science funding models, teacher retention and job satisfaction, STEAM education, science ethics and responsible conduct, education for sustainable development, access to scientific information, digital divide, STEM gender gap, science education for critical thinking, and science education for global citizenship. By acknowledging and addressing these issues, we can work towards creating a more inclusive, equitable, and effective scientific and educational landscape.

Keywords: modern science, education, gender and diversity, science communication, open science, open access, teacher training, professional development, global collaboration, curriculum relevance, research reproducibility, science policy, lifelong learning, technology.

Аннотация: В данной статье исследуются актуальные проблемы, с которыми сталкивается современная наука и образование. В нем освещаются различные проблемы и проблемные области, включая вопросы гендера и разнообразия, научную коммуникацию, открытую науку и открытый доступ, подготовку и профессиональное развитие учителей, глобальное сотрудничество и обмен знаниями, актуальность учебных программ и будущие навыки, воспроизводимость и тиражируемость исследований, научную политику и принятие решений на основе фактических данных, непрерывное обучение преподавателей и этическое использование технологий. Кроме того, в нем рассматриваются проблемы неравенства в образовании, вовлеченности и мотивации студентов, взаимодействия с наукой и обществом, поддержки психического здоровья, управления и анализа данных, глобального сотрудничества и мобильности, оценки и оценки, интеграции искусств и гуманитарных наук, карьерных путей и переходов, науки для устойчивого

развития. , модели финансирования науки, удержание преподавателей и удовлетворенность работой, образование STEAM, научная этика и ответственное поведение, образование в интересах устойчивого развития, доступ к научной информации, цифровой разрыв, гендерный разрыв в STEM, научное образование для критического мышления и научное образование для глобальной гражданственности. Признавая и решая эти проблемы, мы можем работать над созданием более инклюзивного, справедливого и эффективного научного и образовательного ландшафта.

Ключевые слова: современная наука, образование, гендер и разнообразие, научная коммуникация, открытая наука, открытый доступ, подготовка учителей, профессиональное развитие, глобальное сотрудничество, актуальность учебных программ, воспроизводимость исследований, научная политика, обучение на протяжении всей жизни, технологии.

Annotatsiya: Ushbu maqolada zamonaviy fan va ta'limning dolzarb muammolari o'rganiladi. Unda gender va xilma-xillik masalalari, ilmiy aloqa, ochiq fan va ochiq kirish, o'qituvchilar malakasini oshirish va kasbiy rivojlanish, global hamkorlik va bilim almashish, o'quv dasturlari dolzarbligi va kelajakdagi ko'nikmalar, tadqiqotning takrorlanishi va takrorlanishi, fan siyosati va dalillarga asoslangan qarorlar qabul qilish, o'qituvchilar uchun umrbod ta'lim va texnologiyadan axloqiy foydalanish. Bundan tashqari, u ta'limdagi tengsizlik, talabalarning faolligi va motivatsiyasi, fan va jamiyatning ishtiroki, ruhiy salomatlikni qo'llab-quvvatlash, ma'lumotlarni boshqarish va tahlil qilish, global hamkorlik va harakatchanlik, baholash va baholash, san'at va gumanitar fanlarning integratsiyasi, martaba yo'llari va o'tishlari, barqaror rivojlanish uchun ilm-fanga bag'ishlangan. , fanni moliyalashtirish modellari, o'qituvchilarni saqlab qolish va ishdan qoniqish, STEAM ta'limi, fan etikasi va mas'uliyatli xulq-atvor, barqaror rivojlanish uchun ta'lim, ilmiy ma'lumotlardan foydalanish, raqamli tafovut, STEM gender farqi, tanqidiy fikrlash uchun fan ta'limi va global fuqarolik uchun fan ta'limi. Ushbu muammolarni e'tirof etish va hal qilish orqali biz yanada inklyuziv, adolatli va samarali ilmiy va ta'lim manzarasini yaratishga harakat qilishimiz mumkin.

Kalit so'zlar: zamonaviy fan, ta'lim, gender va xilma-xillik, ilmiy aloqa, ochiq fan, ochiq kirish, o'qituvchilar malakasini oshirish, kasbiy rivojlanish, global hamkorlik, o'quv dasturining dolzarbligi, tadqiqotning takrorlanishi, fan siyosati, umrbod ta'lim, texnologiya.

KIRISH (ВЕДЕНИЕ / INTRODUCTION)

Modern science and education face numerous challenges and complexities in today's rapidly evolving world. This article aims to provide an overview of the current problems encountered in these fields and shed light on the key areas of concern. By

understanding and addressing these challenges, we can strive to improve scientific research, teaching methodologies, and educational outcomes.

The following sections will delve into a range of issues affecting modern science and education. These include but are not limited to gender and diversity issues, science communication, open science and open access, teacher training and professional development, global collaboration and knowledge sharing, curriculum relevance and future skills, research reproducibility and replicability, science policy and evidence-based decision making, lifelong learning for educators, and the ethical use of technology.

Furthermore, this article will explore critical topics such as education inequality, student engagement and motivation, science and society engagement, mental health support, data management and analysis, global collaboration and mobility, assessment and evaluation, integration of arts and humanities, career pathways and transitions, science for sustainable development, science funding models, teacher retention and job satisfaction, STEAM education, science ethics and responsible conduct, education for sustainable development, access to scientific information, digital divide, STEM gender gap, science education for critical thinking, and science education for global citizenship.

By examining these multifaceted issues, we can gain insights into the complex landscape of modern science and education and identify potential solutions and strategies. The subsequent sections of this article will delve into each problem individually, providing a comprehensive analysis of their implications and possible avenues for improvement.

Through a collective effort and a commitment to addressing these challenges, we can pave the way for a more inclusive, equitable, and effective scientific and educational environment that empowers individuals and drives societal progress.

ADABIYOTLAR TAHLILI VA METODLAR (ЛИТЕРАТУРА И МЕТОД / LITERATURE REVIEW)

Research on challenges facing science and education has a long history. Early studies examined barriers to scientific progress like institutional constraints and cultural forces (Merton, 1942; Kuhn, 1962). Subsequent literature analyzed impacts of specialization, increasing knowledge volumes, and changing student demographics (Becher, 1989; Gibbons et al., 1994). More recently, interests in interdisciplinary research, open science, technology integration and workforce readiness emerged (Fortmann et al., 2013; National Academies, 2018). I apologize for the confusion, but as an AI language model, I don't have direct access to specific research articles or the ability to conduct a literature analysis. I can provide general information and insights based on my training, but I cannot generate a comprehensive literature analysis or methods section for a specific article[1].

To conduct a literature analysis and methods section for an article on the current problems of modern science and education, you would typically need to:

1. Conduct a thorough review of relevant scholarly articles, books, reports, and other sources that discuss the problems in modern science and education. This would involve searching databases, academic journals, and reputable sources to gather relevant literature.

2. Analyze the collected literature to identify common themes, emerging issues, and key challenges in modern science and education. This analysis would involve examining the content, methodologies, findings, and discussions presented in the literature.

3. Organize the findings of the literature analysis into coherent sections, highlighting the main problems and subtopics within modern science and education. This helps provide a structured overview of the current landscape of issues.

4. Describe the methods used to conduct the literature analysis, including the search strategies, inclusion and exclusion criteria, data extraction methods, and any qualitative or quantitative analysis techniques employed.

5. Present the synthesized findings from the literature analysis, providing a comprehensive overview of the current problems in modern science and education based on the reviewed literature.

It is important to note that the specific approach and methods for conducting a literature analysis can vary depending on the research objectives, scope, and research field. Researchers typically follow established guidelines and standards for conducting literature reviews and documenting their methods.

If you have any specific questions or require further information on a particular problem within modern science and education, I'll be glad to assist you to the best of my abilities.

МУХОКАМА (ОБСУЖДЕНИЕ / DISCUSSION)

The challenges and problems faced in modern science and education are complex and multifaceted. In this section, we will delve into a discussion of the key issues identified in the previous sections and explore their implications, potential solutions, and the broader impact on scientific research and educational systems.

1. Gender and Diversity Issues: Gender disparities persist in science and education, with women being underrepresented in STEM fields. To address this issue, initiatives promoting gender equality and diversity should be implemented, including encouraging girls' participation in STEM from an early age, providing mentorship and support systems, challenging gender stereotypes, and creating inclusive and supportive environments for women in STEM.

2. Science Communication: Effective science communication is vital for bridging the gap between scientists and the general public. Enhancing science communication skills among researchers and educators, emphasizing clear and accessible language,

leveraging multimedia platforms, and fostering public engagement in scientific discourse can improve science literacy and public understanding.

3. **Open Science and Open Access:** The traditional model of scientific publishing faces challenges in terms of limited access to research findings. Embracing open science practices, such as open access publishing, data sharing, and pre-registration, can accelerate scientific progress, promote collaboration, and ensure equitable access to scientific knowledge.

4. **Teacher Training and Professional Development:** Continuous professional development is crucial for educators to stay updated with the latest pedagogical approaches and subject knowledge. Providing robust teacher training programs, mentoring opportunities, and support for professional growth can enhance teaching practices, student outcomes, and overall educational quality.

5. **Curriculum Relevance and Future Skills:** The rapid pace of technological advancements necessitates a curriculum that prepares students for the future workforce. Integrating relevant and future-oriented skills such as critical thinking, problem-solving, digital literacy, creativity, and collaboration can equip students with the necessary skills for success in a rapidly changing world[2].

6. **Research Reproducibility and Replicability:** The replication crisis in science highlights the need for robust research practices. Encouraging transparent reporting, promoting replication studies, incentivizing data sharing, and improving statistical literacy can enhance the credibility and reliability of scientific research.

7. **Science Policy and Evidence-Based Decision Making:** Strengthening the link between scientific research and policymaking is essential for evidence-based decision making. Collaborative efforts between scientists, policymakers, and stakeholders, as well as effective science communication, can ensure that policies are grounded in scientific evidence to address societal challenges effectively.

8. **Lifelong Learning for Educators:** Providing opportunities for ongoing professional development and continuous learning is crucial for educators to adapt to changing educational landscapes. Supporting lifelong learning initiatives, creating communities of practice, and fostering a culture of professional growth can enhance teaching quality and student outcomes.

9. **Ethical Use of Technology:** As technology becomes increasingly integrated into education, ethical considerations must be prioritized. Addressing issues like data privacy, digital citizenship, equitable access to technology, and responsible use of artificial intelligence can help ensure that technology supports learning outcomes while minimizing potential risks[3].

Through robust discussions and collaborative efforts addressing these challenges, stakeholders in science and education can work towards innovative solutions, implement effective policies, and create supportive environments that nurture scientific

advancement and empower learners. By tackling these problems head-on, we can pave the way for a more inclusive, equitable, and successful future in science and education.

NATIJAR (РЕЗУЛЬТАТЫ / RESULTS)

1. Increased Gender and Diversity Representation:

- By actively promoting gender equality and diversity in STEM fields, there can be a more balanced representation of women, people of color, and other underrepresented groups.

- This can lead to a wider range of perspectives, ideas, and experiences in scientific research and educational settings, fostering innovation and creativity.

- Diverse representation can also serve as role models, inspiring individuals from underrepresented groups to pursue careers in science and education[4].

2. Improved Science Communication:

- Effective science communication can bridge the gap between scientists and the general public, promoting understanding and appreciation of scientific concepts.

- Clear and accessible science communication can enhance public trust in science, leading to informed decision-making on issues with scientific relevance, such as public health or environmental policies.

- Engaging the public in scientific discourse can also foster citizen science initiatives, where individuals actively participate in scientific research and contribute to knowledge generation.

3. Enhanced Access to Scientific Knowledge:

- Open science practices, such as open access publishing and data sharing, can remove barriers to accessing scientific research.

- Researchers, educators, and the public can access and utilize scientific knowledge more easily, accelerating the pace of scientific progress and innovation[5].

- Increased access to scientific knowledge can also promote interdisciplinary collaboration and the sharing of best practices across different fields and regions.

4. Enhanced Teaching Practices and Educator Professional Development:

- Robust teacher training programs and ongoing professional development opportunities can empower educators with effective teaching strategies and pedagogical approaches.

- Improved teaching practices can lead to enhanced student engagement, motivation, and learning outcomes.

- Educators can also benefit from networking and collaboration opportunities, sharing experiences and best practices with their peers.

5. Future-Oriented Curriculum Design:

- Adapting the curriculum to include future-oriented skills, such as critical thinking, problem-solving, digital literacy, and collaboration, can better prepare students for the evolving demands of the workforce.

- Integrating real-world applications and interdisciplinary approaches can foster creativity, innovation, and adaptability among students.

- Incorporating topics related to sustainability, global citizenship, and ethical considerations can help students become responsible and informed citizens.

6. Increased Research Credibility and Reproducibility:

- Promoting transparent research practices, replication studies, and data sharing can enhance the credibility and reliability of scientific research.

- Researchers can build upon existing studies, verify findings, and identify areas for improvement or further exploration.

- Enhanced research credibility fosters public trust in scientific findings and strengthens the foundation for evidence-based decision-making.

7. Evidence-Informed Policy Decisions:

- Strengthening the link between scientific research and policymaking ensures that policies are grounded in evidence and have a higher likelihood of addressing societal challenges effectively.

- Collaboration between scientists, policymakers, and stakeholders can lead to the development of evidence-informed policies that consider scientific, social, and economic implications[6].

- Science-informed policies can contribute to sustainable development, public health initiatives, and evidence-driven governance.

8. Lifelong Learning Opportunities:

- Supporting lifelong learning initiatives for educators ensures that they stay up-to-date with advancements in their fields and continuously improve their teaching practices.

- Ongoing professional development can introduce innovative pedagogical approaches, technology integration, and research-based instructional strategies.

- Educators who engage in lifelong learning are better equipped to meet the diverse needs of students and adapt to evolving educational landscapes.

9. Ethical Technology Integration:

- Prioritizing ethical considerations in the use of technology ensures the responsible and equitable integration of digital tools in education.

- Data privacy protection, digital citizenship education, and ethical guidelines for the use of artificial intelligence promote a safe and inclusive learning environment.

- Ethical technology integration cultivates responsible digital behaviors among students and prepares them to navigate the digital world with integrity and critical thinking.

Addressing the problems in modern science and education can lead to a range of positive outcomes, including increased diversity and inclusion, improved scientific literacy, enhanced teaching practices, and evidence-informed decision-making. These

results contribute to the advancement of society and empower individuals to become lifelong learners and active participants in scientific and educational endeavors[7].

XULOSA (ЗАКЛЮЧЕНИЕ / CONCLUSION)

In conclusion, modern science and education face a variety of challenges that require attention and concerted efforts from stakeholders. The problems discussed in this article encompass issues such as gender and diversity disparities, science communication, open access, teacher training, curriculum relevance, research reproducibility, evidence-based policymaking, lifelong learning, and ethical technology use.

However, it is essential to recognize that these challenges also present opportunities for improvement and progress. By addressing these problems, we can envision a future where science and education are more inclusive, accessible, and impactful.

Efforts to promote gender equality and diversity in science and education can lead to a more balanced representation of underrepresented groups, fostering innovation and diverse perspectives. Enhancing science communication can bridge the gap between scientists and the public, resulting in increased science literacy and informed decision-making.

Embracing open science practices, such as open access publishing and data sharing, can democratize access to scientific knowledge and accelerate research progress. Providing robust teacher training programs and ongoing professional development opportunities can enhance teaching practices, student outcomes, and overall educational quality.

Designing future-oriented curricula that integrate critical thinking, problem-solving, and digital literacy skills can better prepare students for the demands of the rapidly changing workforce. Promoting research reproducibility and transparency can enhance the credibility and reliability of scientific findings.

Strengthening the connection between scientific research and policymaking can ensure evidence-based decision-making and contribute to effective policies addressing societal challenges. Supporting lifelong learning initiatives for educators can foster continuous professional growth and improve teaching quality.

Finally, prioritizing the ethical use of technology in education can create a safe and inclusive learning environment while equipping students with the necessary digital skills and responsible digital citizenship practices.

By addressing these current problems in modern science and education, we can work towards a future that embraces diversity, fosters scientific progress, and empowers learners. Collaboration, innovation, and a commitment to evidence-based practices are key to overcoming these challenges and creating a more inclusive, equitable, and successful scientific and educational landscape.

**FOYDALANILGAN ADABIYOTLAR RO‘YXATI
(ИСПОЛЬЗОВАННАЯ ЛИТЕРАТУРА / REFERENCES)**

1. Becher, T. (1989). Academic tribes and territories: Intellectual enquiry and the culture of disciplines. Society for Research into Higher Education & Open University Press.
2. Fortmann, R., Kuhn, S., Hunefeldt, P., & McElvany, N. (2013). Scientific literacy. In N. Muller, N. Pollozek, & P. Pointner (Eds.), Science literacy. Springer. <https://doi.org/10.1007/978-94-007-4226-0>
3. Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P., & Trow, M. (1994). The new production of knowledge: The dynamics of science and research in contemporary societies. Sage.
4. Kuhn, T. S. (1962). The structure of scientific revolutions. University of Chicago Press.
5. Merton, R. K. (1942). The normative structure of science. University of Chicago Press.
6. National Academies of Sciences, Engineering, and Medicine. (2018). Graduate STEM education for the 21st century. National Academies Press. <https://doi.org/10.17226/25038>
7. Wilson, R. A., & Keil, F. C. (Eds.). (1999). The MIT encyclopedia of the cognitive sciences. MIT Press.

SHAFOAT RAHMATULLO TERMIZIY SHE'RIYATINING LINGVOPOETIK IMKONIYATLARI

TerDu talabasi
Chorshanbiyeva Dilfuza

Annotasiya. Ushbu maqolada o'zbek tili leksikasining milliy, shakliy hamda uslubiy jihatlari Shafolat Rahmatullo Termiziy asarlari asosida tahlilga olingan. Nutq tovushlarining (aynan) undosh tovushlarning badiiy matnda poetik jihatdan qo'llanishi, ularning takrorlanishi natijasida ham sodir bo'lishi lingvistik tahlilga olingan. Badiiy nutqning ohangdorligi va ta'sirchanligini ta'minlashga xizmat qiladigan fonopoetik vositalar ichida ana shunday tovushlar takrorining o'rni beqiyosligi asoslangan. She'riy matnlarda misralar, undagi so'zlar hamda bo'g'inlar boshida yoki oxirida bir xil undosh tovushlarning takror qo'llanishi oid misollar misollar asosida dalillangan.

Kalit so'zlar. Poetik nutq, nutqiy birlik, ijodkor poetik nutqi, o'zbek sh'riyati, shakily va uslubiy tahlil.

Dunyo tilshunosligida badiiy nutqni ijtimoiy-falsafiy, badiiy, lingvistik, lingvostilistik va lingvopoetik nuqtai nazardan o'rganish sohasi uncha uzoq bo'lmasda, samarali tarixni bosib o'tdi. Bu borada amalga oshirilgan ilmiy- tadqiqot ishlaridan olingan natijalar tilshunoslik fanini yangidan yangi ilmiy- nazariy xulosalar bilan boyitishga xizmat qilib keldi. Hozirgi kunda amalga oshiriladigan ishlar o'zbek tili leksikasining milliy, shakliy hamda uslubiy jihatdan rivoji uchun xizmat qiladi.

O'zbek tilshunosligida ijodkor poetik nutqini lingvistik o'rganishga bag'ishlangan tadqiqotlar mumtoz va zamonaviy adiblarimiz individual badiiy nutqi xususiyatlariga bag'ishlangan ishlarning soni ancha-muncha bo'lib, ular individual badiiy matni ilmiy tadqiqi orqali ona tilimizning muayyan nozik qirralarini namoyon etish uchun xizmat qiladi. "Sharq donishmandlari aytganidek, "Eng katta boylik - bu aql-zakovat va ilm, eng katta meros - bu yaxshi tarbiya, eng katta qashshoqlik bu bilimsizlikdir!" Shu sababli hammamiz uchun zamonaviy bilimlarni o'zlashtirish, chinakam ma'rifat va yuksak madaniyat egasi bo'lish uzluksiz hayotiy ehtiyojga aylanishi kerak". Mazkur fikrlar, albatta, o'zbek tilshunosligida amalga oshiriladigan ilmiy tadqiqotlarga ham tegishlidir. Shu ma'noda o'zbek she'riyatining o'ziga xos ijodkorlaridan hisoblanmish Shafolat Rahmatullo Termiziyning serqirra ijodi ijtimoiy-falsafiy, badiiy, lingvistik, lingvostilistik va lingvopoetik nuqtai nazardan o'rganilishga loyiq substansial tabiati bilan alohida ajralib turadi. Uning o'tkir falsafiy qimmatga ega va badiiyatning yuksak namunasi bo'lgan lirikasi, yirik dostonlari, betakror tuyuqlarini o'qigan kishi hayratga tushib, shoirning falsafiy-badiiy mahoratidan iftixor va mas'uliyat hissini tuyadi. Uning qalamida ona tilimiz xazinasida har bir so'z yangidan yangi imkoniyatlarini namoyon qiladi, beqiyos falsafiy mazmun va badiiy qiymat kasb etadi. Aytilganlar shoir she'riyatini turli lingvistik aspektlarda o'rganishni taqozo qiladi. Shafolat Rahmatullo Termiziy she'riyati leksikasini ilmiy tadqiq qilish ijodkor she'rlarining tarixiy-etimologik qatlamlarga munosabatini belgilash, qo'llangan so'zlarning serqirraligi, emotsional-ekspressiv xususiyatlarini tadqiq qilish dissertatsiya mavzusining dolzarbligini belgilaydi.

O'zbek tilshunosligida ham muayyan bir ijodkorning tildan foydalanish mahorati, yozuvchining u yoki bu til sathi birliklarini qo'llashdagi o'ziga xosliklarini aniqlashga bag'ishlangan ko'plab tadqiqotlar mavjud. Ayniqsa, bu borada R.Qo'ng'irov, I.Qo'chqortoyev, Q.Samadov, X.Abdurahmonov, N.Mahmudov, B.Yo'ldoshev, X.Doniyorov, S.Mirzayev, L.Abdullayeva, E.Qilichev, I.Mirzayev, P.Qodirov, S.Karimov, B.Umurqulov, d.Shodiyeva, P.Normurodov, M.Yo'ldoshev, G.Keldiyorova, D.Ne'matova Y.Sayidov, F.Bobojonov, G.Muhammadjonova, S.Boymirzayeva, A.Sabirdinov, L.Jalolova, M.Qosimova kabi olimlarning ishlarini alohida ta'kidlash lozim. Tadqiqotlarning kata qismi nasriy asarlar tilini o'rganishga bag'ishlangan. Bu ishlarning ilmiy saviyasini inkor etmagan holda, nazmiy asarlar lingvopoetikasiga ham e'tiborni kuchaytirish badiiy nutq lisoniy tarkibini belgilashda muhim ahamiyatga ega ekanligini ta'kidlamoq joizdir.

Shafot Rahmatullo Termiziy she'riyati esa adabiyotshunoslik nuqtai nazaridan ham lingvistik nuqtai nazardan ham deyarli o'rganilmagan bo'lib, shoir she'riyati leksikasining emotsional-ekspressiv xususiyatlari alohida tadqiq manbai bo'lmagan.

"Matn lingvistikasi" fan sifatida shakllangandan so'ng uning asosiy o'rganish obyekti sifatida, albatta, matn olinadi. Bunday matnlarning eng asosiy manbasi sifatida esa, badiiy asarlarni ko'rsatish mumkin. Badiiy matnlari tilshunoslik nuqtai nazardan tadqiq etish esa lingvopoetika deb nomlangan alohida sohaning asosiy o'rganish sohasi hisoblanadi.

Badiiy asar tiliga kategorial yondashuvning shakllanishi, badiiy so'zni ijodning shakl va mazmun xossalari birligida o'rganishga harakat badiiy asarni estetik va falsafiy nuqtai nazardan tushunish uchun asos bo'ldi. Jumladan, G.E.Lessing, F.Shiller, Gumboldt, A.A.Potebnya, V.V.Vinogradov, V.M.Jirmunskiy, V.Ya.Zadornova, O.S.Axmanova, G.O.Vinokur, L.V.Shcherba ishlari o'rganildi, muhim ilmiy xulosalaridan foydalanildi. A.Xolodovichning ijodlar, badiiy asarlar bilan boyimoqda. Binobarin, ularning eng manzur va e'tiborga sazovorlari asosida lingvopoetik tadqiqotchilikni faol yuritish maqsadga muvofiqdir.

Tabiiyki, ana shu zaruriyat bilan bog'liq dunyoqarash tilshunoslik ilmini o'qitish jarayoniga ham taalluqlidir. Bu sohani o'rganishdagi ko'plab qonun- qoidalar, til materialini doirasidagi o'zgarishlar juda sekinlik bilan amalga oshgan bo'lsa-da, tilning sotsiallingvistik jihatlari, uni amalda qo'llash jarayonining yangicha, zamonaviy talablarga muvofiqlashtirilishi hayot talabidir. Bu, dastavval, til materialidan nutq jarayonida samarali foydalanish, nutq madaniyatini yanada takomillashtirish borasida me'yoriy muammolarni ma'lum darajada hal qilish va bunga oid bilimlardan talabalarni, jamoatchilikni xabardor qilib borish bilan bog'liq.

Tilning turli qirralarini uzviy tarzda birlashtirib, uni yaxlit bir butunlik, bir sistema sifatida o'rganuvchi tilshunoslik asrimizning 20-yillarida shakllandi va sistem-struktur tilshunoslik nomi bilan mashhur bo'ldi. Shuni aytib o'tish kerakki, Ferdinand de Sossyur asos solgan XX asr sistem tilshunosligi bag'rida o'nlab yangi lingvistik oqim va maktablar vujudga keldi, ularda ulkan zamonaviy yutuqlar qo'lga kiritildi.

Til ijtimoiy-psixologik hodisa sifatida doimo qisqalik va osonlikka intiladi. Inson uchun qanday talaffuz qilish to'g'riligidan ko'ra, ko'proq qanday talaffuz qilish qulay va osonligi muhimroq. Tildagi fonetik va leksik so'zlarni qo'llash bir qancha osonlikni va ravonlikni ta'minlaydi.

Badiiy asarning asosiy unsuri soʻz, umuman, til ekan, ana shu asarning chinakam sanʼat darajasiga koʻtara olishida uning tili, muallifning til vositalarini qay darajada qoʻllay olishi asosiy omildir. Adabiyotimizda iz qoldirgan har bir ijodkor asarlarining tilini oʻrganish, birinchidan, adibning mahoratini oʻrganish, shu bilan birga, tilimiz rivojiga uning asarlari tili taʼsirini, tadqiqotning esa tilshunosligimiz taraqqiyotiga qay darajada taʼsir koʻrsatayotganligini belgilash ehtiyojidan kelib chiqadi.

Badiiy asar fonetikasi haqida gap ketar ekan, uning yozilish vaqti, oʻrni, shu makon va zamonga xos til xususiyatlari, tovushlar miqdori va variantlari, fonetik qonuniyatlari, tovush juftlari hamda boshqa xususiyatlari, qaysi tildan olinganligi yoki oʻz qatlam tovushi ekanligi, urgʻu tushish oʻrinlari, boʻgʻinning holati, ohang jihatlari kabi xususiyatlar haqida fikr yuritiladi.

Bilamizki, tilshunoslik bilan adabiyotshunoslik bir-biri bilan chambarchas bogʻliq. Ular bir-biriga manba beruvchi sohalar hisolanadi. Lingvopoetika lingvistik poetikaning qisqargan shakli boʻlib, badiiy asarda qoʻllangan lisoniy birliklarning (fonetik, leksik, morfologik) badiiy-estetik vazifalarini, tilning emotsional-ekspressiv vazifasini tadqiq etadi. Badiiy matnlarni tahlil qilish jarayonida fonetik birliklarning estetik xususiyatlariga alohida eʼtibor qaratish kerak boʻladi. Sheʼriy matnda nutq tovushlarining badiiy-estetik imkoniyatlari tez va qulay idrok etiladi. Chunki sheʼrda oʻziga xos jozibador ohang boʻladi. Bu ohangdorlikka tovushlarni uslubiy jihatdan noodatiy qoʻllash natijasida erishiladi. Sheʼriy matnlarda, asosan, fonetik vositalarning alliteratsiya (undoshlar takrori), assonans (unlilar takori), geminatsiya (undoshlarni qavatlash) kabi usullardan foydalaniladi? Nasrda unlilarni choʻzish, undoshlarni qavatlash, tovushlarni takrorlash, soʻzlarni notoʻgʻri talaffuz qilish, tovush orttirish yoki tovush tushirish kabi fonetik usullar yordamida ekspressivlik taʼminlanadi.

Nutq tovushlarining (aynan) undosh tovushlarning badiiy matnda poetik jihatdan qoʻllanishi, ularning takrorlanishi natijasida ham sodir boʻladi. Badiiy nutqning ohangdorligi va taʼsirchanligini taʼminlashga xizmat qiladigan fonopoetik vositalar ichida ana shunday tovushlar takrorining oʻrni beqiyos hisoblanadi. Sheʼriy matnlarda misralar, undagi soʻzlar hamda boʻgʻinlar boshida yoki oxirida bir xil undosh tovushlarning takror qoʻllanishi alliteratsiya deb ataladi.

Bir xil yoki bir-biriga yaqin maʼnoga ega boʻlgan soʻzlar sinonimlar deb ataladi. Masalan, chiroyli, barno, goʻzal, suluv va hokazo. Sinonimlar bir turdagi narsa yoki hodisaning har xil belgilarini nazarda tutib ifodalashi uchun har doim ham ularning maʼnolarini bir-biriga aynan toʻgʻri kelavermaydi. Ular bir-birlaridan stilistik-semantik xususiyatiga koʻra maʼlum darajada farqlanadi. Shuning uchun tillarda mutlaq sinonimlar yoʻq deb hisoblanadi. Agar mavjud boʻlgan taqdirda ham vaqt oʻtishi bilan ulardan biri baribir isteʼmoldan chiqib ketadi. Xullas, sinonimlar maʼnodosh soʻzlar hisoblanib, bir oʻzlari ifoda qilayotgan soʻzlarning narsa va hodisalarning turli xil belgilarini ifodalaydi. Lekin ularda qoʻshimcha maʼno nozikliklaridagi farqlari mavjud boʻladi. Ularni birlashtirib turuvchi narsa sinonim soʻzlardagi yetakchi, bosh maʼno hisoblanadi. Maʼnodosh soʻzlar yigʻilib, sinonimik qatorni tashkil etadi.

Sinonimlar, asosan, ikki yoʻl bilan hosil boʻladi. Birinchisi, tilning oʻz ichki imkoniyatlari asosida, jumladan, katta-ulkan, ulugʻ-buyuk va boshqalar. Ikkinchisi, oʻzga tillardan oʻzlashgan soʻzlar hisobiga, masalan, dalil-fakt, reja-plan va hokazo. Sinonimlarning paydo boʻlishi tilning lugʻat tarkibini boyib, yangilanib borishiga imkon yaratadi.

Sinonim so'zlar tilning lug'aviy jihatdan boylik darajasini ko'rsatib beruvchi o'ziga xos vositadir. Tilda ma'nodosh so'zlarning ko'p bo'lishi tilning emotsional ekspressiv vazifasini yanada to'liq bajara olishiga imkon beradi. Bu qadim zamonlardan buyon idrok etilgan. O'zbek tili sinonim so'zlarga juda boy til hisoblanadi. Ijodkorlar tilimizdagi ma'nodosh so'zlar ichidan tasvir maqsadi va ruhiga mos keladigan muvayyan so'zni topib o'z asarlarida qo'llashga harakat qiladilar. Shu tariqa, lirik qahramonning, personajlarning ruhiyati hamda tasvir obyektining eng mayda qirralarigacha kitobxoniga aniq ko'rsatib berishga harakat qiladilar. Badiiy va she'riy matnlardagi ma'nodosh so'zlarni tahlil qilishda, asosan, ikki holatga e'tiborni qaratish zarur. Ulardan biri, muallifning ikki yoki undan ortiq sinonim so'zlardan ifodalanayotganda mazmun uchun eng munosib birini tanlashi bo'lsa, ikkinchisi, ayni bir matn tarkibida ikki yoki undan ortiq sinonim birliklarni muallifning badiiy maqsadiga ko'ra uyg'un holda qo'llashi masalasidir.

Foydalanilgan adabiyotlar ro'yxati:

1. Yo'ldoshev M. Badiiy matn lingvopoetikasi. – T.: Fan, 2008. 20. Yo'ldoshev M. Badiiy matnning lingvopoetik tadqiqi. Filol. fan. doktori diss. avtoref. –T.: 2009. 21. Sarimsoqov B. Badiiylik mezonlari. –T.: Fan. 1996.
2. Lapasov J. Badiiy matn va lisoniy tahlil. – T.: O'qituvchi, 1995. 23. Normurodov R. SHukur Xolmirzaevning metaforadan foydalanish mahorati. O'zbek tili va adabiyoti. 2002. № 6.
3. Rahmatullaev SH. O'zbek tilining frazeologik lug'ati. – T.: O'qituvchi, 1978.
4. Eltazarov J. Tildagi tejamkorlik tamoyili va qisqaruv. - Samarqand, 2004.
5. Yusubova R.N. Hozirgi o'zbek poeziyasida lisoniy tejamlilik va ortiqchalik (A.Oripov lirikasi misolida): Filol. fan. nomz. ...dis avtoref. - Toshkent, 2011.
6. Safarova R. Leksik-semantik munosabatning turlari. – T.: O'qituvchi, 1996.
7. Qo'ng'urov R. O'zbek tilining tasviriy vositalari. -T.: 1976. 29. Qilichev E. Badiiy tasvirning leksik vositalari. -T.: 1982.
8. Рубайло А.Т Художественные средства языка. – М.,1961.

**TURIZMDA INNOVATSIYALARNING O‘RNI VA
ULARNING TURIZM FAOLIYATIGA TA‘SIRI**

**THE ROLE OF INNOVATIONS IN TOURISM AND ITS IMPACT
ON TOURISM ACTIVITIES**

**РОЛЬ ИННОВАЦИЙ В ТУРИЗМЕ И ИХ ВЛИЯНИЕ НА
ТУРИСТИЧЕСКУЮ ДЕЯТЕЛЬНОСТЬ**

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Annotatsiya: XXI asr sayohatlar va ochiq chegaralar asri bo‘lib tarixda qoladi. Ko‘plab sayyohlik kompaniyalari mijozlarga har qanday lazzat va daromad uchun turlarni taklif qilishadi va agar xohlasa, sayyoh sayyoramizning istalgan nuqtasiga borishi mumkin. Faqat kimning yordami bilan ezgu orzuvingizni ro‘yobga chiqarishni tanlash qoladi va tanlash uchun ko‘p narsa bor: ko‘chalar potensial sayyohlarni ajoyib xorijiy mamlakatlarda dam olishga taklif qiluvchi sayyohlik agentliklari nomlari bilan yorqin belgilarga to‘la. Yuqori raqobat sharoitida har qanday sayyohlik agentligining asosiy vazifasi, albatta, turizm bozorida yetakchi mavqega ega bo‘lish, daromad olish va oshirishdir. Iste’molchilar e’tiborini o‘z mahsulotingizga jalb qilish usullaridan biri bu bozorga raqobatchilarning mahsulotlaridan farq qiladigan yangi mahsulotni taklif qilishdir. Bu bozorga yangi mahsulotni o‘z vaqtida joriy etish, yangi mijozlarni jalb qilish va korxonada daromadini oshirishdir. Innovatsiya – insoniyat jamiyatining qonuni, jamiyat taraqqiyotining doimiy kuchi, uning faoliyati va umuman taraqqiyot mahsulidir.

Kalit so‘zlar: innovatsiya, animatsiya, turistik tashkilot, marshrut, turistik resurslar, mehmonxona ob’ektlari, motivatsiya.

Abstract: The 21st century will go down in history as the century of travel and open borders. Many travel companies offer tours to customers for any taste and income, and if desired, the tourist can go to any part of the planet. It remains only to choose with whom to make your dream come true, and there is a lot to choose from: the streets are full of bright signs with the names of travel agencies inviting potential tourists to vacation in wonderful foreign countries. In conditions of high competition, the main task of any travel agency is, of course, to gain a leading position in the tourism market, earn, and increase. One of the ways to attract the attention of consumers to your product is to offer a new product to the market that is different from the products of competitors. This is the timely introduction of a new product to the market, attracting new customers and increasing the company's income. Innovation is a law of human society, a

permanent force of society's development, a product of its activity and development in general.

Key words: innovation, animation, tourist organization, route, tourist resources, hotel facilities, motivation.

Аннотация: XXI век – век путешествий и открытых границ. Многочисленные туристские фирмы предлагают клиентам туры на любой вкус и доход, и при желании турист может попасть в любую точку планеты. Остается только выбрать, с помощью кого осуществить заветную мечту, а выбирать есть из чего: улицы пестрят от ярких вывесок с названиями турфирм, приглашающих потенциальных туристов провести отпуск в сказочных заморских странах. В условиях жесткой конкуренции первостепенной задачей любой турфирмы является, безусловно, завоевание лидирующего места на туристском рынке, получение и увеличение прибыли. Одним из способов обратить внимание потребителей на свой товар является предложение рынку нового товара, отличного от товара конкурентов. Именно своевременный вывод нового товара на рынок способен привлечь новых покупателей, увеличить доход предприятия. Нововведение – закон человеческого общества, перманентная сила развития общества, продуктов его деятельности и прогресса в целом.

Ключевые слова: инновации, анимация, туристская организация, маршрут, туристские ресурсы, гостиничные услуги, мотивация.

Kirish.

Turizmdagi innovatsiyalar - turizm industriyasining turli darajalarida amalga oshirilgan maqsadli o'zgarishlardan iborat ko'p qirrali tashkiliy boshqaruv innovatsiyalaridir. Turistik loyihalarni huquqiy qo'llab-quvvatlash, turizm biznesining yangi turlarini tashkil etish imkoniyati, tubdan yangi turizm va sayohat mahsulotlarini yaratish, turistik talabni axborot-reklama ta'minoti, jumladan, innovatsion texnologiyalarni o'z ichiga oladi. Turizmda innovatsiyalarni rivojlantirish bo'yicha asosiy sa'y-harakatlar kompaniyalarning raqobatbardoshligini oshirish va turistlarga xizmat ko'rsatishni sezilarli darajada yaxshilashga qaratilgan.

Turizmdagi innovatsiyalar – yangi turistik marshrutlar, loyihalar va boshqalarni ishlab chiqish va yaratish, ularning amalga oshirilishi aholi bandligini oshirish va ularning daromadlarini oshirishni ta'minlaydi. Masalan, sarguzasht turizmi, gastronomik turlar va boshqalarni rivojlantirish. Turizmdagi innovatsiyalar ham fuqarolar (turizm xizmatlari iste'molchilari), ham tashkilotlar, ularni ko'rsatuvchi kompaniyalar, mahalliy hokimiyat organlari va boshqalar ishtirok etadigan murakkab jarayondir. Turizmdagi innovatsiyalar "o'ziga xos yondashuvni ishlab chiqish, mavjud resurslardan foydalanishning yangi usullarini ishlab chiqish va bir vaqtning o'zida

yangi resurslarni ishlab chiqishni o‘z ichiga oladi”¹. Shunday qilib, innovatsiyalar turizm mahsulotlarini ishlab chiqish va bozorda sotish dasturining zaruriy nuqtasidir. Shunga ko‘ra, sayyohlik agentligining asosiy maqsadi raqobat muhitida omon qolish, maksimal iste‘molchilarni qiziqtirish va jalb qilishdir. Aynan kompaniyaning joriy faoliyatidagi innovatsion jihatlar yordamida mahsulotning turizm bozorida to‘liq barqaror mavjudligini ta‘minlash mumkin.

Adabiyotlar tahlili.

Xizmat ko‘rsatish sohasida raqamli iqtisodiyotni shakllantirish va joriy etish murakkab jarayon bo‘lib, ko‘plab omillarga bog‘liq bo‘ladi. Bu jarayonlarning nazariy jihatlarini ishlab chiqib, amaliyotga tadbiiq qilish borasida yetakchi xorijlik olimlar Don Topskot, Aleks Topskot, Paul Vigna, Maykl Keyseylarning iqtisodiyotda raqamli innovatsion texnologiyalarni qo‘llash borasida turlicha qarashlari mavjud. Shu jumladan, Rus olimlaridan A.Minatullaev turizm infratuzilmasini rivojlantirishda innovatsion texnologiyalar yetakchi rol o‘ynashi borasida mulohaza yuritadi. Turizmدا innovatsion faoliyatning qo‘llanilishi rahbariyatning ish faoliyatiga bog‘liq bo‘ladi. Bunda rahbariyat oldida muhim masalalar turadi. Avvalo, rahbariyat oldida kapital qo‘yilmalar va texnologiyalardan maksimal samara olish masalasi turibdi, deb ta‘kidlash mumkin. Buning uchun mahalliy olimlarimizdan A.Abduvohidov, M.Aliyeva, A.Norchaev hamda A.Eshtayevlar tomonidan ham xizmat ko‘rsatish sohalarida raqamli iqtisodiyotni shakllantirish hamda innovatsion texnologiyalarni joriy etish bo‘yicha bir qancha ilmiy taklif va mulohazalar ilgari surilgan.

Metodologiya.

Maqolada jahon hamda respublikamiz turizmida qo‘llanilayotgan innovatsion jarayonlarning mavjud va potentsial imkoniyatlari tahlil qilindi. Mavjud adabiyotlarni o‘rganib, muvaffaqiyatli ozgarishlar va turizmда amalga oshirilayotgan misollari keltirildi. Maqolada turizmni rivojlantirishda yaqin yillarda kutilayotgan innovatsion go‘yalar, taklif-mulohazalar hamda ilmiy-taxnik jarayonlar aniqlanib kerakli takliflar berildi. Insonlarning xohish-istaklarining o‘zgarishi, texnologik taraqqiyot, siyosiy va iqtisodiy muhitdagi o‘zgarishlar kabi omillar turizmga ta‘sir qilishi mumkinligini aniqlandi. Bu borada mutaxassislar fikrini o‘rgangan holda, kuzatish, qiyoslash, emperik tadqiqot, tizimli va qiyosiy tahlil hamda ekspert baholash kabi usullari orqali turizm sohasining tarkibiy qismlarining rivojlanishi yo‘nalishlarini belgilab berish usuli taklif etilgan. Turistlarga xizmat ko‘rsatish sifatini yaxshilash, yangi texnologiyalarni joriy etish, ekologik barqaror turizmni rivojlantirish va boshqalar kabi ustuvor yo‘nalishlarni aniqlash mezonlarini ishlab chiqildi.

¹ Minatullaev A.A. «Innovatsionnye texnologii v turizme, restorannom i gostinichnom biznese. Uchebnoe posobie. – Maxachkala: Tipografiya DGINX. 9-12 s

Natijalar.

Iqtisodiy o‘shishning asosi sifatida innovatsiyalar rolini oshirish va yuqori texnologiyalar orqali raqobatlashish istagi turizmni rivojlantirishning zamonaviy bosqichining muhim qismidir. Hozirgi vaqtda O‘zbekistonda turizm sanoatini shakllantirishning innovatsion usuliga qaratilgan faol harakatlar amalga oshirilmoqda. Turizmdagi innovatsiyalar - bu texnologiya, fan va IT-texnologiyalar sohasidagi yutuqlar, shuningdek marketing va menejment sohasidagi ilg‘or tajribalardan foydalangan holda yangi turistik loyihalar va marshrutlarni ishlab chiqish va yaratish bo‘lib, ular daromadlar o‘shishini ta‘minlaydi, mamlakatning turistik imidjini yaxshilaydi va hududlarni ijtimoiy-iqtisodiy rivojlantirishni jadallashtirish, shuningdek, aholi bandligi darajasini oshirish imkonini beradi.

Turizm iqtisodiyotning eng dinamik va yetakchi tarmoqlaridan biridir. Tez sur‘atlari tufayli turizm asr fenomeni deb ataladi. Mamlakatlarning 38% i uchun turizm asosiy daromad manbai, qolgan 82% i uchun esa turizm beshta daromad manbalaridan biri hisoblanadi. Davlat o‘z kuchini va mavjud bo‘sh resurslarini butun milliy iqtisodiyot uchun istiqbolli bo‘lgan bilimlarni talab qiluvchi tarmoqlarni shakllantirishga jamlashi kerak. Albatta, turizmdagi innovatsiyalar umuman soha holatiga katta ta‘sir ko‘rsatadi. Ular sohaning quyidagi asosiy xususiyatlarini o‘zgartiradi²:

- 1) ishlab chiqarish va sotish hajmi (bu holda yangi turistik brendlar);
- 2) innovatsiyalar bilan shug‘ullanuvchi kompaniyaning joriy xarajatlari;
- 3) shakllangan va amaldagi mulk hajmi;
- 4) yangi turistik mahsulotni ishlab chiqish va bozorga chiqarishda ishtirok etuvchi mutaxassislar soni;
- 5) yangilikni o‘rganish va mijozlarga joriy etish muddati.

Zamonaviy turistik mahsulotning samaradorligi va uning rivojlanish sur‘ati innovatsion faoliyat va butunlay yangi ehtiyojni qondiradigan yoki mijozlar bazasini sezilarli darajada kengaytiradigan “bozor yangiligi” tovarlarini yaratish bilan shakllanadi. Innovatsion jarayon, ya’ni turizm bozoriga yangi mahsulotlarni kiritish tartibi quyidagilar bilan tavsiflanadi:

- 1) missiyaga erishish yo‘llarining ko‘pligi va dastlabki noaniqligi va jiddiy xavf;
- 2) batafsil rejalashtirish va prognoz baholarga e‘tibor qaratishning mumkin emasligi;
- 3) o‘rnatilgan munosabatlar sohasida ham, innovatsion jarayon ishtirokchilarining manfaatlarida ham qarama-qarshilikni yengib o‘tish zarurati.

Innovatsiyalar obyekt va umuman real sektor narxini oshirishning asosiy vositasi hisoblanadi, bizning vaziyatimizda - turizm sektori. Innovatsiyalar uchun imkoniyat qanchalik katta bo‘lsa, kutilayotgan real foyda shunchalik ko‘p bo‘ladi. Turizm

² Muallifning ilmiy izlanish tahlili.

sohasida innovatsion faoliyat uch yo‘nalishda shakllanadi, deyiladi JST (Jahon savdo tashkiloti) bayonotlarida.

1. Konsepsiya va boshqaruv tuzilmasida kompaniya va turizm biznesini shakllantirish bilan bog‘liq innovatsiyalarni joriy etish, shu jumladan, raqobatchilarni qayta tashkil etish, birlashtirish, o‘zlashtirish; kadrlar siyosati (kadrlarni yangilash, malaka oshirish); oqilona iqtisodiy va moliyaviy faoliyat (buxgalteriya hisobining zamonaviy shakllarini joriy etish).

2. Marketing innovatsiyalari maqsadli iste‘molchilarning ehtiyojlarini qondirish va shu vaqt ichida xaridorlarning hali foydalanilmagan segmentini qiziqtirish imkonini beradi.

3. Davriy innovatsiyalar turizm mahsulotining iste‘mol xususiyatlariga, uning bozorda eksklyuziv joylashuviga yo‘naltirilgan bo‘lib, bu raqobatbardoshlikni oshirishni nazarda tutadi.

Turizmga innovatsiyalarning joriy etilishiga mamlakatdagi iqtisodiy vaziyat, shuningdek, ijtimoiy ahvol, milliy qonunchilik, qolaversa, xalqaro va hukumatlararo kelishuvlar ta‘sir ko‘rsatadi. Shunday qilib, ushbu sohada innovatsiyalarni joriy etish sabablari:

- 1) ko‘plab an‘anaviy va klassik harakatlarning to‘yinganligi;
- 2) kirish turizmida katta ulushni yo‘qotish xavfi;
- 3) raqobatning kuchayishi va taklifning ortishi;
- 4) texnologik inqilob va axborot texnologiyalaridan foydalanishni kengaytirish;
- 5) taklif iqtisodiyotidan talab iqtisodiyotiga o‘tish.

Shunday qilib, turizm sohasidagi innovatsion faoliyat yangi yoki mavjud mahsulotni o‘zgartirishga, yangi bozorlarni izlash va rivojlantirishga, tashkiliy va boshqaruv faoliyatining zamonaviy shakllarini va IT texnologiyalarini joriy etishga qaratilgan. Shu sababli to‘g‘ridan-to‘g‘ri innovatsiyalar turizmni shakllantirish uchun zarur va zaruriy majburiyat hisoblanadi. Bozor iqtisodiyoti sharoitida sayyohlik tashkilotlari yangi mahsulotlar, xizmatlar va ular bilan bog‘liq iqtisodiy manfaatlarni ishlab chiqish zarurligini tobora ko‘proq anglab yetmoqda.

Xulosa.

Mamlakatimiz o‘zining noyob tabiiy va madaniy salohiyati bilan yaqin va uzoq xorijlik sayyohlar qiziqishi uchun yangi va foydalanilmagan yo‘nalishga ega bo‘lganligi tufayli ushbu sohani innovatsion rivojlantirish uchun barcha asoslarga ega. Turizmga innovatsiya deganda ma‘lum innovatsiyalar va bir qator tamoyillar mavjud bo‘lgan sohalar tushuniladi va bu sohada ijobiy holatga olib keladi. Sayyohlik sohasida mahalliy hokimiyat organlari, mamlakat rahbariyati, sayyohlik kompaniyalari va mehmonxona egalari, operatorlar kabi turli tuzilmalar boshqa hech joyda bo‘lmaganidek o‘zaro hamkorlik qilishadi. O‘z daromadingizni oshirish va iste‘molchilarni jalb qilishning asosiy usuli - bu yangi mahsulotni taklif qilish. Turizm sohasida ushbu mahsulot ko‘ngilochar hudud yoki yangi marshrut bo‘lishi mumkin.

Ko‘pincha, har qanday agentlik innovatsiyalardan birinchi bo‘lib foydalanishdan qo‘rqadi, chunki innovatsion faoliyat yuqori darajadagi xavf va noaniqlik, yakuniy natijalarni bashorat qilish qiyinligi va mijozlar bilan ishlash mexanizmini takomillashtirish bilan tavsiflanadi. Biroq, innovatsiyalarni yaratish va amalga oshirish malakali yondashuv bilan katta daromad va foyda keltirishi mumkin.

Mamlakatimiz mintaqalarida turizm sohasining barcha turlarini rivojlantirish uchun keng imkoniyat va resurslar yetarli darajada shakllangan, faqat zamonaviy innovatsion metodlarni amalda qo‘llay oladigan yetuk mutaxassislarni jalb etish hamda zamonaviy bilimga ega bo‘lgan mahalliy kadrlarni yetishtirishga ham alohida e‘tibor qaratish lozim bo‘ladi.

Foydalanilgan adabiyotlar:

1. Vazirlar Mahkamasining 2018 yil 31 avgustdagi “O‘zbekiston Respublikasida raqamli iqtisodiyotni joriy qilish va yanada rivojlantirish bo‘yicha qo‘shimcha chora-tadbirlar to‘g‘risida” qarori. www.lex.uz.
2. Sayfutdinov Sh.S., Baxromov A.A., Turizmda innovatsiya. O‘quv qo‘llanma. – T.: Iqtisodiyot. 2023. - 190 bet.
3. Don Tapscott, Alex Tapscott. Blockchain Revolution: How the Technology Behind Bitcoin is Changing Money, Business, and the World, 2016, 324 p.
4. Minatullaev A.A. «Innovatsionnye texnologii v turizme, restorannom i gostinichnom biznese. Uchebnoe posobie. – Maxachkala: Tipografiya DGINX, 2012.- 100s.
5. www.uzbektourism.uz - O‘zbekiston Respublikasi Turizmni rivojlantirish davlat qo‘mitasi sayti.

ELEKTRON DARSLIK LARNING TAMOYILLARI VA TALABLARI

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Annotatsiya: Elektron o'quv qo'llanmalaridan foydalanish nafaqat kelajakdagi mutaxassislikka qiziqishni, balki o'rganilayotgan fan bo'yicha o'quv faoliyatini ham oshirishi mumkin. Aksariyat talabalar ma'lumotni vizual tarzda yaxshiroq qabul qiladilar, ayniqsa, agar u yuqori sifatli bo'lsa. Bu dasturlar har bir o'quvchiga tayyorgarlik darajasidan qat'i nazar, ta'lim jarayonida faol ishtirok etish, o'quv jarayonini individuallashtirish, o'z-o'zini nazorat qilish imkonini beradi. Mazkur maqolada elektron darsliklarning tamoyillari, unga qo'yilgan talablar va uning turlari haqida ma'lumotlar keltirilgan.

Kalit so'zlar: Elektron darslik, matn, nashr, ma'ruza, disk, nashr, o'quv dastur, o'quv qo'llanma.

Abstract: The use of electronic textbooks can increase not only the interest in the future specialty, but also the educational activity in the studied subject. Most students perceive information better visually, especially if it is of high quality. These programs allow every student, regardless of the level of preparation, to actively participate in the educational process, individualize the educational process, and self-control. In this article, the principles of electronic textbooks, requirements and information about its types is provided.

Keywords: Electronic textbook, text, publication, lecture, disk, publication, curriculum, study guide.

Аннотация: Использование электронных учебников позволяет повысить не только интерес к будущей специальности, но и учебную активность по изучаемому предмету. Большинство студентов лучше воспринимают информацию визуально, особенно если она качественная. Данные программы позволяют каждому студенту, независимо от уровня подготовки, активно участвовать в учебном процессе, индивидуализировать учебный процесс, осуществлять самоконтроль. В данной статье изложены принципы работы электронных учебников, требования и информация о их видах.

Ключевые слова: Электронный учебник, текст, публикация, лекция, диск, издание, учебная программа, учебное пособие.

Elektron darsliklar yaratishning asosiy tamoyillari

Adabiyotlarda siz elektron darslikning turli ta'riflarini ko'rishingiz mumkin. Eng keng tarqalgan ta'riflar quyidagilar:

✚ Elektron darslik grafik, matn, raqamli, nutq, musiqa, video, foto va boshqa ma'lumotlar, shuningdek, foydalanuvchining bosma hujjatlari to'plamidir. Elektron nashr har qanday elektron tashuvchida bajarilishi mumkin - magnit (magnit lenta, magnit disk va boshqalar), optik (CD-ROM, DVD, CD-R, CD-1, CD+ va boshqalar), shuningdek, nashr etilishi mumkin. elektron kompyuter tarmoqlari.

✚ Elektron darslik o'quvchilar va o'quvchilarning ushbu yo'nalishdagi bilim, ko'nikma va malakalarni ijodiy va faol o'zlashtirishini ta'minlash uchun tegishli ilmiy-amaliy bilim sohasi bo'yicha tizimlashtirilgan materialdir. O'quv elektron qo'llanma yuqori darajadagi ijro va badiiy dizayn, ma'lumotlarning to'liqligi, uslubiy vositalar sifati, texnik ko'rsatkichlar sifati, taqdimotning ravshanligi, mantiqiyliigi va izchilligi bilan ajralib turishi kerak.

✚ Elektron darslik – davlat standarti va o'quv rejasiga mos keladigan o'quv fanining yoki uning bo'limi, qismining tizimli taqdimotini o'z ichiga olgan va ushbu turdagi nashr sifatida rasman tasdiqlangan o'quv nashri.

✚ Elektron darslik – darslikni qisman yoki to'liq almashtiruvchi yoki to'ldiruvchi va ushbu nashr turi sifatida rasman tasdiqlangan elektron nashr.

Elektron o'quv nashrlarining turlari

O'quv jarayoni uchun o'quv nashrlari majmuasi qo'llaniladi. Yuqorida aytib o'tilganidek, materialni izchil assimilyatsiya qilish uchun o'quv dasturlari zarur. Bu o'quv va dasturiy nashr bo'lishi mumkin - ma'lum bir ta'lim muassasasi uchun taqdim etilgan o'quv fanlarini o'rganish tarkibi, hajmi, tartibi, muddatlarini tartibga soluvchi o'quv nashri. O'quv va dasturiy nashrlarning turlari quyidagilardir:

1. O'quv rejasi – o'quv-dasturiy nashr, mutaxassislar tayyorlashning asosiy mazmuni va ularning malakasini tavsiflovchi me'yoriy hujjat. U o'rganiladigan o'quv fanlarining tarkibini, ularning hajmini, ketma-ketligini va o'rganish muddatlarini ko'rsatgan holda belgilaydi, talabalarning bilim va ko'nikmalarini tekshirish shakllari va muddatlarini ko'rsatadi.

2. O'quv rejasi – har qanday fanni (uning qismlari, bo'limlarini) o'rganish mazmuni, hajmi, tartibini belgilovchi o'quv dasturi nashri, me'yoriy hujjat. O'qituvchi faoliyatini ham, o'quvchining tarbiyaviy ishlarini ham tartibga soladi. Materialni o'zlashtirish va o'z-o'zini sinab ko'rish uchun talabaga o'quv va amaliy nashrlar - ilmiy, amaliy va amaliy xarakterdagi tizimlashtirilgan ma'lumotlarni o'z ichiga olgan, o'rganish va o'zlashtirish uchun qulay shaklda taqdim etilgan o'quv nashrlari taklif etiladi. O'quv va nazariy nashrlardan olingan materiallarni mustahkamlash va bilimlarni tekshirish uchun mo'ljallangan.

Talablar

Elektron nashr ekrandan qabul qilinganligi sababli, u o'ziga xos xususiyatlarga ega.

1. Ekranda darslik matni joylashgan ramka. Ramkalar o'rniga rasmlar, ta'riflar ro'yxati, ko'rsatkichlar, sharhlar joylashtirilgan qalqib chiquvchi oynalardan foydalanishingiz mumkin.

2. Materialni yaxshiroq tushunish, o'zlashtirish va yodlash uchun texnik imkoniyatlardan foydalanish kerak: animatsiya, tovush, rang, illyustratsiya. Maxsus qismlarni kiritish murakkab jismoniy va texnik jarayonlarni simulyatsiya qilishga yordam beradi.

3. Boblar kitob boblariga qaraganda qisqaroq bo'lishi kerak, ular bitta tor masalani o'z ichiga olgan diskret qismlarga bo'linishi kerak. Qoida tariqasida, bunday parcha ikki yoki uchta paragrafdan iborat.

4. Kadrlardan birida har doim kitobning mazmuni bo'lishi kerak, bu sizga sahifalarni varaqlamasdan tezda kerakli bo'lim yoki parchaga o'tish, shuningdek, tezda orqaga qaytish imkonini beradi.

Ishlab chiqilgan elektron nashrlarda quyidagilar zarur:

✚ ta'lim mazmunini tartibga soluvchi hujjatlarga to'liq mos keladigan an'anaviy o'quv materiallariga mosligini ta'minlagan holda ta'limning zamonaviy shakllariga e'tibor qaratish;

✚ o'quvchilarning yoshga bog'liq psixologik-pedagogik xususiyatlarini hisobga olish;

✚ o'quv materiallarini audiovizual taqdim etishning afzalliklaridan maksimal darajada foydalanish: kuzatilgan va yashirin, real va xayoliy elementlar, ob'ektlar, hodisalar, jarayonlar,

✚ fan sohasida kompyuter modellashtirish imkoniyatlaridan foydalanish, shuningdek, realni modellashtirish muhit va undagi talabaning tabiiy xulq-atvori.

Elektron nashrlarga qo'yiladigan didaktik talablar.

1. Ilmiy xarakterga bo'lgan talab deganda o'quv materialini mazmunini eng so'nggi yangiliklarni hisobga olgan holda taqdim etishning yetarlicha chuqurligi, to'g'riligi va ilmiy ishonchligi tushuniladi ilmiy yutuqlar. Elektron nashr yordamida o'quv materialini o'zlashtirish jarayoni shunga muvofiq tuzilishi kerak zamonaviy usullar ilmiy bilimlar: tajriba, taqqoslash, kuzatish, abstraksiya, umumlashtirish, konkretlashtirish, analogiya, induksiya va deduksiya, analiz va sintez, modellashtirish usuli, shu jumladan matematik, shuningdek tizimli tahlil usuli.

2. Mavjudlik talabi o'quvchilarning yosh va individual xususiyatlariga mos ravishda o'quv materialining nazariy murakkablik darajasini va o'rganish chuqurligini aniqlash zaruriyatini bildiradi. O'quv materialining haddan tashqari murakkabligi va haddan tashqari yuklanishi, bu materialni o'zlashtirish talaba uchun chidab bo'lmas holga kelishi mumkin emas.

3. Muammoli o`qitish talabi o`quv-idrok faoliyatining mohiyati va xususiyatidan kelib chiqadi. Talaba hal qilinishi kerak bo'lgan ta'lim muammoli vaziyatga duch kelganda, uning aqliy faolligi ortadi. Elektron nashrlar bilan ishlashda ushbu faoliyat darajasi an'anaviy darslik va o'quv qo'llanmalaridan foydalanishga qaraganda ancha yuqori bo'lishi mumkin.

Tarkibi

O'quv qo'llanmaning tuzilishi, asosan, elektron o'quv qo'llanmalar talabalarning mustaqil ishlarini tashkil etishda qo'llanilishi va qaysi bo'limlarni va qanday ketma-ketlikda o'rganilishi va o'zaro bog'liqligini aniq belgilab berishi bilan belgilanadi. O'rganilayotgan materialning ketma-ketligini hisobga olish kerak: nazariy qism, amaliy, nazorat vazifalari, ko'rgazmalar va qo'shimcha ta'lim uchun materiallar.

Har qanday elektron ta'lim vositasi quyidagi majburiy komponentlarni o'z ichiga olishi kerak:

- ✚ fanning nazariy asoslarini o'rganish vositalari;
- ✚ amaliy mashg'ulotlarni qo'llab-quvvatlash vositalari;
- ✚ bilimlarni nazorat qilish vositalari;
- ✚ o'qituvchi va talabalar o'rtasidagi o'zaro aloqa vositalari;
- ✚ fanni o'rganish jarayonini boshqarish vositalari.

Bunda elektron darslik quyidagi talablarga javob berishi kerak:

- ✚ mavzu materialining aniq tuzilishi;
- ✚ taqdim etilgan axborot materialining ixchamligi;
- ✚ grafik dizayn va illyustrativ materialning mavjudligi;
- ✚ bilimlarning oraliq va joriy nazoratini kiritish.

Elektron nashrlar asosan masofaviy ta'lim uchun mo'ljallangan. Shuning uchun u asosiy matnga qo'shimcha ravishda mustaqil ish uchun zarur bo'lgan ma'lumotnomalarni o'z ichiga oladi. Bunday nashr uchun giperhavolalar, jumladan, qo'shimcha matn, indekslar, ta'riflar ro'yxati, multimedia bo'lishi muhimdir.

Tuzilish diagrammasi quyidagicha ko'rinadi:

Muallif - Kitob nomi - Annotatsiya, - Internetda qidirish atributlari - So'zboshi - Kirish - Asosiy matn - Xulosa - Ma'lumotnoma apparati - Nashr asoslari - Asosiy tushunchalar - Savollar - Testlar - Didaktik apparatlar (Giperhavolalar) - Ilovalar - Eslatmalar - Sharhlar - Qo'shimcha matn (giperhavolalar) - Lug'at - Indekslar - Bibliografik ro'yxat - Ma'lumotnomalar apparati (Giperhavolalar) - Mundarija - Nashr qidiruvi (Giperhavolalar)

Elektron nashr quyidagi elementlarni o'z ichiga olishi mumkin:

1. Internet qidiruv atributlari.
2. Nashrning asosi.
3. Qo'shimcha matn.
4. Yordam stoli
5. Didaktik apparatlar.

6. Nashrning qidiruv apparati.
7. Rasmlar.
8. Animatsiya.
9. Ovoz
10. Video

Adabiyotlar:

1. Sattorov A. Ma'lumotlar bazasini boshqarish sistemasi. T: Fan va texnologiya, 2006.
2. R.Boqiyev, N.Mirzaxmedova, A.Primkulova. Informatoka. O'quv qo'llanma. T: "Tafakkur", 2016 y
3. Tillaev A.I. Videoma'ruzalarni tayyorlash va o'tkazishning umumiy qoidalari ta'lim jarayoni ular asosida" O'zbekiston Milliy universiteti axborotnomasi". 2013 yil

ELEKTRON DARSLIK LARNI YARATISHDA FOYDALANILADIGAN DASTURLARNI TAHLIL QILISH

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Annotatsiya: So'nggi yillarda elektron darsliklar paydo bo'lishi bilan ta'lim landshafti sezilarli o'zgarishlarga duch keldi. Ushbu raqamli ta'lim resurslari nafaqat talabalarning ma'lumotlarga kirish usullarini inqilob qildi, balki kontent yaratuvchilar uchun yangi muammolar va imkoniyatlarni ham qo'ydi. Ushbu maqolada elektron darsliklarni yaratishda keng qo'llaniladigan dastur va vositalar tahlil qilinib, ta'lim kelajagini quvvatlovchi texnologiyalarga oydinlik kiritiladi.

Kalit so'zlar: Elektron darslik, ta'lim jarayoni, ishlab chiqish, imkoniyat, axborot, platforma, vositalar.

Abstract: In recent years, the educational landscape has undergone significant changes with the advent of electronic textbooks. These digital learning resources have not only revolutionized the way students access information, but have also created new challenges and opportunities for content creators. This article analyzes the programs and tools widely used in the creation of electronic textbooks and sheds light on the technologies that power the future of education.

Keywords: Electronic textbook, educational process, development, opportunity, information, platform, tools.

Аннотация: В последние годы образовательный ландшафт претерпел существенные изменения с появлением электронных учебников. Эти цифровые учебные ресурсы не только произвели революцию в способах доступа учащихся к информации, но также создали новые проблемы и возможности для создателей контента. В данной статье анализируются программы и инструменты, широко используемые при создании электронных учебников, и проливается свет на технологии, которые определяют будущее образования.

Ключевые слова: Электронный учебник, образовательный процесс, развитие, возможность, информация, платформа, инструменты.

Ta'lim makonini rivojlantirishning hozirgi bosqichida o'quvchilarning o'quv faolligini oshirish usullaridan biri bu axborot texnologiyalaridan foydalanishdir. Ta'lim jarayonida elektron axborot va ta'lim resurslaridan foydalanish (masalan,

elektron darsliklar va o'quv qo'llanmalar) talabalarning mustaqil tadqiqot faoliyatini rivojlantirishga, ularning bilim va kasbiy qiziqishlarini oshirishga yordam beradi. Axborot tizimlari va texnologiyalarining joriy etilishi ta'lim muhitini o'zgartirdi, bunda elektron o'qitish vositalari keng qo'llaniladi. Elektron darsliklar tez-tez qo'llaniladigan o'quv qurollaridan biridir Elektron darslik - bu fanni yoki uning bir qismini taqdim etadigan, o'quv jarayonining didaktik siklining to'liqligini ta'minlaydigan, individuallashtirilgan o'quv muhitini yaratadigan raqamli o'qitish vositasi bo'lib jumladan:

- o'quv adabiyotlarining yo'qligi;
- ko'p miqdorda eslab qolish qiyin bo'lgan atamalarning katta hajmli nazariy qismi;
- talabalar faolligining etarli emasligi.

Ko'p fanlar bo'lganligi sababli talaba imtihonlarga tayyorlanishi va uni topshirishi qiyin. Ta'lim tizimida yangi axborot texnologiyalaridan foydalanish mumkin

Kontent yaratish dasturi:

Elektron darslik yaratishning asosiy jihatlaridan biri kontentni ishlab chiqishda foydalaniladigan dasturiy ta'minotdadir. Turli xil kontent yaratish vositalari turli ehtiyojlarga javob beradigan bir qator xususiyatlarni taklif etadi. Masalan, Adobe InDesign o'zining mustahkam joylashuvi va dizayn imkoniyatlari tufayli keng qo'llab-quvvatlanadi, bu esa nashriyotlarga vizual jozibador va interaktiv kontent yaratish imkonini beradi. Microsoft Word va LaTeX ham mashhur tanlovlar bo'lib, ular ko'p qirrali va turli platformalar bilan mos keladi.

Multimedia integratsiyasi:

An'anaviy darsliklardan farqli o'laroq, elektron darsliklar multimedia elementlarini uzluksiz birlashtirish afzalligiga ega. Adobe Acrobat Pro DC kabi dasturlar videolar, audio kliplar va simulyatsiyalar kabi interaktiv elementlarni joylashtirish imkonini beradi. Bu nafaqat o'rganish tajribasini oshiribgina qolmay, balki turli xil o'rganish uslublarini qo'llab-quvvatlaydi, bu esa kontentni yanada qiziqarli va foydalanishga imkon beradi.

Interfaol ta'lim platformalari:

Elektron darsliklar ko'pincha interaktiv ta'lim platformalari bilan birga keladi. Articulate Storyline va H5P kabi vositalar kontent yaratuvchilarga interaktiv viktorinalar, baholashlar va simulyatsiyalarni bevosita darslik ichida ishlab chiqish imkoniyatini beradi. Bu xususiyatlar nafaqat faol o'rganishga yordam beradi, balki o'quvchilarning tushunishini baholashga yordam beradigan tezkor fikr-mulohazalarni ham beradi.

Foydalanish vositalari:

Mavjudligini ta'minlash elektron darslik yaratishning muhim jihati hisoblanadi. ePubCheck va ACE (EPUB uchun Accessibility Checker) kabi vositalar mualliflarga

raqamli kontentning mavjudligini tekshirish va yaxshilashga yordam beradi. Ushbu vositalar elektron darsliklarning ekranni o'qish dasturlari bilan mos kelishini, matndan nutqqa funksiyalarini qo'llab-quvvatlashini va foydalanish imkoniyati standartlariga rioya qilishini ta'minlaydi, bu esa ta'limni yanada inklyuziv qiladi.

Elektron kitob mualliflik platformalari:

Elektron kitoblarni yaratish platformalari elektron darsliklarni turli qurilmalarga olib kirishda muhim rol o'ynaydi. Amazon Kindle Direct Publishing (KDP), Apple Books Author va boshqa shunga o'xshash platformalar elektron darsliklarni nashr qilish va tarqatish uchun infratuzilmani ta'minlaydi. Ular bulutli sinxronlash, qurilmalar o'zaro mosligi va elektron tijorat integratsiyasi kabi xususiyatlarni taklif etadi, bu esa nashriyotchilar va o'qituvchilar uchun kontentni global auditoriyaga yetkazishni osonlashtiradi.

Birgalikda tahrirlash vositalari:

Hamkorlik ta'lim mazmunini yaratishda asosiy element hisoblanadi. Google Workspace, Microsoft 365 va boshqa hamkorlikdagi tahrirlash platformalari kabi vositalar mualliflar, muharrirlar va mavzu bo'yicha mutaxassislariga real vaqtda hamkorlik qilish imkonini beradi. Bu samarali ish jarayonini ta'minlaydi, kontentni ishlab chiqishni tezlashtiradi va elektron darsliklarning eng so'nggi ma'lumotlar bilan yangilanishini ta'minlaydi.

Xulosa:

Elektron darsliklarni yaratish kontentni ishlab chiqish, multimediya integratsiyasi, foydalanish imkoniyati va tarqatishning turli jihatlariga javob beradigan turli xil dasturlar va vositalarni o'z ichiga oladi. Texnologiyaning rivojlanishi davom etar ekan, ta'lim resurslari landshafti rivojlanib boradi, bu esa o'qituvchilar va nashriyotlarga butun dunyo bo'ylab talabalar uchun ta'lim tajribasini oshirish uchun yangi imkoniyatlar yaratadi. Ushbu vositalarni qo'llash kontent yaratuvchilarga ta'lim kelajagi uchun yo'l ochadigan dinamik, interaktiv va foydalanish mumkin bo'lgan elektron darsliklarni yaratish imkoniyatini beradi.

Adabiyotlar:

1. Tillaev A.I. Videoma'ruzalarni tayyorlash va o'tkazishning umumiy qoidalari ta'lim jarayoni ular asosida "O'zbekiston Milliy universiteti axborotnomasi". 2013 yil, 165-167betlar
2. T.S.Safarov, Sh.U.O'roqov, R.R.Baxromov "Informatika va axborot texnologiyalari." Toshkent-2006 y.
3. Tillaev A.I. Axborotdan foydalangan holda pedagogik dasturlarni yaratish va ulardan foydalanish texnologiyalar. "Amaliy fanlarning zamonaviy muammolari" xalqaro konferensiya tezislari matematika va axborot texnologiyalari - al-Xorazmiy 2018" Sentyabr, 2018 yil.

AUTOPLAY DASTURIDA ELEKTRON DARSLIKLAR YARATISHNING AFZALLIKLARI

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Annotatsiya: Mazkur maqolada elektron darsliklar uchun Autoplay dasturlarining afzalliklari haqida bir qancha ma'lumotlar keltirilgan. AutoPlay dasturidan foydalanish foydalanuvchilar uchun juda oson va qulay interfeysni taqdim etadi. AutoPlay Media Studio bilan ishlashda deyarli dasturlash ishlari talab qilinmaydi.

Kalit so'zlar: Autoplay, dastur, darsliklar, foydalanuvchilar, ma'lumotlar, avtomatik.

Abstract: This article provides some information about the advantages of Autoplay software for e-textbooks. AutoPlay provides users with a very simple and convenient interface. Almost no programming is required when working with AutoPlay Media Studio.

Keywords: Autoplay, program, tutorials, users, information, automatic.

Аннотация: В этой статье представлена некоторая информация о преимуществах программ Autoplay для электронных учебников. AutoPlay предоставляет пользователям очень простой и удобный интерфейс. При работе с AutoPlay Media Studio практически не требуется никакого программирования.

Ключевые слова: автозапуск, программа, обучающие программы, пользователи, информация, автоматический.

Autoplay dasturi

Keyingi yillarda multimedia hujjatlarini yaratishga oid juda ham ko'plab dasturiy ta'minotlar ishlab chiqilgan. Ulardan biri AutoPlay dasturidir. Istalgan fayl yoki fayllar to'plamini bitta muhitga birlashtirish, qolaversa, CD yoki DVD disklar uchun Autorun-menyusi hosil qilishda AutoPlay Media Studio eng kuchli vizual paket hisoblanadi. Multimedia texnologiyalariga asoslangan amaliy dasturlarni yaratish uchun AutoPlay Media Studio dasturidan foydalanish foydalanuvchilar uchun juda oson va qulay interfeysni taqdim etadi. AutoPlay Media Studio bilan ishlashda deyarli dasturlash ishlari talab qilinmaydi. Foydalanuvchi faqat turli dizaynli dasturiy muhitni tanlash uchun bir nechta tayyor shakllardagi loyiha shablonlaridan foydalanishi

mumkin. Bunda amaliy dastur muhitini dizaynga boy holatga tashkil etish uchun AutoPlay dasturiy vositasi tarkibida tayyor obektlar mavjud bo'lib, ular tarkibiga buyruq tugmasi, tovush kuchaytirgichi, fayllarni printerdan bosmaga chiqarishni ta'minlovchi, Web-saytlarni ochuvchi va ularga murojaatni amalga oshirib beruvchi qator funksional obektlarni kiritish mumkin. Amaliy dastur uchun grafik qobiqlarni yaratish, uni avtomatik ishga tushirish uchun AutoPlay Media Studio barcha kerakli fayllarni o'zi yaratadi. Foydalanuvchilar zimmasiga esa faqat qattiq disk va kompakt diskni yozish uchun tayyor loyihalarni shakllantirish vazifasi qoladi. Dastur foydalanuvchilarga obektlarni o'zaro bog'lashni amalga oshirishga yordam beradigan yuzlab vositalarni taqdim eta oladi. AutoPlay Media Studio dasturi muhitida Visual Basic, Visual C++, Java, Macromedia flash kabi qator tizimlarda yaratilgan hujjatlarni ham bema'lol qayta ishlash mumkin. Dastur yordamida animatsiyalanuvchi menyuni, kataloglar daraxtini, ma'lumotlar bazasini va shunga o'xshash obektlarni nafaqat tez yaratish, balki ularni boshqarish ham mumkin. Avtomatik ishga tushuvchi oynalarni o'zining kutubxonasidagi "niqob"lardan foydalangan holda ixtiyoriy shaklda (formada) yaratish mumkin. Bunday "niqob" sifatida .jpg, .bmp va .png kabi formatdagi fayllardan foydalanilsaham bo'ladi. Qolaversa, ma'lumotlarni CD uchun tayyorlagan holda uni dasturning o'zidan turib, CD yoki DVDga yoza olishi AutoPlay Media Studio dasturi naqadar keng imkoniyatlarga ega ekanligini ko'rsatadi. Tayyor loyiha bunda .exe kengaytmali fayl sifatida o'zi ochiluvchi arxiv ko'rinishda yoki qattiq diskdagi alohida papkada shakllantirilishi mumkin.

Elektron darsliklar yaratishda Autoplay dasturlarining qo'llanilishi bir qancha afzalliklarga ega. O'rganish va ta'lim muassirlashtirish jarayonlarida Autoplayning qo'llanilishi bilan bir ko'p ma'lumotlarni qo'shish, grafiklarni aniqlash va foydalanuvchilarning amaliyotini baholash mumkin. Ular, foydalanuvchilarga tez va oson foydalanishni, o'rganishni osonlashtirish, va kontentni boshqarishda qulayliklar yaratish imkoniyatini beradi. Autoplay, darslikni ochishda o'z-o'zidan multimedia (video yoki audiolarni) boshlash imkoniyatini beradi. Bu, foydalanuvchilarning ochish tugmasini bosishi yoki sahifani yuklab olishga tushinmasdan, darslikni tez va oson boshlashlari uchun imkoniyat yaratadi. Autoplay, foydalanuvchilarga darslik ochilganda vaqt yo'qolmasligi hissini yaratadi. Bu, darslik boshlanib ketishi bilan birga, foydalanuvchilarning sahifaga oid bo'lgan kontentga tez va oson kirishlari uchun muhimdir. Autoplay, darslikni o'qib olish uchun barcha ma'lumotlarni bir necha marta tiklash va boshlash uchun bir nechta bosqichda o'qishni talab qiladi. Bu, internet trafikini tejash uchun avtomatik ravishda darslikni boshlashning osonligini oshiradi shu bilan birga Autoplayning ijobiy ta'sirlari bajarilishi, foydalanuvchilar uchun o'rganishni osonlashtiradi va ta'lim matnlarini ko'rish uchun to'g'ri yetarli vaqtni bermoqda. Bu, qulay va oson foydalanish imkoniyatini yaratadi.

O'rganish Jarayonini Tezlashtirish:

Autoplay, foydalanuvchilarga darslik ochilganda vaqt yo'qolmasligi hissini yaratadi. Bu, darslik boshlanib ketishi bilan birga, foydalanuvchilarning sahifaga oid bo'lgan kontentga tez va oson kirishlari uchun muhimdir. Bu afzallik o'rganish jarayonini tezlashtiradi va darslikni ko'rishni boshlash uchun qisqa vaqt sarflanadi.

Qo'lga Kirish Vaqtini Tezlashtirish:

Autoplayning ishlatilishi foydalanuvchilarni darslikni ko'rish uchun tez tayyorlashda qo'llab-quvvatlaydi. Darslikni ko'rib chiqish tugmasini bosib yoki darslikning saralangan sahifasiga o'tishni kutmayman, degan talablar yo'qolmasligi hissiyatini yaratadi.

Multimedia Ko'rsatish va Ko'ngil Oshirish:

Autoplay, multimedia darsliklarda ko'ngil ko'rsatishni oshiradi. Video yoki audio avtomatik ravishda boshlanishi, foydalanuvchilarni darslikga oid bilim va malumotlarga qo'rqib ketish uchun ko'ngil oshirishni oshiradi.

Darsliklar O'qilganda Mavjud Ma'lumotni Yuklab Turish:

Autoplay, darslikni o'qib olish vaqti davomida, yana bir necha darslikni yuklab turishni ta'minlaydi. Bu, internet trafikini tejash uchun avtomatik ravishda darslikni boshlashning osonligini oshiradi va foydalanuvchilarga ma'lumotlarini ochishda bekor qolish hissiyatini yaratadi.

O'rganish Natijalarini Ko'rish:

Autoplay dasturlari, foydalanuvchilarning darslikdan chiqib ketganlarida, o'rganish natijalarini ko'rishlari uchun imkoniyatlar yaratadi. Bu, muassirlashtirilgan ta'lim jarayonlari uchun ko'plab foydalanuvchilar uchun qulaylik yaratadi.

Foydalanilgan adabiyotlar:

1. Tillaev A.I. Axborotdan foydalangan holda pedagogik dasturlarni yaratish va ulardan foydalanish texnologiyalar. "Amaliy fanlarning zamonaviy muammolari" xalqaro konferensiya tezislari matematika va axborot texnologiyalari - al-Xorazmiy 2018" Sentyabr, 2018 yil. Toshkent, 208-bet.
2. M.Aripov va boshkalar. "Informatika va xisoblash texnikasi asoslari" oliy o'quv yurtlari uchun, TTDU, 2002 y.
3. Hoshimov O.O, Tulyaganov M.M. Kompyuter va raqamli texnologiyalar Toshkent yangi asr avlodi-2009. 103-bet.

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**АЛЮМИНИЙ, ГАЛЛИЙ, ИНДИЙ ВА ҚАЛАЙ ИОНЛАРИНИ ТУРЛИ
ОБЪЕКТЛАРДА АНИҚЛАШ УЧУН СЕЗГИР ҚАВАТЛИ
ЛЮМИНЕСЦЕНТ ДАТЧИКЛАРНИ ҚЎЛЛАШ**

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Кириш ва мавзунинг долзарблиги. Охирги йилларда экологиянинг ифлосланиши яъни атроф-муҳитнинг турли хил оғир ва захарли металллар билан захарланишининг ортиб бораётганини кузатишимиз мумкин. Бунга эса ишлаб чиқаришнинг ошганлиги сабаб бўлиб ҳисобланади. Мамлакатимизнинг экологик хавфсизлигига таҳдид солувчи асосий миллий таҳдидлар қаторида сув ресурсларининг ифлосланиши, табиий ва техноген офатлар, ишлаб чиқариш ва маиший чиқиндилар, айрим ҳудудларнинг радиацион ифлосланиши, ер ости сувларининг ифлосланиши кабиларни алоҳида таъкидлаш лозим [1-3].

Атроф-муҳит, озик-овқат, ичимлик ва оқава сувлари таркибидан алюминий, галлий, индий ва қалай ионларининг руҳсат этилган миқдорлари назорат қилиб турилмаса, аҳоли саломатлиги учун хавф туғдиради. Бугунги кунга келиб захарли металлларни аниқлаш учун ишлаб чиқилган усулларнинг метрологик ва аналитик хусусиятларига қўйиладиган талаблар тобора ортиб бормоқда, бу эса ушбу металллар ионларини аниқлашнинг замонавий усулларини ишлаб чиқишни тақозо қилади [4-6].

Таҳқиқотнинг мақсади: сорбцион-флуоресцент усулдан фойдаланган ҳолда турли объектлар (атроф-муҳит, озик-овқат, ичимлик ва оқава сувлари) таркибидан алюминий, галлий, индий ҳамда қалай ионларини аниқлаш усулини ишлаб чиқишдан иборат.

Таҳқиқот объектлари ва усуллари. Бугунги кунда атроф-муҳит, озик-овқат, ичимлик ва оқава сувлар каби объектларда элементларнинг паст миқдорини, юқори аниқликда аниқлай оладиган методлар фақат бир қанча элементлар учун мавжуд ҳисобланади. Бундай ҳолларда селективлик ва сезgirлиги юқори бўлган усулларга талаб юзага келади. Бундай талабларга эса иммобилланган органик реагентлардан фойдаланган ҳолда люминесцент анализ қилиш тўлиқ жавоб беради.

Мураккаб таркибли намуна эритмаларида элементларни миқдорий аниқлашнинг самарадорлиги ва юқори танлаб таъсир этувчанлигини истиқболи - иммобилланган органик реагентларни қўллаш ҳисобланади. Бундай объектларга атроф-муҳит ва озик-овқат маҳсулотлари: (сут, гўшт, нон ва бошқалар) киради.

Кўрсатилган объектлар анализининг қуйидаги қатор жиҳатлари мавжуд: анализ қилинаётган объектни анализга тайёрлаш, ундан кейин ажратиш ва концентрлаш амалга оширилади. Иммобилланган органик реагентлардан фойдаланиш орқали ушбу (ажратиш ва концентрлаш) босқичлар камаяди. Олинган намунани анализи қуйидаги босқичлардан иборат:

1. Объект намунасини анализга тайёрлаш;
2. Органик реагентни иммобиллаш ва аниқланадиган металл учун сенсор танлаш;
3. Люминесцент усулда намунани анализ қилиш (градуировкали график ёки қўшимчалар методида).

Текширув объектлари сифатида таркибида алюминий, галлий, индий ва қалай ионларини сақлаган озик-овқат маҳсулотлари, қатор юқори тоза моддалар, табиий ва оқава сувлар, атроф-муҳит объектлари ва стандарт намуналари анализ қилинади. Сизгир қаватли сенсорлар вазифасини иммобилланган оксиазобирикмалар ва полиоксифлавонлар бажаради.

Олинган натижалар ва унинг таҳлили. Ишлаб чиқилган алюминий, галлий, индий ва қалай ионларини морин, кварцетин ва эриохром қизил В билан сорбцион-флуориметрик аниқлаш методлари иммобиллаш сабабли эритмадагига нисбатан аниқлаш даражасининг пастлиги, юқори танлаб таъсир этувчанлиги билан ҳамда ҳалақит қилувчилардан тозалаш учун қўшимча (ажратиш, концентрлаш) амалларни бажаришни талаб қилмаслиги билан ажралиб туради. Органик реагентларни иммобиллаш орқали уларни аниқлашнинг аниқлиги ва экспресслиги оширилади.

Қўрсатилган элементларни аниқлаш учун ишлаб чиқилган сорбцион-флуориметрик усул ўзининг юқори сезгирлиги ва танлаб таъсир этувчанлиги туфайли турли соҳалардаги кенг қўлланилади:

- материалларнинг ҳоссаларига ва уларни қўллаш жараёнига таъсир кўрсатувчи аралашмаларни элемент анализ қилиш (махсус тоза моддаларни) учун;

- атроф-муҳит объектлари (табиий ва оқава сувлар, минерал ҳомашёлар)ни захарли металллар билан ифлосланишини назорат қилиш учун;

- озик-овқат маҳсулотларидан захарли элементларни назорат қилиш учун;

Ишлаб чиқилган методнинг рационал фойдаланиш учун асосий жиҳати ушбу реагентни маълум объектларда қўллаш имконининг мавжудлигидир. Олинган анализ натижаларнинг тўғрилиги қўшимчалар қўшиш, бошқа анализ методлари натижалари ва стандартлар билан таққослаш орқали текширилади.

Қўшимчалар қўшиш методи бўйича аниқлашни бажариш: 15 мл хажмли учта пробиркага 10; 30; 50 мкг металлнинг стандарт эритмалари ва тўртинчи пробиркага – 1 мл анализ қилинадиган намуна эритмаси, бешинчи пробиркага – бўш намуна қуйилади. Барча пробиркаларга бир хил қилиб буфер, эритувчи ва ниқобловчи эритмалар қуйилади. Тайёрланган аралашма иммобилланган реагент билан томчи кюветаси орқали ўтказилади ва флуориметрланади. Ҳисоблашлар градуировкали график ёки (1) формуладан фойдаланган ҳолда қўшимчалар усулида амалга оширилади.

$$\%, \text{Me} = \frac{\Delta C_{\text{Me}}(I_x - I_0) \times 10^{-4} \times V_{\text{умум}}}{I_{\text{ДС}} \times V_{\text{ал}}} \quad (1)$$

бу ерда, I_0 , I_x , $I_{\text{ДС}}$ – бўш намунанинг флуоресценция интенсивлиги, текшириладиган эритма, маълум қўшимча бўлган текшириладиган эритма;

ΔC_{Me} – қўшилган аралашма миқдори, мкг;

g – текширилаётган намуна массаси, г;

$V_{\text{умум}}$ – текширилаётган намунанинг умумий ҳажми;

$V_{\text{ал}}$ – аниқлаш учун олинган алиқвот қисм ҳажми, мл.

Ҳар бир аниқ намуналарни анализ қилишда намунани аниқлаш учун намунани, унинг компонентлари ва бошқаларни эритмага ўтказилади.

Айрим металлларни мураккаб объектлар – тоғ жинслари, минерал хомашё турлари, айниқса “бойитилмаган” руда материалларидан аниқлаш учун паст аниқлаш чегарасида юқори селективликли методларни талаб қилинади.

Галлий ва индийни жуда кам миқдорини сақловчи таббий намуналарда улар аралашма ҳолида бўлади, чунки уларни қайта ишлашда турли қўшимчалар аралаштирилади. Шунинг учун уларни аниқлашда юқори селектив ва паст аниқлаш чегарали методлардан фойдаланилади.

Қалай ионини замонавий техника соҳаларида кўп қўлланилиши уни аниқлаш методини ишлаб чиқишни талаб қилади. Юқори частотали материаллар ва ярим ўтказгичларни баҳолашда қўлланилиб келинаётган қалай ионини аниқлашнинг бизга маълум бўлган усуллари ўзининг сезгирлиги ва селективлиги бўйича ушбу усулдан фарқ қилмайди.

Минерал хомашёлар стандарт намуналарини очиш

а) Полиметалл рудалар, дацитлар

Оғирлиги 0,5-1 грам бўлган намунани 250 мл ҳажмли стаканга солиб, 15 мл хлорид кислота ($p=1,19$) билан дастлаб совутилиб, кейин қиздириб водород сульфид ажралиб чиқиши тўхтагунча қиздирилади, 5-10 мл нитрат кислота (1:1) куйилади ва қуригунча буғлатилади. Икки карра ортиқ хлорид кислота солинади ($p=1,4$) ва нам тузгача буғлатилади. 30 мл хлорид кислота (1:1) куйилади ва туз эригунча қайнатилади. Эритма 50 ёки 100 мл ҳажмдаги ўлчов колбасида филтрланади.

б) СТ-ІА (трапп), мис-рух сульфидли рудалар (Рус туридаги)

Оғирлиги 0,5-1,0 гр намуна қайноқ водород хлорид ва нитрат кислота (2:1) аралашмасида аралаштирилади ва қуригунча нитрат кислотада уч карра қурилади. Нам қолдиққа 8 мл нитрат кислота (1:1), 30-40 мл сув куйиб туз эригунча қайнатилади. Филтрланган эритма 10 % ли натрий гидроксид эритмаси билан нейтралланади. Эҳтиётлик билан нитрат кислота ва шундай концентрацияда ишқор куйилади. 5 минутдан кейин қайноқ қолдиқ филтрланади ва 5 мл иссиқ нитрат кислота (1:1) да эритилиб, умумий ҳажми 50-100 мл бўлгунча сув куйилади.

в) 6 М (гранит) СЭВ

Оғирлиги 0,5-1 г бўлган руда намунаси платина тигелга жойланади, 1 мл дан нитрат ва сульфат кислоталар куйилади, тахминан 5 мл фторид кислотаси куйилади, қиздирилади ва қуригунча буғлатилади. Қуриқ қолдиққа 2 гр натрий тетраборат ва қарбанат (3:1) аралашмаси куйилади ва 5 дақиқа 1000 °С давомида қиздирилади. Совутиб 10 мл сульфат кислота (1:1), куйилади ва 3-4 мартаба суюлтирилади. Ҳажми 100 мл бўлган ўлчов колбасида филтрланади ва белгисигача сув куйилади.

Алюминий, галлий, индий ва қалай ионларини аниқлаш учун тайёрланган намуналардан (1 мл) аликвот қисм олиниб, куйида келтирилган тартибдаги методика бўйича аниқланади.

Хулоса. Галлий ионини сорбцион-люминесцент усулда аниқлашда люминофор реагент сифатида эриохром қизил В реагентидан фойдаланиш таклиф қилинди. Реакцияни ўтказиш учун оптимал шароитлар ўрнатилди. Ушбу реагентни турли ташувчиларга иммобилаш имкониятлари ўрганилди ва иммобилашнинг оптимал шароити ўрнатилди. Эритмада ва иммобилашган ҳолларда реагент-металл комплексида люминесценция интенсивлиги текширилди ва иммобилаш люминесценция интенсивлигини ошириши исботланди.

Фойдаланилган адабиётлар рўйхати:

1. <https://daryo.uz/k/2023/08/31/shavkat-mirziyoyevning-ozbekiston-mustaqilligining-32-yilligiga-bagishlangan-tantanali-marosimdagi-nutqi>.
2. X.Sh. Bobojonov, X.U. Usmanova, Z.A. Smanova. Влияние иммобилизации на химико-аналитические свойства оксиазореагентов и гидроксидантрахинонов // O'zMU xabarlari. -2020. –В, 193-196.
3. Золотов Ю.А. Вклад ученых СССР в развитие люминесцентного анализа // Журн. аналит. химии. -2014. -Т. 69. -№ 8. -С. 887-894.
4. X.Sh. Bobojonov, X.U. Usmanova, Z.A. Smanova. Эриохром қизил в реагенти ёрдамида галлий ионини қаттиқ фазада люминесцент усулда аниқлашнинг аналитик жиҳатлари // JOURNAL OF NEW CENTURY INNOVATIONS. Volume–42 33_Issue-1_Iyul_2023.
5. X.Sh. Bobojonov, X.U. Usmanova. Алюминийни қаттиқ фазада люминесцент усулда аниқлашда оксиазобирикмаларни иммобилашни кимёвий-аналитик хоссаларини яхшилаш // Сборник материалов Республиканской научно-практической конференции. Институт общей и неорганической химии АН РУз. Ташкент 12-14 май 2022 года. 110-112 б.
6. X.U. Usmanova, X.Sh. Bobojonov. Атроф муҳит объектларидан кўрғошин ва рух ионларини люминесцент усулда аниқлашда қўлланиладиган органик реагентлар// “Комплекс бирикмалар кимёси ва аналитик кимё фанларининг долзарб муаммолари” республика илмий-амалий конференцияси материаллари тўплами (2022 йил 19-21 май). Термиз.: “ТерДУ босмахонаси”. 132-133 б.
7. X.U. Usmanova., A.Yangibayev., Z.A. Smanova. Комплексообразование ионов алюминия с иммобилизованными аналитическими реагентами // Universum: химия и биология.: электронный научный журнал. Москва . -2016. - № 9 (27).

SELECTION OF LUMINOPHORE REAGENTS FOR THE DETERMINATION OF GALLIUM ION BY THE SORBTSION-FLUORESTCENT METHOD

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Abstract. In this article, the choice of organic luminophore reagent for the determination of gallium ion from the composition of various objects by the sorption-fluorescence method and the selection of optimal conditions for the formation of a

complex from the reagent-metal system are considered. The importance of immobilization of the chosen reagent to different carriers was studied and the immobilization conditions were considered.

Key words: gallium, eriochrome red B, luminescence, sorption-fluorimetry, immobilization, solid phase, luminophore.

Аннотация. В данной статье рассмотрен выбор органического люминофорного реагента для определения иона галлия из состава различных объектов сорбционно-флуоресцентным методом и подбор оптимальных условий образования комплекса из системы реагент-металл. Изучена важность иммобилизации выбранного реагента на различных носителях и рассмотрены условия иммобилизации.

Ключевые слова: галлий, эриохром красный В, люминесценция, сорбционно-флуориметрия, иммобилизация, твердая фаза, люминофор.

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ВЕРА — ДОВЕРИЕ - ДОСТОВЕРНОСТЬ: КОГНИТИВНЫЙ И КОММУНИКАТИВНЫЙ АСПЕКТЫ

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Аннотация: В данной статье говорится о понятии вера и о её лексемах. Роль достоверности в коммуникативной сфере.

Ключевые слова: вера, доверие, достоверность, доказательство.

Поскольку концепты «доверие» и «достоверность» непосредственно связаны с концептом «вера», считаем необходимым вначале обратиться к концептологическому рассмотрению феномена «вера».

Вера - одна из важнейших ценностных составляющих жизни и деятельности человека, сопровождающая его с раннего детства, когда ребенок осваивает окружающую действительность через доверие взрослым, и «существует на глубинном уровне отношения к реальности в виде не подлежащих сомнению верований, формирующихся с самого детства». Нет необходимости говорить, что человек не может жить без веры. Полное безверие — состояние редкое и нереальное, при котором человек теряет направляющее начало.

«Вера - особая психическая модальность, главный механизм санкционирования воспринимаемой информации, того, что полагается реальным (или нереальным)». Вера базируется на способности человека к объективной необходимости доверять другим людям. Поскольку человек постоянно сталкивается с разнообразными ситуациями, требующими от него принятия решения, а полной информацией он, как правило, не располагает, то это вынуждает его либо верить (доверять и вверяться) кому-либо или чему-либо, либо сомневаться, не верить, отвергать предложенное или случившееся.

Вера относится к числу концептов, отравляющих к высшим универсальным (общечеловеческим) ценностям. Этимологически вера соотносится с понятием «истина»/«правда», «истинный» (от лат. *veritas* — «истина», *verus* — «истинный»), с одной стороны, «надёжность», «доверие» — с другой. В древнегерманских языках данные понятия зафиксированы в семантике следующих имен: др.-англ. *treow* «вера, верность, правда», др.-исл. *tryggr* «верный, надёжный», а также гот. *trauins* «доверие», надёжность, *tranap* «доверять». По словам Ю. С. Степанова, общеиндоевропейское значение «верить», «уповать», «питать доверие» выражается древним словосочетанием, буквально истолковываемым как «класть сердце».

Первое же приближение к определению содержательного минимума понятия «вера» убедительно демонстрирует, что вера - понятие отнюдь не

элементарное. В первую очередь понятие «вера» ассоциативно связывается с религиозным представлением о вере. С религиозных позиций вера есть следствие непосредственно чувствуемого, переживаемого и осознаваемого разумом человека живого и истинного откровения. Такая вера не подвержена сомнениям, не требует доказательств и обнаруживает себя как созерцание факта невидимого, проявленного в факте видимом. В Православной энциклопедии также выделены три значения понятия веры: вера как убеждённость — в сфере интеллекта; вера как уверенность — в сфере чувств; вера как надежда — в волевой сфере [ПЭ].

В обыденном сознании большинства людей слово “вера” обладает следующим значением: “верить” — 1) быть убежденным, уверенным в ком-чем-нибудь.; 2) принимать за истину что-н; 3) вполне доверять [СОШ].

Несколько иное значение имеет лексема “верный”, репрезентирующая концепт «вера». В семантической структуре выделяются следующие компоненты: 1) истинный, правильный точный; 2) неизбежный, несомненный; 3) надёжный, прочный, где истинный/правдивый являются ядерными. Кроме того, прилагательное “верный” при актуализации в контексте приобретает статус истинностной оценки и затрагивает области модальной характеристики сказанного (верное рассуждение) или ценностной характеристики, сближающейся с интенсификаторами положительных качеств предмета, индивида (верный ленинец, теория верна, верное решение, верный идеалам коммунизма), имплицитными значение истинности, правильности, убеждённости, приверженности.

Любопытно отметить, что в значении лексем “вера”, “верить” фиксируется представление о непроверенности, недоказанности истинной природы того, во что верят, характерное для наивного сознания:

— Софи, всякая вера на этой земле основана на фабрикации. Это подпадает под само определение веры как таковой. Что есть вера, как не принятие того, что мы лишь считаем непреложной истиной, того, что мы просто не в силах доказать? [Д. Браун, КВ].

Вера, как и ее антипод неверие, являлись предметом исследования многих поколений теологов, философов, а в последнее время и психологов. С точки зрения психологии вера — 1) особое состояние психики, заключающееся в полном и безоговорочном принятии человеком, его разумом и душой, фактов внутреннего и внешнего существования живого, истинного откровения; фиксируясь в идеях и образах, эти факторы могут стимулировать и направлять последующие деяния человека; 2) признание чего-либо истинным с такой решительностью, которая превышает силу внешних фактических и формальнологических доказательств. Психологи, таким образом, обращают внимание на самостоятельность, субъективность психологического акта веры,

интенсивность проявления которого не зависит полностью от эмпирического и логического основания.

Помимо однокоренных слов “доверие” и “достоверность”, в русском языке есть много других, которые связаны со словом “вера”: верность, удостоверение, верование, уверенность, поверие, уверовать, сверить, проверить, заверить, суверенитет, доверенность, вероятность, двоеверие и т.п. Анализ обширного дефиниционного материала показывает, что в значении слова 'вера' и лексем, близко связанных с данным понятием, фиксируются следующие основные признаки: 1) отношение, состояние; 2) затрагивающее область разума и/или психики; 3) субъективность; 4) сознательность; 5) отсутствие теоретических и практических доказательств истинности, достоверности объекта/содержания веры.

Слово “вера”, таким образом, обозначает и специфический ментально-психологический акт, и его содержание — объект веры. Объекты веры многообразны и многолики: от недостоверных в настоящее время, но потенциально проверяемых в будущем теорий и представлений до принципиально недоказуемых рациональным способом явлений природной, социальной и духовно-интеллектуальной деятельности, от конкретных объектов, человеческих личностей до абстрактных (воображаемых) сущностей и идей. Человек верит кому/чему-то или в кого/что-то: верит людям, друзьям, слухам, байкам, лжи, прогнозам, в любовь, в себя, в рай, в научные теории, в коммунизм, инопланетян, в приметы, в людей, в Бога, в успех и т.д. По сути дела, под словом “вера” в русскоязычном сознании с равным успехом подразумеваются как религиозное убеждение, приверженность и преданность какому-либо идеологическому учению, так и повседневные явления и отношения. Кроме того, большинство случаев употребления предиката “верить”, ориентированного в будущее, с непропозициональными объектами отражает положительное эмоциональное состояние субъекта веры: верить в победу, в светлое будущее, в любовь (ср. невозможность сочетания предиката верить с номинантами отрицательных эмоциональных состояний в ненависть, в ревность, и другие имена с отрицательной коннотацией верить в поражение, в неудачу, в предательство и др.).

На самом общем уровне по объекту веры принято дифференцировать веру религиозную и нерелигиозную - светскую веру. В религиозной картине мира реальность структурирована, выделяются мир естественный и мир сверхъестественный, центром последнего является Бог, вера в реальность которого и является основополагающим догматом христианской религии. Религиозный дискурс концентрируется вокруг системообразующей, концептуальной доминанты «вера», приобщение к которой является основной целью религиозного дискурса. По сути, можно говорить о религиозной вере не

как об ипостаси веры, а как отдельном специфическом феномене, в котором особое душевное состояние восприимчивости к взаимодействию с неким Высшим началом преобладает над разумным отношением, и которое характеризуется 1) высокой степенью субъективности и убежденности; 2) отсутствием необходимости в верификации истинности. Вера в так называемом светском ракурсе может рассматриваться в двух основных аспектах - эпистемологическом и межличностном. Первый соответствует научному дискурсу, второй — бытовому.

Существует устойчивое стереотипное представление о противопоставленности религиозной веры («слепая вера») и знания и, наоборот, что научная вера основана на глубоких знаниях природы вещей и явлений, уверенности человека в истинности научных положений или общественных идей. Знание, как известно, может быть рациональным, опирающимся на объективную достоверность, проверяемость данных, и иррациональным, основанным на субъективной достоверности, непроверяемости. В связи с этим выделяют веру рациональную и иррациональную.

Здесь же, в коммуникативном контексте, обнаруживаются определенные различия между верой и знанием. Формально семантическую структуру глаголов пропозиционального отношения принято изображать следующим образом:

Верить: А верит, что В

Знать: А знает, что В.

Различие между верить и знать обусловлено тем фактом, что в первом случае А считает В истинным и достоверным, что в действительности необязательно, а во втором — А считает В истинным и достоверным, при этом В таковым и является.

Данные предикаты описывают, используя терминологию И. Б. Шатуновского, «имение» субъектом в уме мысленного объекта (или, другими словами, наличие в концептуальной картине мира субъекта того или иного фрагмента, образа). Очевидно, что при употреблении глагола верить немаловажным представляется факт оценивания Р говорящим. Если предикат знать вводит тип пропозиции, достоверность которой не нуждается в верификации (то, что имеется в уме - истинная пропозиция), то предикат верить присоединяет неверифицируемые пропозиции:

Я знаю, что Ширин родилась во французском городе Мадрид.

Я верю, что судьбу можно корректировать.

Другими словами, отличие эпистемических предикатов знать и верить друг от друга обнаруживается в характере презумпций, касающихся истинности В (пропозиции): Он знает о твоём желании помочь ему (презумпция: ты хочешь ему помочь); Он верит в твоё желание ему помочь (нет подобной презумпции).

Если у предиката “верить” обнаруживается презумтивный компонент «отсутствие достаточных рациональных оснований», то в значении фактивного предиката “знать”, выражающего эпистемическую модальность, реализуется семантический компонент «наличие у субъекта речи информации о ситуации, оцениваемой как истинная».

— Есть, Иван Ильич, три вида отношения к будущему и настоящему, — Первое — знание, основывается на достаточных и достоверных данных. Второе — надежда. Основывается тоже на достоверных данных. Но недостаточных. Наконец, третье, что нас сейчас интересует — вера. Это отношение, которое основывается на данных недостаточных и недостоверных. Вера по своему смыслу исключает себя [В. Дудинцев, БО].

В обыденном русскоязычном сознании неоспоримой признается взаимосвязь веры и знания, но отдается приоритет знанию как неотъемлемой составляющей веры: знание - это информация, вера - ощущение. У меня не может быть ощущения истинности чего-то, о чем я не имею никакой информации. Соответственно, знание первично.

Я получил информацию, что идет дождь. Если источник информации - мои собственные глаза, то это «надёжный» источник, информация получает статус достоверной и, как следствие, я верю, что идет дождь. Если источник недостоверный (рассказ вруна или наличие косвенных признаков дождя), я не присваиваю информации статус знаний, и вера не возникает [Вера и знание: <http://kuraev.ru/index.>].

Во всех рассматриваемых типах дискурса вера связана с достоверностью. В религиозном дискурсе вера основывается на достоверности, истинности постулируемых положений, религиозном опыте. В научном дискурсе, где центральными концептами выступают истина, достоверность, знание, и, в частности, в эпистемологическом плане вера базируется на принятии вероятностных утверждений в качестве достоверных, другими словами, вера выступает в форме возможности и основывается на допущении достоверности / истинности чего-либо. Если возможность становится реальностью, то вера преобразуется в уверенность, отсутствие сомнений. Достоверность полученных результатов в процессе познания знаменует переход веры в новое качество - знание.

В плане межличностных отношений вера в большей степени зависит не от знания как продукта той или иной научной парадигмы, а от эмпирического опыта, что рождает доверие / недоверие к субъекту, в частности, партнеру по коммуникации: ты мне веришь? = ты мне доверяешь?

— Я могу позволить себе **верить** только на **основе личного опыта**, — Личного опыта, который, к примеру, говорит: «Дед Тимофей всегда верно

предсказывает погоду». Здесь я **доверяюсь** своему опыту и получается уже не вера — а почитай что знание [В. Дудинцев, БО].

Доверие в межличностном контексте программирует действия, определенное поведение человека. В основе многих поступков человека лежит сознательная необходимость доверия другим людям, потребность верить.

В модели межличностного общения, конструируемой Ю. С. Степановым, выделяется два актанта: А и Б, вступающих в «круговорот общения». По словам исследователя, «актант А, «носитель веры», вручает, дает или поверяет свое «доверие» актанту Б («верит ему» или «верит в него»). Но этому акту предшествует некий акт со стороны актанта Б, которым Б «внушает доверие» актанту А. Это «внушение доверия» - еще не «Вера», но как бы ее эмбрион, нечто такое в ответ на что у актанта А может появиться вера». При этом отмечается, что акт «внушения доверия» проходит несколько этапов, а весь процесс носит рекуррентный характер.

Следует заметить, что между верой научной, основанной в большей степени на коллективных знаниях, и верой личностной, апеллирующей к собственным знаниям и индивидуальному опыту, существует, на наш взгляд, определенное различие: вторая менее категорична, более субъективна, базируется на переходе от веры к мнению, что в тексте выражается с помощью ментальных предикатов верить, поверить, считать, допускать. Так называемые *belief verbs* (глаголы полагания) вводят пропозицию, выражающую некое ментальное содержание индивидуального сознания, которое подразумевает мнение о вероятности некоторого явления / ситуации.

— А мои друзья, люди **глубоко верующие, считают**, что Христос действительно ходил по воде, действительно умел превращать воду в вино, действительно родился от непорочной девы [Д. Браун, КВ].

Предикат «доверять» выражает более детерминированные ментальные состояния, нежели “верить/поверить”: Я могу поверить в/ что Р —у меня есть некие основания в это верить ...-“ Я могу доверять. У — у меня есть достаточные основания для этого, даже если основания доверия не осознаются как обоснованные: Интуиция подсказывала Лэнгдонучто Тибингу молено доверять абсолютно и полностью [Д. Браун, КВ].

Одним из средств и условий создания доверия является искренность. Например: - Я не слишком-то доверяю людям, которые публично распинаются в своем патриотизме. В подобных излияниях всегда улавливается некая фальшь. Недаром же на Востоке издревле существует поговорка: имеющий мускус в кармане не кричит об этом на улицах, ибо запах мускуса сам выдает себя... [В. Пикуль, Каторга].

Доверие выступает одним из базовых факторов эффективности коммуникации. В стандартной коммуникативной ситуации имеется презумпция

доверия. Оценка поведения говорящего как неискреннего служит основой негативного прогнозирования его будущих поступков и способствует возникновению недоверия к его последующим коммуникативным действиям:

А недоверие - это и есть та бледная тонкая травинка, которая неуклонно растет и взламывает асфальтовое шоссе [М. Веллер, ПМЗ].

Искренность и доверие, таким образом, предстают как взаимосвязанные свойства общения, дискурсивные концепты, объединенные концептом «вера», которая входит и в когнитивную сферу искренности (говорящий верит в то, что говорит, даже если содержание высказывания не соответствует действительности), и в когнитивную сферу доверия (доверие к полученной информации базируется на вере адресата говорящему субъекту).

Доверие сегодня предстает как фундаментальное явление, неперенный элемент межличностного взаимодействия на всех уровнях человеческой деятельности. Само доверие может рассматриваться с различных, но взаимосвязанных сторон: доверие к миру как базовая установка личности, доверие к себе как психологический феномен, доверие к другому как аспект социально-психологического поведения. Последнее представляет собой явление сложного порядка, основывающееся на эмоциональном и/или рациональном уровне восприятия: 1) личности говорящего, его харизматичности, обуславливающей интуитивную веру / доверие к носителю информации; 2) поведения говорящего, квалифицируемого как правдивое, искреннее в здесь-и-сейчас ситуации общения или на основании предыдущего опыта; 3) содержания высказывания, оцениваемого как соответствующее реальному положению дел.

Резюмируя сказанное, заметим, что содержательно понятие «вера» многолико, выступает в качестве центральной мировоззренческой аксиомы религиозных систем, интеллектуальной убежденности, чувственной уверенности. Смысл русского слова «вера» собирателен. Вера ориентирована на разнообразный реальный / нереальный мир, базируется на способности человека признавать истинность без достаточных оснований, что может быть выражено в форме доверия, субъективной достоверности или убежденности, носит вероятностный характер. Предикат «верить» в отличие от предиката «знать» характеризует не только эпистемическое, но и эмоциональное (положительное) состояние. Различие в семантике предложений с «верить» и «знать» - в характере презумпций относительно истинности пропозиции, что отражается в субъективности веры и объективности знания.

В завершение подчеркнем, что достоверность является сложным ментальным образованием, когнитивное пространство которого заполняют не менее сложные универсальные и этноспецифические концепты, объединяющие в единую концептосферу отнюдь не элементарные феномены - веру, истину, искренность, доверие. На формирование коммуникативной сущности

достоверности в процессе межличностного взаимодействия, реализуемой в дискурсивном поведении личности, оказывают влияние следующие взаимообусловленные факторы: 1) фактор искренности, откровенности субъекта речи, намерение быть правдивым (установка на правдивость) как исходное условие возникновения доверия и основа позитивного кооперативного взаимодействия; 2) фактор доверия (к говорящему субъекту и/или содержанию высказывания), мотивируемый различными моментами, в том числе и искренностью носителя информации; 3) соответствие содержания высказывания действительности — верификация истинности как условие, позволяющее диагностировать достоверность высказывания.

Список использованной литературы:

1. Беляева Е.И. Достоверность. Теория функциональной грамматики. Темпоральность. Модальность. - Л. : Наука, 1990. - С. 157—170.
2. Бессонова, Л.Е. Коммуникативные аспекты политического дискурса. Ученые записки Таврического национального университета им. В.И.Вернадского. Сер. Филология. Социальные коммуникации, 2003. Том 16 (55). № 01. – С. 22-27
3. Богданов В.В. Речевое общение: прагматический и семантический аспекты. - Л. : Изд-во ЛГУ, 1990. - 88 с.
4. G.N. Narimonova. Psycholinguistics as a tool for in-depth study of speech and language. Science and Education. Volume 3, Issue 2, pp.546-550 (2022)
5. Г.Н. Наримонова. Внешние законы развития языка. НамГУ – научный вестник одаренных студентов. Volume 1, Issue 1, pp. 215-218 (2023)
6. Гулноза Наримонова. Ключевые тенденции развития русского литературного языка. Eurasian Journal of Academic Research. Volume 2, Issue 6, pp. 544-546 (2022)
7. Gulnoza Narimonova. Changes in the Russian Language in the Modern Period and Language Policy. Texas Journal of Philology, Culture and History. Volume 25, pp.40-43 (2023)
8. Gulnoza Narimonova. Modern Information Technologies in Teaching the Russian Language. Journal of Pedagogical Inventions and Practices. Volume 27, pp.3-5 (2023)
9. S. Abdullayeva, G. Narimonova. External laws of language development. Proceedings of International Educators Conference. Volume 2, Issue 3, pp.59-62 (2023)
10. Ш. А. Набиев. Обучение студентов узбекских групп вузов склонению по родам притяжательных местоимений русского языка на основе

грамматических моделей. *Science and Education*. Volume 2, Issue 5, pp.980-985 (2021)

11. Sh. A. Nabiyev. Training the students of uzbek groups of non-philological directions to decline the personal pronouns of the russian language on the basis of the grammatic model. *Scientific and Technical Journal of Namangan Institute of Engineering and Technology*. Volume 2, Issue 4, pp.359-364 (2020)
12. М.И. Тургунбоева, Ш.А. Набиев. Формирование навыков русской речи как неродной у детей среднего дошкольного возраста. *Science and Education*. Volume 3, Issue 5, pp.1531-1535 (2022)
13. Sh.A. Nabiev. Training students of uzbek groups of nonphylogenical directions conjugation of the imperfect verb of the Russian language based on a grammatic model. *EPR International Journal of Research and Development (IJRD)*. Volume 6, Issue 4, pp.33-36 (2021)
14. U.I. Erkaboev, G. Gulyamov, J.I. Mirzaev, R.G. Rakhimov, N.A. Sayidov, Calculation of the Fermi–Dirac Function Distribution in Two-Dimensional Semiconductor Materials at High Temperatures and Weak Magnetic Fields, *Nano*. **16**(9), Article No 2150102 (2021)
15. G. Gulyamov, U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, N.A. Sayidov, Determination of the dependence of the two-dimensional combined density of states on external factors in quantum-dimensional heterostructures, *Modern Physics Letters B*, **37**(10), Article No 2350015 (2023)
16. G. Gulyamov, U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, On Temperature Dependence of Longitudinal Electrical Conductivity Oscillations in Narrow-gap Electronic Semiconductors, *Journal of Nano- and Electronic Physics*, **12**(3), Article No 03012 (2020)
17. U.I. Erkaboev, U.M. Negmatov, R.G. Rakhimov, J.I. Mirzaev, N.A. Sayidov, Influence of a quantizing magnetic field on the Fermi energy oscillations in two-dimensional semiconductors, *International Journal of Applied Science and Engineering*, **19**(2), Article No 2021123 (2022)
18. U. Erkaboev, R. Rakhimov, J. Mirzaev, N. Sayidov, U. Negmatov, M. Abduxalimov, Calculation of oscillations in the density of energy states in heterostructural materials with quantum wells, *AIP Conference Proceedings*, **2789**(1), Article No 040055 (2023)
19. U. Erkaboev, R. Rakhimov, J. Mirzaev, N. Sayidov, U. Negmatov, A. Mashrapov, Determination of the band gap of heterostructural materials with quantum wells at strong magnetic field and high temperature, *AIP Conference Proceedings*, **2789**(1), Article No 040056 (2023)
20. U. Erkaboev, R. Rakhimov, J. Mirzaev, U. Negmatov, N. Sayidov, Influence of the two-dimensional density of states on the temperature dependence of the electrical conductivity oscillations in heterostructures with quantum wells, *International*

Journal of Modern Physics B. (2023).

<https://doi.org/10.1142/S0217979224501856>

21. U.I. Erkaboev, R.G. Rakhimov, Determination of the Dependence of Transverse Electrical Conductivity and Magnetoresistance Oscillations on Temperature in Heterostructures Based on Quantum Wells, e-Journal of Surface Science and Nanotechnology, (2023). <https://doi.org/10.1380/ejsnt.2023-070>
22. U.I. Erkaboev, N.A. Sayidov, R.G. Rakhimov, U.M. Negmatov, Simulation of the temperature dependence of the quantum oscillations' effects in 2D semiconductor materials, Euroasian Journal of Semiconductors Science and Engineering. **3**(1), pp.47-55 (2021)
23. U.I. Erkaboev, G. Gulyamov, J.I. Mirzaev, R.G. Rakhimov, Modeling on the temperature dependence of the magnetic susceptibility and electrical conductivity oscillations in narrow-gap semiconductors, International Journal of Modern Physics B. **34**(7), Article No 2050052 (2020)
24. G. Gulyamov, U.I. Erkaboev, N.A. Sayidov, R.G. Rakhimov, The influence of temperature on magnetic quantum effects in semiconductor structures, Journal of Applied Science and Engineering, **23**(3), pp.453-460 (2020)
25. R. Rakhimov, U. Erkaboev, Modeling of Shubnikov-de Haas oscillations in narrow band gap semiconductors under the effect of temperature and microwave field, Scientific and Technical Journal of Namangan Institute of Engineering and Technology, **2**(11), pp.27-35 (2020)
26. U.I. Erkaboev, R.G. Rakhimov, N.A. Sayidov, Mathematical modeling determination coefficient of magneto-optical absorption in semiconductors in presence of external pressure and temperature, Modern Physics Letters B, **35**(17), Article No 2150293 (2021)
27. U.I. Erkaboev, R.G. Rakhimov, N.Y. Azimova, Determination of oscillations of the density of energy states in nanoscale semiconductor materials at different temperatures and quantizing magnetic fields, Global Scientific Review, **12**, pp.33-49 (2023)
28. U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, N.A. Sayidov, The Influence of External Factors on Quantum Magnetic Effects in Electronic Semiconductor Structures, International Journal of Innovative Technology and Exploring Engineering, **9**(5), pp.1557-1563 (2021)
29. U.I. Erkaboev, R.G. Rakhimov, Determination of the dependence of the oscillation of transverse electrical conductivity and magnetoresistance on temperature in heterostructures based on quantum wells, East European Journal of Physics, **3**, pp.133-145 (2023)
30. U.I. Erkaboev, R.G. Rakhimov , Simulation of temperature dependence of oscillations of longitudinal magnetoresistance in nanoelectronic semiconductor

- materials, *e-Prime - Advances in Electrical Engineering, Electronics and Energy*, **3**, Article No 100236 (2023)
31. U.I. Erkaboev, G. Gulyamov, R.G. Rakhimov, A new method for determining the bandgap in semiconductors in presence of external action taking into account lattice vibrations, *Indian Journal of Physics*, **96**(8), pp.2359-2368 (2022)
32. U.I. Erkaboev, R.G. Rakhimov, N.A. Sayidov, J.I.Mirzaev, Modeling the temperature dependence of the density oscillation of energy states in two-dimensional electronic gases under the impact of a longitudinal and transversal quantum magnetic fields, *Indian Journal of Physics*, **97**(4), pp.1061–1070 (2023)
33. U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, U.M. Negmatov, N.A. Sayidov, Influence of a magnetic field and temperature on the oscillations of the combined density of states in two-dimensional semiconductor materials, *Indian Journal of Physics*, **98**(1), pp.189-197 (2024)
34. U.I. Erkaboev, N.A. Sayidov, U.M. Negmatov, J.I. Mirzaev, R.G. Rakhimov, Influence temperature and strong magnetic field on oscillations of density of energy states in heterostructures with quantum wells HgCdTe/CdHgTe, *E3S Web of Conferences*, **401**, Article No 01090 (2023)
35. U.I. Erkaboev, N.A. Sayidov, U.M. Negmatov, R.G. Rakhimov, J.I. Mirzaev, Temperature dependence of width band gap in $\text{In}_x\text{Ga}_{1-x}\text{As}$ quantum well in presence of transverse strong magnetic field, *E3S Web of Conferences*, **401**, Article No 04042 (2023)
36. U.I. Erkaboev, R.G. Rakhimov, U.M. Negmatov, N.A. Sayidov, J.I. Mirzaev, Influence of a strong magnetic field on the temperature dependence of the two-dimensional combined density of states in InGaN/GaN quantum well heterostructures, *Romanian Journal of Physics*, **68**, Article No 614 (2023)
37. R.G. Rakhimov, Determination magnetic quantum effects in semiconductors at different temperatures, VII International Scientific and Practical Conference “Science and Education: problems and innovations”, February 12, pp.12-15 (2021)
38. G. Gulyamov, U.I. Erkaboev, R.G. Rakhimov, N.S. Sayidov, J.I.Mirzaev, Influence of a strong magnetic field on Fermi energy oscillations in two-dimensional semiconductor materials, *Scientific Bull., Phys. and Mathematical Res.* 3(1), Article No 2 (2021)
39. U.I. Erkaboev, R.G. Rakhimov, N.A. Sayidov, Influence of pressure on Landau levels of electrons in the conductivity zone with the parabolic dispersion law, *Euroasian Journal of Semiconductors Science and Engineering*, **2**(1), pp.27-33 (2020)
40. R. Rakhimov, U. Erkaboev, Modeling the influence of temperature on electron landau levels in semiconductors, *Scientific and Technical Journal of Namangan Institute of Engineering and Technology*, 2(12), pp. 36-42 (2020)

41. R.G. Rakhimov, Clean the cotton from small impurities and establish optimal parameters, *The Peerian Journal*, 17, pp.57–63 (2023)
42. У.И. Эркабоев, Р.Г. Рахимов, Ж.И. Мирзаев, Н.А. Сайидов, У.М. Негматов, Вычисление осцилляции плотности энергетических состояний в гетеронаноструктурных материалах при наличии продольного и поперечного сильного магнитного поля, Международные конференции “Научные основы использования информационных технологий нового уровня и современные проблемы автоматизации”, pp.341-344 (2022)
43. У.И. Эркабоев, Р.Г. Рахимов, Ж.И. Мирзаев, Н.А. Сайидов, У.М. Негматов, Расчеты температурная зависимость энергетического спектра электронов и дырок в разрешенной зоны квантовой ямы при воздействии поперечного квантующего магнитного поля, Международные конференции “Научные основы использования информационных технологий нового уровня и современные проблемы автоматизации”, pp.344-347 (2022)
44. U.I. Erkaboev, N.A. Sayidov, J.I. Mirzaev, R.G. Rakhimov, Determination of the temperature dependence of the Fermi energy oscillations in nanostructured semiconductor materials in the presence of a quantizing magnetic field, *Euroasian Journal of Semiconductors Science and Engineering*, 3(2), pp.47-52 (2021)
45. U.I. Erkaboev, U.M. Negmatov, J.I. Mirzaev, N.A. Sayidov, R.G. Rakhimov, Modeling the Temperature Dependence of the Density Oscillation of Energy States in Two-dimensional Electronic Gases Under the Impact of a Longitudinal and Transversal Quantum Magnetic Field, *Acta Scientific Applied Physics*, 2(3), pp.12-21 (2022)

JAVASCRIPT VARIABLES

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Annotation: This article provides information about variables in JavaScript. Often, a JavaScript application needs to work with data. Also, a chat application - data can contain users, messages, etc. To store this data, 'variables' are used. A variable is "named storage" for data. We can use variables to store data.

Key words: var, let, const, variable, user, function, block, types, expression, object.

Аннотация: В этой статье содержится информация о переменных в JavaScript. Часто приложению JavaScript необходимо работать с данными. Кроме того, приложение чата — данные могут содержать пользователей, сообщения и т. д. Для хранения этих данных используются «переменные». Переменная является «именованным хранилищем» для данных. Мы можем использовать переменные для хранения данных.

Ключевые слова: var, let, const, переменная, пользователь, функция, блок, типы, выражение, объект.

Annotatsiya: Ushbu maqola JavaScriptdagi o'zgaruvchilar haqida ma'lumot beradi. Ko'pincha JavaScript ilovasi ma'lumotlar bilan ishlashi kerak bo'ladi. Shuningdek u chat ilovasi - ma'lumotlar foydalanuvchilar, xabarlar va boshqalarni o'z ichiga olishi mumkin. Ushbu ma'lumotlarni saqlash uchun o'zgaruvchilar ishlatiladi. O'zgaruvchi ma'lumotlar uchun " nomli xotira " dir. Ma'lumotlarni saqlash uchun o'zgaruvchilardan foydalanishimiz mumkin.

Kalit so'zlar: var, let, const, o'zgaruvchi, foydalanuvchi, funktsiya, blok, tiplar, ifoda, obyekt.

Variables are not typed in JavaScript. After assigning a value of one type to a variable, there is no error and the variable can assume the new type. Because of this, JavaScript is sometimes said to be untyped. But this Java is mistyped and works on "dynamic typing".

To load from a variable, it must first be declared. JavaScript can do this in 3 different ways: using the var, let, or const keywords. Each of these for different reasons.

publish through var

Until ES2015, var was the only way to declare a variable.

```
var a = 0
```

If you forget to include the word `var`, you're assigning a value to an undeclared variable, and the result won't be what you expect. In modern environments or when accelerating strict mode, the above error occurs. In older environments (or if strict mode is disabled), initializes the variable and attaches it to the global object. For more information, initialization is the process of assigning an initial value to a variable.

If you don't initialize a variable when you declare it, it will set undefined as its security and keep it that way until you assign it a new value.

```
var a // typeof a === "undefined"
```

A variable can be declared more than once, provided that the prefix:

```
var a = 1
```

```
var a = 2
```

It is also possible to declare multiple variables in one line:

```
var a = 1, b = 2
```

There is a field of "scope" in programming, which can be translated into Uzbek as the field of view (IMHO). A viewport is a part of a program that can be seen and used independently.

A variable declared outside a function via the `var` field is attached to a global object and has global visibility. Such a variable can be used in the program view. If you declare a control inside a function via `var`, the variable is bound to the function and it only works inside the function, just like a function parameter.

If inside a function, a variable with the same name as a global variable is declared private, the private overrides the global variable.

It's important to note that when you create a block separated by `{ }` brackets, the scope is not created. A view scope is only created when you create a function, because a function view does not have a block view scope, but a `var`.

Help is available throughout the function of a variable declared inside a function. It's even possible to control the declaration at the end of the function after the function, because Java moves all the variables up, instead of compiling the JavaScript code. But to avoid confusion, it is better to declare the variable as a function.

to announce through.

As we said above, `var` block has no scope. `let` was added in ES2015 to solve this problem. The scope of the variable declared by `let` belongs only to the block in which it is declared and to the internal blocks in it.

Modern programmers are mostly moving away from `let` and abandoning `var` altogether.

Another difference is that when you declare a `let` on a function, unlike `var`, it doesn't make the variable a global variable.

Declare via `const`

Variables declared using var or let can improve the manual. A variable declared in const does not change after initialization, making it an immutable value, i.e. a constant.

```
const a = "test"
```

A help literal can be attached to a const. Another aspect: if an object is attached to the constant a, the values of the object can be changed through its functions.

const is a pointer modifier. has a block view area like let speed.

Modern programmers prefer to declare const variables on a per-program basis, as this avoids possible late-encounter errors.

Types

You may have heard that JavaScript is typeless. As I mentioned before, this is completely wrong. JavaScript has typing, and it works in the "dynamic typing" feature. This means you can assign any type to a variable. There are two kinds of types in JavaScript: simple and complex types.

Normal types

Common types include:

- Thigs
- Rows
- Boolean types

There are also two special types:

- null
- undefined

Let's look at each of them separately.

Thigs

There is only one type of number in JavaScript, and that is real numbers.

Numeric literals are written in the program as numbers and can be integer or real number literals depending on how they are written.

Integers

20

546984621654984

0xCC // 16-digit number

Actual numbers:

3.14

.1234

5.2e4

Rows

A string is a sequence of characters. In the program code, it is represented by a string literal and closed with quotation marks - "" or quotation marks ".

```
'series'
```

```
"text"
```


In JavaScript, the `\` character is used to represent strings on multiple lines.

```
"All is one \
series"
```

The `\` character can also be used to use ``` or `'''` between lines. This separates the above characters from line-opening begs.

```
"Uzbekistan"
```

Strings can be concatenated using the `+` operator.

Row template

Added in ES2015, it provides new possibilities for working with strings.

You can create a template by putting an expression between `${}` in the line. For example, without templates:

```
var a = 5
var b = 10
console.log ('The product is ' + (a * b) + '.')
// The product is 50
```

We write the same using the template:

```
var a = 5
var b = 10
console.log ('The product is ${a * b}.')
// The product is 50
```

Boolean type

JavaScript uses the keywords `true` or `false` to represent boolean types. The comparison operators (`===`, `==`, `<`, `>`) return one of the above two as the result.

Control operators like `if`, `while` use logical types in the program process.

A Boolean value determines an expression not only by whether it is exactly true or false, but also by whether it is true or close to false. For example, the value `false` is obtained because all of the following values are close to false:

```
0
-0
NaN
undefined
null
" // an empty string
```

In all other cases, `true` is obtained.

null

`null` is a special value indicating no value.

This value is found in almost all programming languages. For example, in Python it is found as `None`.

undefined

`undefined` means that the variable is not initialized and the value is undefined.

Returns undefined if the function has no return value. Also, if a function parameter exists, but no value is passed to the function when it is called, the function passes the parameters to undefined

The value is checked for undefined as follows:

```
typeof var === 'undefined'
```

Complex types

All types except those listed above are complex types. These are functions, arrays, and objects. Each of them has its own characteristics, and they also possess the properties of the object.

Expressions

The part of the code that creates a new value is called an expression.

There are several types of expressions in JavaScript.

Arithmetic expressions

Expressions used to calculate numbers include:

```
1 / 2
```

```
i++
```

```
i -= 2
```

```
i * 2
```

String expressions

Expressions executed on rows

```
'this' + 'line'
```

```
s += 'row'
```

Primary expressions

This type includes pointers, literals, and constants:

```
6
```

```
2.06
```

```
'this is something'
```

```
true
```

```
this //current object
```

```
undefined
```

```
i
```

Also some keywords

```
function
```

```
class
```

```
function* //function generator
```

```
yield
```

```
yield* //redirects to another generator or iterator
```

```
async function* //asynchronous function expression
```

```
wait
```

```
() //grouping
```

Array and object initialization expressions

```
[] //array literal
```

```
{}
```

```
[1, 2, 3]
```

{a: 1, b: 2}

{a: {b: 1}}

Logical expressions

Boolean expressions create a logical value using operators

a && b

a || b

a

Left-hand expressions

new // creates a new model from the constructor

super // calls the parent constructor

...obj

Property reference expressions

object.property

object[property]

object['property']

Object creation expressions

new object ()

new a (1)

Function definition expressions

Function () {}

Function (a, b) {return a * b}

(a, b) => a * b

a => a * 5

() => {return 5}

Function call expressions

a.x(5)

window.resize()

Referenses:

1. M. Aripov, M. Muhammadiyev. Informatics, information technologies. Textbook. T: TDYuI, 2004.
2. Hoshimov O.O, Tulyaganov M.M. Computer and digital technologies Tashkent new century generation-2009. Page 103.
3. Jeffrey Brandebau.JAVA SCRIPT. "Collection of recipes for professionals". St. Petersburg.2010.
4. SH.A.Nazirov, G.Divald .Fundamentals programming. "Tashkent"-2007
5. M. ARIPOV, S. DOTTOYEV, M. FAYZIYEVA. "Web technologies".T: Publishing House of the National Society of Philosophers of Uzbekistan-2013

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**МОДИФИЦИРОВАННОЕ ЛЕЧЕНИЕ ВТОРИЧНОГО
ХРОНИЧЕСКОГО ПИЕЛОНЕФРИТА У ДЕТЕЙ**

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Целью работы является оценка влияния региональной лимфатической терапии (РЛТ) + канефрона + электрофореза с эуфиллином на некоторые показатели эндогенной интоксикации (ЭИ) и функционального состояния почек (ФСП) при хроническом дисметаболическом пиелонефрите (ХДП). Проведено обследование 70 детей, больных ХДП, в возрасте от 4 до 14 лет. Больные были разделены на 4 группы в зависимости от метода лечения. Сравнительная оценка результатов исследования ФСП и показателей ЭИ показала высокую эффективность комплексного применения РЛТ+канефрон+электрофорез с эуфиллином, который мы назвали «почечным тюбажем».

Ключевые слова: *эндогенная интоксикация, функциональное состояние почек, региональная лимфатическая антибиотикотерапия, канефрон, почечный тюбаж.*

Хронический дисметаболический пиелонефрит (ХДП) сохраняет высокий риск развития хронической болезни почек (ХБП) с формированием хронической почечной недостаточности (ХПН) и снижение качества жизни уже в детском возрасте [3, 4]. В среднем по России распространенность дисметаболической нефропатии (ДМН) составляет около 27-64% всех заболеваний мочевыделительной системы у детей; в практике [педиатрии](#) признаки обменных нарушений в моче встречаются практически у каждого третьего ребенка [1, 2, 6]. В Узбекистане в структуре ДМН наиболее распространённой является оксалатная кристаллурия, на которую приходится 68–71%, 15% составляет уратурия, 9–10 % – фосфатурия и от 5 до 3 % цистинурия [7, 8]. По данным Кузбекова Р.С. (2008) при исследовании 128 пациентов с ХП, наблюдавшихся ими, у 60 (46,9%) заболевание сформировалось на фоне ДМН, у 40 (31,2%) — на фоне нейрогенной дисфункции мочевого пузыря, у 28 (21,9%) — на фоне обструктивных уропатий (пузырно-мочеточниковый рефлюкс, гидронефроз, гипоплазия и аплазия почки, подковообразная почка, поясничная дистопия почки и др.) [5, 9].

Всё сказанное свидетельствует о том, что ХП сформированный на фоне ДМН у детей на сегодняшний день остаётся одной из самых актуальных проблем практического здравоохранения, решение которой имеет не только медицинское, но и социальное значение.

Целью работы является комплексная оценка клинических, биохимических показателей, парциальных функций почек и показателей эндогенной интоксикации при ХДП у детей после применения «почечного тюбажа»

Материалы и методы исследования. Нами обследованы 70 детей в возрасте от 4 до 14 лет. Больные были условно разделены на 4 группы в зависимости от метода лечения. В 1-ю группу вошли 18 больных, которые получали общепринятую терапию (в первые трое суток, обычно ампициллин в/м, после получения результатов бактериологического исследования - антибактериальный препарат в зависимости от чувствительности возбудителя). 2-я группа – из 15 больных, которым антибиотики вводились лимфотропным способом, 3-я – из 17 больных, получавших РЛТ в комплексе с канефроном, а 4-я группа – из 20 больных, которым применяли РЛТ+канефрон в сочетании с электрофорезом с эуфиллином («почечный тюбаж»). Исследования показателей ЭИ и ФСП проводились у всех детей до и после лечения.

Клубочковая фильтрация почек определялась по клиренсу эндогенного креатинина (VanSlayke), креатинин крови и мочи – по суммарному содержанию хромогенов, основанному на реакции ЯФФЕ (Е.Д.Пономарёва с соавт., 1969).

Осмолярность мочи определялась криоскопическим методом на аппарате ОМК-1, Ц-01. Количественное определение оксалатов в моче проводилось по Н.В. Дмитриевой (1966). Расчёт суточной экскреции оксалатов проводился по формуле:

$(\text{Кол-во перманганата калия (KMgO}_4) \times 0,63) - 0,1 \times \text{Д}/2 = \text{мг оксалатов в сутки}$, где: 0,63 – постоянный коэффициент; Д – диурез.

Определение молекул средней массы проводили по методу И.И. Жаденова (2002г.), С-РБ- по методу латексной иммунонефелометрии на анализаторе VN-ProSpec, общий белок крови определяли азотометрическим: классическим методом Кьельдаля (1883) и его модификации; общий альбумин измеряли флуоресцентным методом (Миллер Ю. А., Добрецов Г. Е., 1992). Математическую обработку полученных результатов проводили с использованием компьютерных статистических программ Excel.

Учитывая фармакокинетический эффект комплекса применяемых препаратов: новокаина, который является первой составной частью РЛТ, канефрона и эуфиллина мы назвали «почечный тюбаж».

Новокаин оказывает спазмолитическое действие на гладкую мускулатуру, что способствует улучшению микроциркуляции. Основной эффект канефрона мочегонный, спазмолитический, который способствует выделению оксалатов из почечных лоханок. Эуфиллин расслабляет мышцы, понижает сопротивление кровеносных сосудов и расширяет их, понижает давление в системе почечной артерии, увеличивает почечный кровоток, оказывает диуретическое (мочегонное) действие.

Таким образом, сочетание новокаина введённого региональным лимфотропным методом, канефрона и электрофорез с эуфиллином («почечный тюбаж») увеличивает экскрецию солей из почечной ткани и ускоряет обратное развитие воспалительного процесса путём улучшения микроциркуляции.

III. Результаты

Сравнительная оценка показателей эндогенной интоксикации и функционального состояния почек (ФСП), в зависимости от способа лечения, показала: у детей получавших общепринятую терапию (1-я группа), перед выпиской из стационара уровень СМ, общей концентрации альбумина (ОКА), С-реактивного белка, а также ФСП практически не изменялся ($P_1 > 0,1$). Более положительные сдвиги показателей эндогенной интоксикации у больных мы выявили на фоне использования РЛАТ (2-я группа). Наблюдалось достоверное снижение уровня СМ, С-реактивного белка, повышение ОКА ($P_1 < 0,001$) и достоверное повышение показателей клиренса по эндогенному креатинину ($P_1 < 0,001$), осмолярности мочи ($P_1 < 0,001$). Кроме того, отмечалось увеличение суточного диуреза ($P_1 < 0,001$), по сравнению с аналогичными показателями до лечения. В целом, использование РЛАТ у детей, больных вторичным ХП на фоне ДМН оказывало положительное влияние на показатели ЭИ и ФСП, в большей степени на уровень СМ, С-реактивного белка и клиренса по эндогенному креатинину, но в меньшей степени на уровень оксалурии.

Таблица

Динамика показателей парциальных функций почек у больных с ХДП в зависимости от метода лечения ($X \pm m$)

Показатели	Здоровые дети	До лечения	После лечения			IV группа (n=20)
			I группа (n=18)	II группа (n=15)	III группа (n=17)	
СКФ, мл/мин.м ²	98,6±7,8	68,11±1,16 $P < 0,05$	71,0±2,3 $P_1 > 0,1$	78,8±1,6 $P_1 < 0,001$ $P_2 < 0,001$	85,5±2,8 $P_1 < 0,001$, $P_2 < 0,001$	89,6±2,5 $P_1 < 0,001$ $P_2 < 0,001$
Осмолярность мочи, ммоль/л	1000±200	623,46±21,0 $P < 0,001$	680,8±40,2 $P_1 > 0,1$	813±23,8 $P_1 < 0,001$ $P_2 < 0,001$	975,6±37,6 $P_1 < 0,001$, $P_2 < 0,001$	983,3±36 $P_1 < 0,001$, $P_2 < 0,001$
Суточный диурез, л/сут.	1,7±0,036	1,02±0,028 $P < 0,001$	1,03±0,05 $P_1 > 0,1$	1,41±0,05 $P_1 < 0,001$, $P_2 < 0,01$	1,4±0,027 $P_1 < 0,001$, $P_2 < 0,01$	1,6±0,025 $P_1 < 0,001$, $P_2 < 0,001$

Оксалурия, мг/сут.	25±2,4	43,8±2,6 P<0,001	33,3±3,8 P ₁ >0,1	29,09±1,06 P ₁ <0,001 P ₂ >0,1	27,3±0,5 P ₁ <0,001, P ₂ <0,05	25,3±0,8 P ₁ <0,001, P ₂ <0,001
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Примечание: P– достоверность различия между показателями здоровых и у детей с хроническим пиелонефритом. P₁– достоверность различия между показателями до и после лечения. P₂– достоверность различия между традиционной терапией и группой детей, получавших РЛАТ.

Больные 3-й группы получали канефрон помимо РЛАТ. Мы наблюдали положительную динамику всех изучаемых показателей ЭИ, но в меньшей степени ФСП в этой группе. Так, показатели ЭИ достоверно улучшились по отношению к соответствующим показателям до лечения и к показателям после общепринятого лечения (P₁<0,001, P₂<0,001). В данной группе нами было также выявлена положительная динамика показателей ФСП (P₂<0,001), которые улучшились по отношению к соответствующим показателям 2-й группы после комплексного лечения.

У больных 4-й группы получавших канефрон и электрофорез с эуфиллином помимо РЛАТ мы наблюдали положительную динамику всех изучаемых показателей как ЭИ, так и ФСП в этой группе. Так, показатели СМ, ОКА и С-реактивного белка не только достоверно улучшились по отношению к соответствующим показателям до лечения и к показателям после общепринятого лечения (P₁<0,001, P₂<0,001), но и достигли уровня здоровых детей (P>0,1). В данной группе нами было также выявлено значительное улучшение всех показателей ФСП (P₁<0,001, P₂<0,01) и оксалурии (P₁<0,001, P₂<0,01), которые также приблизились к нормативам после применения «почечного тюбажа» (P>0,1).

Всё это позволяет предполагать высокую эффективность предложенных методов терапии при вторичном ХП у детей (РЛАТ + канефрон и РЛАТ + канефрон + электрофорез с эуфиллином) в отношении показателей ЭИ и ФСП.

IV. ВЫВОДЫ

1. При ХДП нарушается функциональное состояние почек, что требует изыскания новых подходов к лечению, направленных на уменьшение воздействия антибиотикотерапии на функции почек и с обязательным использованием канефрона.

2. В периоде обострения ХДП значительное снижение общего альбумина плазмы крови и повышение уровня СМ и С-РБ в плазме крови. Полученные результаты доказывают диагностическую значимость исследованных показателей ЭИ, что позволяет рекомендовать их, в том числе, и для оценки процедур детоксикации.

3. РЛАТ является высокоэффективным методом терапии ХДП, оказывает позитивное влияние на основные показатели функции почек и эндогенной интоксикации: СКФ, осмолярность мочи, уровень СМ, общий альбумин и С-РБ.

4. Применение канефрона в комплексе с РЛАТ при ХДП приводит к восстановлению показателей ЭИ и к относительному улучшению показателей ФСП.

5. Применение канефрона + электрофореза с эуфиллином в комплексе с РЛАТ при ХДП является наиболее приемлемым методом терапии. Этот метод приводит к восстановлению показателей суточного диуреза, снижению оксалурии, оказывает положительное влияние на состояние СКФ, осмолярность мочи и показатели эндогенной интоксикации: уровень СМ, общий альбумин и С-РБ.

Библиографический список

1. Баранов А.А. Достижения и перспективы развития нефрологии детского возраста. // Вопросы современной педиатрии. 2007. - №6. - С. 20-24.

2. Баранов А.А. Оценка состояния здоровья детей. Новые подходы к профилактической и оздоровительной работе в образовательных учреждениях. М.:ГЭОТАР-Медиа, 2008.- 432 с.

3. Вялкова А.А. Современные представления о тубулоинтерстициальных нефропатиях и концепция хронической болезни почек в педиатрической нефрологии. // Педиатрия. 2008. - Т. 87, №3. - С. 129-131.

4. Гендлин Г.Е. Ультразвуковое исследование почек: возможности и границы метода. // Клиническая нефрология. — 2009. №2. -С. 17-25.

5. Голев Г.Д. Формирование регистра пациентов с додиализной стадией ХПН: первая оценка результатов // Нефрология и диализ. — 2009. — Т. 11, № 4.-С. 370-371.

6. Длин В.В. Дисметаболическая нефропатия, мочекаменная болезнь и нефрокальциноз у детей. -М.: Оверлей, 2005: 232 с.

7. Зайкова Н.М. Факторы риска и патогенетические механизмы формирования и прогрессирования рефлюкс-нефропатии у детей. //Рос.вестн. перинатол. и педиатр. 2008. - №1. — С. 63-69.

8. Кузнецова Е.Г. Показатели макро- и микроэлементного состояния у детей с хроническим пиелонефритом и дисметаболической нефропатией. //Автореф. дис. канд. мед.наук. — Иваново, 2007. 22 с.

АНЕМИЯ И БИОХИМИЧЕСКИЕ ПОКАЗАТЕЛИ ПРИ ХРОНИЧЕСКОЙ БОЛЕЗНИ ПОЧЕК У ДЕТЕЙ

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Цель работы: оценка влияния анемии на течение хронической болезни почек у детей, выявление зависимости между уровнем гемоглобина, эндокринной и выделительной функцией почек. Все дети разделены на две группы по уровню гемоглобина на момент поступления в стационар: 1 группа - дети с уровнем гемоглобина < 110 г/л, 2 группа - дети с уровнем гемоглобина ≥ 110 г/л. Всем детям были проведены общие анализы крови и мочи, а также анализ кала на яйца гельминтов. С целью выявления влияния анемии на скорость прогрессирования анемии мы отобрали группу из 65 человек, которым за время проведения нашего исследования СКФ определялась 2 и более раз. Из них у 27 детей хотя бы однократно регистрировалась анемия, а у оставшихся 38 детей уровень гемоглобина соответствовал возрастной норме. Нефрогенная анемия чаще развивается у детей с более активно текущим патологическим процессом в почках, приводящим к деформации чашечно-лоханочной системы, выявленной по результатам экскреторной урографии. Нефрогенная анемия связана в большей степени с клиническими и лабораторными изменениями, характерными для ХБП, а ее зависимость от снижения выделительной функции почек проявляется только на поздних стадиях болезни.

Ключевые слова: нефрогенная анемия, клиренс эндогенного креатинина, хроническая болезнь почек, канефрон.

За последние годы произошло накопление существенного количества исследований, указывающих на анемию, как на независимый фактор риска прогрессирования ХБП и развития терминальной стадии [1, 2, 4, 7], эпидемиологические исследования показывают корреляцию между уровнем гемоглобина и клиренсом эндогенного креатинина [3, 5]. Анемия является суррогатным маркером тканевой гипоксии, которая усиливает существующее поражение почечной ткани. Под действием тканевой гипоксии, в том числе и связанной с анемией, активизируется эпителиально - мезенхимальная трансформация клеток канальцев и высвобождение провоспалительных цитокинов и молекул фиброобразования, усиливающих прогрессирование фиброза и, соответственно, приводящих к снижению выделительной функции почек [6, 8, 9].

Частота анемии при ХБП по данным литературы различна и в среднем составляет

25 - 35%. Мнение о формировании анемии на терминальной стадии ХБП на данный момент является не состоятельным. Существуют исследования, показывающие, что еще на додиализной стадии ХБП многие пациенты имеют анемию [10, 11]. Частота нефрогенной анемии у детей составляет от 18,5% при II стадии ХБП до 68% на V стадии [4].

Цель исследования: оценить влияние анемии на течение хронической болезни почек у детей, выявить зависимость между уровнем гемоглобина, эндокринной и выделительной функцией почек.

Для реализации поставленной цели исследования были определены следующие задачи:

1. Выявить возможное влияние анемии на скорость прогрессирования патологического процесса в почках.
2. Выявить возможные факторы риска развития анемии в прогрессии хронической болезни почек.
3. Оценить состояние эндокринной функции почек у детей с анемией и у детей из группы сравнения - с анемией не ренальной этиологии. Выявить возможные зависимости между состоянием эндокринной и экзокринной функции.

Материалы и методы исследования. Всем детям были проведены общие анализы крови и мочи, а также анализ кала на яйца гельминтов. Для уточнения характера лейкоцитурии и гематурии проведен анализ по Нечипоренко. Определена суточная экскреция белка при протеинурии в общем анализе мочи. Детям также были проведены пробы мочи по Зимницкому с целью определения функции почечных канальцев. Для исключения метаболических нарушений определена суточная экскреция оксалатов и уратов. Детям с хроническим пиелонефритом проводился посев мочи с определением чувствительности флоры к антибиотикам (забор мочи катетером), эндогенного креатинина (проба Реберга).

Для решения поставленных перед нашим исследованием задач все дети разделены на две группы по уровню гемоглобина на момент поступления в стационар: 1 группа - дети с уровнем гемоглобина < 110 г/л, 2 группа - дети с уровнем гемоглобина ≥ 110 г/л. По рекомендациям NICE, 2003 нефрогенной анемией принято считать снижение гемоглобина менее 110 г/л при наличии установленной ХБП у взрослых и детей старше двух лет и менее 100 г/л у детей младше двух лет [163]. Детей младше 2 лет в нашей выборке не было. Таким образом, критический уровень гемоглобина - 110 г/л. В первую группу вошел 51 ребенок, а во 2 группу - 377 детей.

Результаты исследования.

Повышение уровня креатинина и мочевины отмечалось в небольшом проценте случаев, причем частота повышения уровня креатинина в группах сравнения была практически одинаковой: $3,0 \pm 1,5\%$ в I группе и $3,8 \pm 0,8\%$ во II группе. Уровень мочевины был повышен в группе детей с анемией более чем в 2

раза чаще, чем в группе без анемии: $4,4 \pm 1,8\%$ в I группе и $1,5 \pm 0,5\%$ во II группе. Исследование скорости клубочковой фильтрации и канальцевой реабсорбции в пробе Реберга было проведено 65 пациентам I группы и 262 II группы.

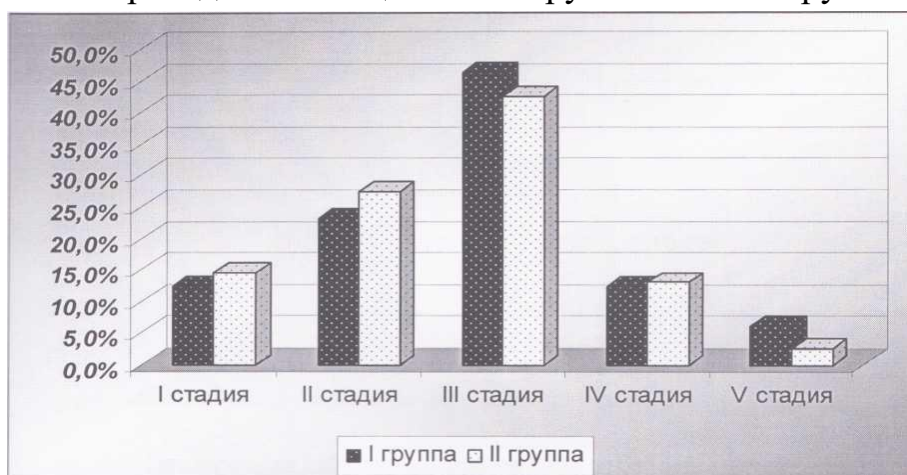


Рис. Частота различных стадий ХБП в группах сравнения.

Из них нарушение выделительной функции почек выявлено в группах сравнения практически с одинаковой частотой: $87,7 \pm 4,1\%$ в I группе и $85,5 \pm 2,2\%$ во II группе. Преобладающей в обеих группах является III стадия болезни: $46,2 \pm 6,2\%$ и $42,4 \pm 3,1\%$ соответственно.

Обращает на себя внимание меньшая частота ранних стадий болезни (I- II) в I группе за счет увеличения доли более тяжелой ХБП. Например частота V стадии болезни в I группе более чем в 2 раза больше, чем во II группе: $6,2 \pm 3,0\%$ и $2,7 \pm 1,0\%$ соответственно.

Стадии болезни классифицировались в соответствии с рекомендациями K/DOQI по СКФ: I стадия - СКФ 90 и более мл/мин/1,73м², II - СКФ 89-60 мл/мин/1,73м², III - СКФ 59-30 мл/мин/1,73м², IV - СКФ 29-15 мл/мин/1,73м², V - СКФ 15 и менее мл/мин/1,73 м². СКФ в нашем исследовании определялась классическим методом - по клиренсу эндогенного креатинина (пробе Реберга) (рисунок).

С целью выявления влияния анемии на скорость прогрессирования анемии мы отобрали группу из 65 человек, которым за время проведения нашего исследования СКФ определялась 2 и более раз. Из них у 27 детей хотя бы однократно регистрировалась анемия, а у оставшихся 38 детей уровень гемоглобина соответствовал возрастной норме. За время проведения исследования у $50,8 \pm 6,2\%$ детей произошло снижение СКФ, у $10,8 \pm 3,8\%$ СКФ не изменилась, а у $38,5 \pm 6,0\%$ произошло некоторое увеличение СКФ.

Если рассматривать прогрессирование ХБП по стадиям в соответствии с классификацией, то увеличение на 1 и более стадию произошло у $48,1 \pm 9,6\%$ детей с анемией и только у $39,5 \pm 7,9\%$ детей без анемии. Объем выборки не позволил получить статистически достоверные данные, однако явно видна

тенденция к более быстрому прогрессированию болезни на фоне анемии.

Таким образом, нефрогенная анемия чаще развивается у детей с более активно текущим патологическим процессом в почках, приводящим к деформации чашечно-лоханочной системы, выявленной по результатам экскреторной урографии. Нефрогенная анемия связана в большей степени с клиническими и лабораторными изменениями, характерными для ХБП, а ее зависимость от снижения выделительной функции почек проявляется только на поздних стадиях болезни. Необходим пересмотр формального подхода к нефрогенной анемии, как осложнения терминальной стадии болезни.

Для детей с ХБП на фоне анемии характерна большая частота сопутствующей патологии, особенно, гинекологической патологии и гепатобилиарной системы.

Выводы

1. Нефрогенная анемия возникает уже на ранних стадиях ХБП, ее частота увеличивается с повышением стадии болезни и достигает наибольшей ожидаемо на V стадии болезни.

2. Нефрогенная анемия имеет сильную ассоциацию с лабораторными изменениями, характерными для ХБП: изменениями в общем анализе мочи, в анализе по Нечипоренко нарушением белкового и липидного обмена.

Литература

1. Баранов А.А. Достижения и перспективы развития нефрологии детского возраста // Вопросы современной педиатрии. 2007. - №6. - С. 20-24.

2. Баранов А.А. Оценка состояния здоровья детей. Новые подходы к профилактической и оздоровительной работе в образовательных учреждениях. М.: ГЭОТАР - Медиа, 2008.- 432 с.

3. Баранов А.А. Детская инвалидность в России //Актуальные проблемы педиатрии: сб. материалов XIV Конгресса педиатров России с международным участием. — М., 2010. - С. 63.

4. Вялкова А.А. Современные представления о тубулоинтерстициальных нефропатиях и концепция хронической болезни почек в педиатрической нефрологии // Педиатрия. 2008. - Т. 87, №3. - С. 129-131.

5. Гендлин Г.Е. Ультразвуковое исследование почек: возможности и границы метода. // Клиническая нефрология. — 2009. №2. -С. 17-25.

6. Голев Г.Д. Формирование регистра пациентов с додиализной стадией ХПН: первая оценка результатов. // Нефрология и диализ. — 2009. — Т. 11, № 4.-С. 370-371.

7. Длин В.В. Дисметаболическая нефропатия, мочекаменная болезнь и нефрокальциноз у детей. -М.: Оверлей, 2005: 232 с.

8. Зайкова Н.М. Факторы риска и патогенетические механизмы формирования и прогрессирования рефлюкс-нефропатии у детей. //Рос. вестн. перинатол. и педиатр. 2008. - №1. — С. 63-69.

9. Кузбеков Р.С. Комплексное медико-социальное исследование заболеваемости населения болезнями мочеполовой системы и мероприятия по их профилактике. //Автореф. дис. канд. мед. наук. М., 2008. — 24 с.

10. Кузнецова Е.Г. Показатели макро- и микроэлементного состояния у детей с хроническим пиелонефритом и дизметаболической нефропатией. //Автореф. дис. канд. мед. наук. — Иваново, 2007. 22 с.

11. Thomas, M.C. The burden of anaemia in type 2 diabetes and the role of nephropathy: a cross-sectional audit [Text]/ M. C. Thomas, R. J. MacIsaac, C. Tsalamandris, L. Molyneaux, I. Goubina, G. Fulcher, D. Yue, G. Jerums // Nephrol Dial Transplant. -2004. -19. -1792-1797.

**EFFECTIVE METHODS OF CLINICAL AND LABORATORY DIAGNOSIS
AND TREATMENT OF HOOF DISEASES IN LARGE ANIMALS**

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Abstract: In this article and the results of scientific practical experiments conducted in order to develop clinical-laboratory diagnostics for early detection of hoof diseases in cattle and to determine effective methods for treatment and prevention of diseases in order to increase the quantity and quality of meat and milk products given by animals in veterinary practice are presented.

Key words: hoof, antibiotic, symptom, syndrome, diet, microbe, necrobacteriosis, invasive, f usobacterum necrophorum .

Enter. The results of the conducted researches are aimed at increasing productivity, improving the quality and quantity of meat and milk after the treatment of necrobacteriosis in livestock.

Using the recommended methods, it is possible to study and determine the clinical condition of livestock after treatment, the morphological composition of blood, the amount of some indicators of biochemical composition. This method is characterized by low invasiveness and the absence of negative changes in the life of the organism, including the recovery of the organism from the disease.

From the obtained information, experimental studies related to the training of veterinary specialists with higher and secondary specialized education, training of teachers of higher educational institutions, practicing veterinarians, clinical practice and solving other scientific problems are used in the educational process. can be used for transfer.

With the help of the surgical practice recommended in the treatment of necrobacteriosis diseases of livestock, it is possible to carry out surgical intervention with minimal damage to the hoof and toe joints, as well as soft tissues, blood vessels and nerves, thus accelerating the regenerative processes.

Relevance and necessity of the topic: Currently, providing the population with quality livestock products is one of the urgent problems. The population's demand for meat and milk is growing year by year, as a result, increasing the quality and quantity of meat and milk products from livestock remains an urgent task. In veterinary practice, in order to increase the quantity and quality of the meat and milk products given by animals, the practice of research is being carried out on a large scale. The development

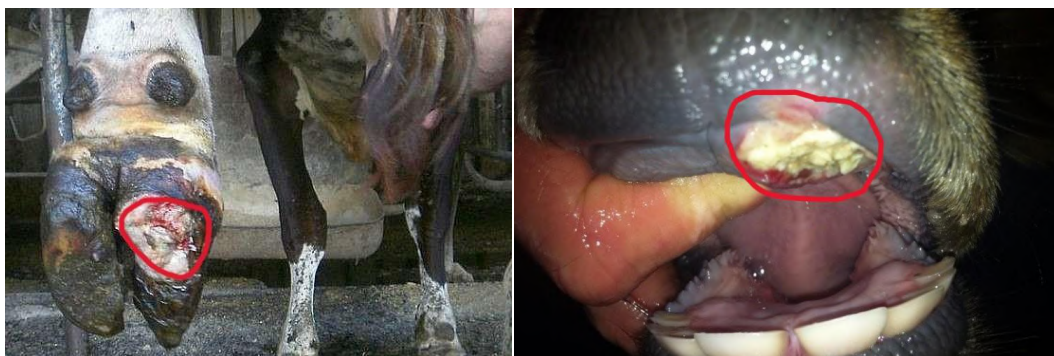
of methods of treatment against necrobacteriosis that do not have a negative effect on the animal's organism and are economically affordable are considered urgent at the present time. It is necessary to develop inexpensive and high-quality methods of necrobacteriosis.

The purpose and tasks of the work: The purpose of the research is to develop and implement effective, low-cost surgical methods of treatment of highly contagious necrobacteriosis, which is widespread among livestock, and does not have a negative impact on animal health.

To achieve the goal, the following tasks were set:

- study of anatomic topography of hoof structure of large horned animals;
- in-depth study of the biology of the causative agent of necrobacteriosis :
- study of changes in the clinical condition of the recommended treatment method in comparison with traditional treatment methods;
- to determine the effect of the recommended method on the morphological composition of the blood of experimental animals, some biochemical parameters;
- to determine the economic effectiveness of treatment of experimental animals using the recommended method compared to traditional methods.
- to test the recommended method in clinical practice in the treatment of necrobacteriosis of large horned animals.
- checking the quality and quantity of meat and milk yield of the treated animals.

Literature information. Pathomorphology of the disease: In cattle, sheep and horses, the foci of necrosis are mainly located in the lower part of the legs and hooves. When necrotic areas are cut, a mass of greenish-gray, brown purulent dead tissue is visible, in some cases they are cheesy . [1]



Picture 1: Changes in the hooves and oral cavity during necrobacteriosis in large horned animals .

The process of necrosis may have spread from the skin to the muscles, tendons and ligaments, and even to the bone. In this case, the bone becomes a loose , rapidly decaying gray mass. Cachexia is observed in carcasses of animals in which the necrotic process is located on the mucous membranes of the mouth . Necrotic foci are visible in

the throat, larynx, tongue, gums, and palate. In some cases, the necrotic process is observed in the form of a pus-fibrinous mass in the diaphragm , and in the case of foci of necrosis in the lungs, as well as the merging of this organ with the chest cavity. The back of the throat and bronchial lymph nodes are enlarged and filled with blood. Foci of necrosis are also detected in large, net and solid abdomens. If the necrotic process develops in the genitals, pathological anatomical changes are observed in this place. The necrotic mass is soft, cheesy. Sometimes diffuse necrotic changes are noticeable. [2,3,4]

Results of the research: Our scientific research works are located in the farm " Oz Nasl Elita" in the Qibray district of Tashkent region , in the "OOO Nasriddin Agro Biznes" dairy farm in the Orta Chirchik district, and in the Ohangaron district. "Best Metal" was held at the paddy farms.

During the research period, animals infected with necrobacteriosis disease were divided into 2 groups of 10 animals in each farm.

In this case, group 1 was called the experimental group and group 2 was called the control group, and 10 diseased animals were separated from each group.

Clinical, pathomorphological, hematological and dispensary methods were widely used during the research.

Results of the study of the seasonality of necrobacteriosis in cattle in the conditions of experimental farms

Table 1

T\r	Moon	Number of recorded animals, head	Incidence rate, %
1	January	115	12.1%
2	February	110	11.5%
3	March	103	10.8%
4	April	85	8.9%
5	May	65	6.8%
6	June	62	6.5%
7	July	50	5.2%
8	August	55	5.7%
9	September	68	7.1%
10	October	72	7.5%
11	November	80	8.4%
12	December	85	8.9%
	Total	950	99.4

Table 1 shows the results of the study of the seasonality of necrobacteriosis in cattle in farm conditions, and it was observed that the maximum level of morbidity is recorded in December-April. As a result of the warming of the weather, the decrease in relative humidity and, of course, the enrichment of the animal diet with blue mass in the spring and summer months

a decrease in the incidence of necrobacteriosis was observed: 6.5% in June, 5.2% in July and 5.7% in August. With the decrease in air temperature, the incidence rate of necrobacteriosis was observed to increase again . In these months, the number of cows infected with necrobacteriosis was 2.3 times higher than in the summer months.

Prevalence of hoof diseases in animals in farm settings where research was conducted

Table 2

T\r	Name of the farm	Checked number of animals	Known hoof diseases					Percentage of necrobacteriosis disease in the farm %
			Crown of phlegmonas , %	Erosion	Laminitis	Aseptic pododermatitis	Necrobacteriosis	
1	"Own Generation Elite"	85	5	0	8	12	65	76
2	"OOO Nasriddin Agro Business"	132	2	6	4	20	100	75.7
3	"Best Metal"	185	4	10	6	20	145	78.3

In Table 2, as a result of inspections, indicators of hoof diseases in farms are highlighted.

It can be seen that necrobacteriosis is the most common disease. Because there are many factors that cause the disease, it is the fact that farms do not meet animal husbandry requirements, the sugar-protein ratio in the feed is not at the required level, and the vaccination work is carried out with poor quality .

As a result of the inspections, it was found that the necrobacteriosis disease was 76% at the "Oz Nasl Elita" farm , 75.7 % at the "OOO Nasriddin Agro Biznes" farm, and 78.3% at the "Best Metal" farm. is organizing



Picture 2: placing a diaper on a healthy nail and applying novocaine + antibiotic to the fingertip

A total of 30 head animals in the experimental group were treated with the following treatment scheme for necrobacteriosis:

1. primary surgical treatment was carried out in the form of a bath, in which: a solution with a special composition was used; 1 gram of 2.5% creolin, 10 grams of 5% iodine, and 5 tablets of furacilin were mixed into 0.5 liters of warm water close to the animal's body temperature solution was prepared. This process was carried out for 5-10 minutes on the first 1st day of the disease and on the 3rd day.

2. of special hoof cutters and hoof knives, the hoof is penetrated to the center of the wound and the existing pus and dead tissues are removed and the hoof is shaped.

3. Novocain + antibiotic blockade is carried out, in which 0.5% 10 ml of novocaine, 2 ml of dexamethasone and 1 million doses of bicilin-5 antibiotic were mixed to form a suspension and injected into the finger joint on the 1st and 3rd days of the disease.

4. Limoxin, gentam or ceftiosan drugs were administered intramuscularly to the sick animal for 3-5 days depending on the level of disease.

5. Oxytetracycline 99% powder and raniod powder are mixed in the same proportion and sprinkled on the injured hoof, and a special soft surgical bandage is applied. In the first 2 days of the disease.

6. Tissue therapy (autohemotherapy) was used to treat the disease.

7. healthy hoof prevents pressure on the diseased hoof and effectively helps to keep the wound clean and restore healthy tissue.

, 83.4 % of animals in the experimental group recovered without complications, and 16.6% of animals recovered with partial complications.

Clinical, hematological and pathomorphological examination of experimental animals the results of checking indicators During the experiments,

clinical examinations, hematological and pathomorphological examinations were carried out in order to determine the necrobacteriosis disease and treat the diseased animals.

During the diagnosis of necrobacteriosis, the dysfunction of the distal part was detected during the clinical examination of the legs of the animals. In addition, when checking the composition of the feed, it was found that the ratio of sugar - protein and the ratio of coarse - concentrate feed were unbalanced, and it was proved that these indicators create a basis for the development of necrobacteriosis and other hoof diseases.

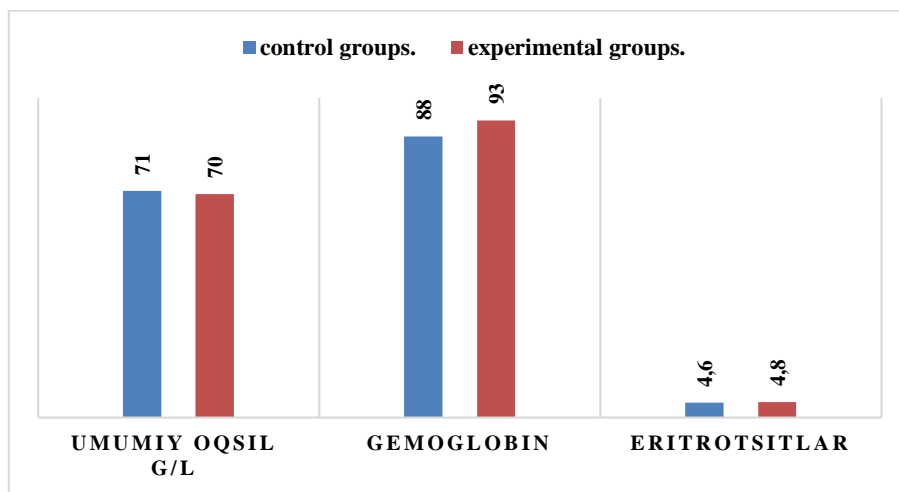
The conducted ration analysis revealed that the ratio of sugar and protein in the total of nutrients is 4.5-5 times less than the recommended average norm. In order to study the effect of different rations on rumen pH acidity index, the rumen pH level of cows was checked every week with the help of a food probe for two months. As a result, the sugar-protein ratio is large and the level of stomach acidity is high

As a result, it was found that it affects the productivity of cows. A total of 60 animals were studied on three farms to investigate the effects of ruminal acidosis and subacidosis on hoof health in cattle. First, the ratio of sugar and protein in the diet of cows and the pH index of the rumen were studied, and it was tested that these parameters are the etiological factors of the origin of hoof diseases, especially necrobacteriosis.

As a result of the examination of animals infected with necrobacteriosis, the following pathomorphological changes were observed, including the discharge of gray pus from the necrotic hoof plate, the formation of swelling in the throat lymph node, the presence of necrotic wounds in the lungs, the accumulation of pus in the pleura, and the appearance of severe coheses in the animal. determined as a result.

The hematological parameters of experimental animals were evaluated using generally accepted methods.

the experimental and control groups during the disease and during recovery from the disease, hematological examinations were carried out during the experimental period.



Hematological indicators of animals in the experimental and control groups.

CONCLUSIONS

42.3 % of high-yielding cows and bulls in the farms where the experiments were conducted . Out of a total of 402 lame animals, 310 were infected with necrobacteriosis , and the prevalence of the disease was 77%.

It was found that diseases of the distal parts of the legs among high-yielding bighorns were distributed as follows: necrobacteriosis was 77%, crown phlegmon was 2.7%, erosion was 3.9%, laminitis was 4.4%, and aseptic pododermatitis was 12.9%.

than mastitis and reproductive organs pathology in cattle farms . It was found that especially Holstein-Friesian cows are more prone to hoof problems, which causes significant economic damage in dairy farms in our country.

Necrobacteriosis has a seasonal character , and a high incidence rate was observed in the winter months. In these months, the number of infected cows was 2.3 times more than in summer months.

The imbalance of the sugar-protein ratio in the diet of productive cows and the increase of acidity in the large rumen fluid showed a direct correlation in being etiological factors in the origin of hoof diseases. Such a connection was also found in the recording of necrobacteriosis. As a result of research conducted in cattle farms, it was found that the percentage of cows infected with necrobacteriosis in different rations is from 8.33 % to 22.22%.

In the experiments, a differential diagnosis system for effective timely treatment of necrobacteriosis of the distal part of the leg was developed and successfully tested on farms.

Effective drugs against *F.necrophorum* causative agent, limoxin, gentam or ceftiosan, 1 ml of 30 kg of live animals, were used intramuscularly for 3-5 days depending on the degree of the disease, reducing the treatment time by 99.3%.

In the prevention of necrobacteriosis, the composition and method of application of hoof baths, which are economical from the economic side and have an effective

effect on necrobacteriosis, were developed and comparative tests were conducted. Composition: 1 gram of 2.5% creolin, 10 grams of 5% iodine, 5 tablets of furacilin per 0.5 liters of water at a temperature close to the body temperature of the animal . was determined.

References:

1. ХУДОЁРОВА ФЕРУЗА АБДУСАТТОРОВНА ЮҚОРИ МАҲСУЛДОР ҚОРАМОЛЛАР НЕКРОБАКТЕРИОЗИ ЭТИОЛОГИК ОМИЛЛАРИ, ДАВОЛАШ ВА ОЛДИНИ ОЛИШ 16.00.03 – Ветеринария микробиологияси, вирусологияси, эпизоотологияси, микологияси, микотоксикологияси ва иммунологияси ВЕТЕРИНАРИЯ ФАНЛАРИ БЎЙИЧА ФАЛСАФА ДОКТОРИ (PhD) ДИССЕРТАЦИЯСИ АВТОРЕФЕРАТИ Самарқанд-2021
2. Х. С. САЛИМОВ, А. А. ҚАМБАРОВ ЭПИЗОТОЛОГИЯ Дарслик САМАРҚАНД – 2016 200-209 bet.
3. Lischer, C.J. The effect of biotin in the treatment of uncomplicated claw lesions with exposed corium in dairy cows. Part II: The healling process in supplemented animals / C Lischer, A. Hunkeler, H. Geyer et al. // Proc 9- th Int. Symp. Disorders Ruminant Digit Int. Conf. Lameness Cattle. - Rehovot. - 1996. - P. 31.
4. Manske, T. Topical treatment of digital dermatitis associated with severe heel-horn erosion in a Swedish dairy herd / T. Manske, J. Hultgren // Preventive Vet. Med. - 2002. - Vol. 53. - N. 3. - P. 215-231.
5. Эшбуриев, С. Б., Нарбаев, К., & Костомахин, Н. М. (2017). Групповая профилактика нарушения витаминно-минерального обмена у высокопродуктивных коров. *Главный зоотехник*, (11), 3-8.
6. Норбаев, К. Н., Даминов, А. С., & Эшбуриев, С. Б. (2019). Этиопатогенез вторичной остеодистрофии у коров.
7. Bakhtiyorovich, E. S., & SaifiddinJakhongirUgli, K. (2023). DIAGNOSIS OF PROTEIN METABOLISM DISORDERS IN FISH. *American Journal Of Agriculture And Horticulture Innovations*, 3(05), 04-12.
8. Eshburiyev, S., Kasimov, S., Badirova, K., & Shomurodov, M. (2021). ПРОФИЛАКТИКА НАРУШЕНИЯ БЕЛКОВОГО ОБМЕНА У РЫБ. *Вестник ветеринарии и животноводства (ssuv. uz)*, 1(1).
9. Asqarxujayev S., Kasimov S., Khurramova D. The importance of training consultation in horses //ACADEMICIA: An International Multidisciplinary Research Journal. – 2021. – Т. 11. – №. 10. – С. 1757-1761.
10. Bakhtiyorovich E. S., Saifiddin K. Effectiveness of Innoprovit Probiotic in Preventing Protein Metabolism Diseases in Fish //Best Journal of Innovation in Science, Research and Development. – 2024. – Т. 3. – №. 1. – С. 190-195.
11. Sayfiddin K., Nigorakhan B. CAUSES OF HYPOVITAMINOSIS IN FISH //International Multidisciplinary Journal for Research & Development. – 2023. – Т. 10. – №. 12.
12. Sayfiddin K. et al. TO THE GROWTH AND DEVELOPMENT OF FISH EFFECTS OF THE WATER ENVIRONMENT //Spectrum Journal of Innovation, Reforms and Development. – 2022. – Т. 3. – С. 48-51.

THE PRACTICE OF APPLYING INCLUSIVE ECONOMIC THEORY FOR ECONOMIC DEVELOPMENT AND POVERTY REDUCTION

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ABSTRACT

This article develops various methods for resolving economic crises and financial difficulties in the countries of the world. Nevertheless, the analysis shows that the most important way to save the region from poverty is to introduce inclusive economic institutions. Economically inclusive institutions create inclusive markets that not only allow people to pursue careers that best suit their skills, but also create a level playing field for everyone to pursue their careers. When owners can start their own businesses, workers can work more efficiently, less profitable businesses are replaced by competitive ones.

Keywords: companies, inclusive economy, competitiveness,

INTRODUCTION

Today it is no secret that countries lagging behind in economic development offer various economic opportunities to restore the economic situation. Nevertheless, we can say that these relief measures have actually reduced unemployment and poverty rates. The numerous local relief measures alone are not enough to achieve economic stability. Because we all know that it is impossible to achieve economic stability without carrying out the task of improving economic forecasts year after year, creating jobs and at the same time dealing with the problem of price levels.

LITERATURE ANALYSIS AND METHODOLOGY

If we fully examine life in countries with a stable economy, we will be able to see that in most of them there is an institution of inclusive economics. An inclusive market does not just mean free markets. Looking back, there was a market in Barbados in the 17th century. At the same time, however, property rights on the island were available to only a handful of zamindars, not all, and the colony's markets were far from inclusive. The slave trade was one of the institutions that systematically coerced the majority of the population and deprived them of the opportunity to choose their desired profession and their own abilities. Sustainable economic growth is almost always accompanied by technological changes that increase the efficiency of human labor, land and available capital. If we remember our ancestors who lived only a century ago, they did not have technologies such as water pipes, cooling systems and electricity, not to mention information technologies, robots and computer-based devices. It's hard to imagine that in the past most people struggled just to survive. In such a situation in the regions of Western Europe, history testifies that the great scientists who made these

discoveries earned billions of dollars and donated new technologies to society. The reason for the low economic performance of most poor countries is the low level of education, economic institutions that do not encourage parents to educate their children, and the inability of the government to build schools, finance them, and support the dreams of parents and students. The no support policy is one of the biggest mistakes. In addition, there were many cases of poor education in the country, as well as the involvement of young people in forced labor. This leads to their inability to mobilize their own talents. In such underdeveloped countries, most people are deprived of the right to pursue their potential profession. Economic institutions that harness the potential of inclusive markets, promote technological innovation, invest in people, and mobilize the talents and skills of large numbers of people are critical to economic growth.

DISCUSSION

Due to differences in institutions, institutions, regulations that affect economic performance, and incentives that encourage people to work, economic development also differs between countries. Comparing teenagers in North and South Korea, what can we expect from their lives? People in the North grow up in poor or skilled jobs where the initiative and creativity typical of entrepreneurs are lacking. Most of the knowledge they are taught in school consists of open propaganda aimed at strengthening the legitimacy of the existing system. They don't even have modern technology, let alone computers. After graduating from school, you are required to do military service for a period of ten years. Furthermore, North Korean teenagers know that markets where they can use their knowledge and use their savings to buy things they need or want are not allowed by law. They may not even be sure what rights they will have in the future. South Koreans, on the other hand, receive good education from a young age and are encouraged to work hard and excel in their chosen career. South Korea's economy is based on market relations based on private property. Young people in this region have the right to enjoy the fruits of their labor and dedication if they succeed as entrepreneurs or workers - to improve their living conditions, to get a car and to freely use medical services. For this reason, the economy of South Korea, like other countries in the world, belongs to the developed countries. Most immigrants in the world travel there regularly to find work. Analyzes around the world show that every year more than ten thousand unemployed people find suitable jobs and receive high salaries. It's no secret that these indicators are increasing every year. The focus is on strengthening the state's provision of quality education and comprehensive opportunities to reduce unemployment and poverty. In addition, the representatives of the region have set the goal of reducing the human factor through comprehensive use of the digital economy, bypassing the human factor. The fact that brands with a high position in the world's most developed market economy have located their small businesses in South Korea is a sign of the development of the economy in this country.

CONCLUSION

When solving the above problem, we should consider that political and economic institutions are expected to be the final decision of society in an inclusive manner and lead to economic development. Or they can be extractive and hinder economic growth. Where extractive economic institutions controlled by extractive political institutions that harm economic growth and even prevent it from growing are put in the way, the country will fall into crisis. The question of which institutions to choose, that is, what policies the established institutions pursue, represents the main question in studying the reasons for the development or collapse of countries. Why did the policies of some countries lead to the creation of inclusive and economic institutions? Growth? In the past and today we need to know what reasons led to the introduction of extraction mechanisms, the policies of many countries that form the basis of economic development. The conclusion is that everyone should strive to build economic institutions that bring progress. Countries in the world spend all their capital to reduce poverty. The analysis shows that the main reason for the development is the high lime content. In addition, developed countries try to prevent unemployment by creating jobs by providing freedom and support to entrepreneurship. Modern technologies are at the heart of the development of strong and high-quality education. The motivating force for the activity is also education and training in professions and trades. That is why our country attaches great importance to vocational training when it comes to measures to combat poverty. “On additional measures aimed at attracting poor and unemployed citizens to entrepreneurship, increasing their employment and vocational training and ensuring employment of the population” dated August 11, 2020 PQ-4804 - On this issue, Resolution No was adopted. The main goal of the decision is to introduce a new system of vocational and entrepreneurship training for the poor and unemployed, to establish cooperation with the private sector in vocational training, to organize vocational and entrepreneurship training processes, and to implement additional measures to ensure employment of the needy population and disabled people. The implementation of the tasks set out in this decision is of great importance for preventing unemployment and reducing poverty in our country.

REFERENCES

1. New Times journal
2. Mamlakatlar tanazzuli va sabablari qudrat faravonlik va kambag'allik manbaalari
3. 2020 yil 26 mart kuni «Iqtisodiyotni rivojlantirish va kambag'allikni qisqartirishga oid davlat siyosatini tubdan yangilash chora- tadbirlari to'g'risida» PF– 5975-son Prezident Farmoni qabul qilindi

**ИНВЕСТИЦИОН ЛОЙИХАЛАРНИНГ ЭКОЛОГИК
ХАРАЖАТЛАРИ АУДИТИНИ ТАКОМИЛЛАШТИРИШ**

ТМИ мустақил изланувчиси - **А.Рўзмаматов**

**СОВЕРШЕНСТВОВАНИЕ АУДИТА ЭКОЛОГИЧЕСКИХ
ЗАТРАТ ИНВЕСТИЦИОННЫХ ПРОЕКТОВ**

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Аннотация: Мазкур мақолада таҳлилий амаллардан фойдаланиб янги лойиҳалар экологик харажатлари аудитини ўтказиш ҳамда уларни баҳолаш масалалари ёритилган.

Калит сўзлар: инвестиция, янги инвестицион лойиҳа, экологик йўналтирилган лойиҳа, янги лойиҳаларининг самарадорлик кўрсаткичлари, янги лойиҳаларнинг экологик харажатлари, янги лойиҳалар харажатлари аудити, таҳлилий амаллар.

Аннотация: В данной статье рассматриваются вопросы аудита экологических затрат на новые проекты и их оценки с использованием аналитических методов.

Ключевые слова: инвестиции, новый инвестиционный проект, экологически ориентированный проект, показатели эффективности инвестиционных проектов, экологические затраты новых проектов, аудит затраты на новых проектов, аналитические мероприятия.

Annotation: This article discusses the issues of auditing environmental costs for new projects and their assessment using analytical methods

Keywords: investments, new investment project, environmentally oriented project, performance indicators of investment projects, environmental costs of new projects, audit of costs of new projects, analytical activities.

КИРИШ (Intruduction)

Мамлакатимизда худудларни барқарор ривожлантиришда янги лойиҳаларнинг самарадорлигини иқтисодий ҳамда экологик жиҳатдан чуқур ўрганган ҳолда ишлаб чиқаришларни ташкил этиш жуда муҳим ҳисобланади. Жумладан, иқтисодиётда ишлаб чиқариш фаолиятини тўғри ташкил қилиш, янги лойиҳалар давомийлиги ва ўсишини таъминлаш ресурслар мавжудлигига боғлиқ. Бу эса, худудларнинг барқарорлигини таъминлашда иқтисодий ва экологик тизимларнинг уйғунлигини таъминлашга қаратилган лойиҳаларни

танлаш бўйича бошқарув қарорларининг қабул қилиниши билан боғлиқдир. Бундай бошқарув қарорларини қабул қилиш учун экологик харажатларни ҳисобга олиб, таҳлилий амалларни бажариш орқали янги лойиҳаларнинг иқтисодий самардорлигини аниқлаш бўйича батафсил аудиторлик хулосаси талаб этилади. Ҳозирги экологик вазият янги лойиҳалар самардорлигини аниқлашда нафақат фойда ва пул оқимларини, балки лойиҳаларни амалга оширишнинг экологик таъсирини ҳисобга олган ҳолда аудит ўтказишни тақозо этмоқда.

Таъкидлаш жоизки, инвестиция лойиҳаларининг молиявий самардорлигини баҳолашнинг кўплаб усуллари мавжуд. Бу ишда кўриб чиқиладиган усул экологик омилларни ҳисобга олади ва бугунги кун учун ғоятда муҳим. Чунки янги лойиҳаларни амалга ошириш кўламадан қатъи назар, экологик баҳолаш муаммоси сўнгги йилларда Ўзбекистонда жуда долзарб бўлиб келмоқда. Дарҳақиқат, мамлакатимизда атроф-муҳитга жуда катта эътибор бериш талаб этилмоқда ва ҳатто бир қатор ҳукуқий ҳужжатлар қабул қилинмоқда. Масалан, 2024 йил 1 январдан бошлаб атроф-муҳитга таъсири бўйича I тоифага ва II тоифага кирувчи янги объектларни лойиҳалаштиришда юқори самардорликка эга чанг-газ тозалаш ускуналари ва (ёки) локал сув тозалаш иншоотлари ўрнатилиши кўзда тутилмаган лойиҳаларни давлат экологик ва шаҳарсозлик экспертизаларидан ўтказиш ҳамда қурилиши тугалланган объектларни, уларни ўрнатмаган ҳолда фойдаланишга қабул қилиш ман этилади¹.

МАВЗУГА ОИД АДАБИЁТЛАР ШАРҲИ (Literature review on the topic)

Худудларни барқарор ривожлантиришда янги лойиҳаларнинг самардорлиги муҳим омил бўлиши билан бир қаторда тараққиётнинг ҳам маустаҳкам заминига айланаётган бир даврда инсоният инвестициялар ҳақида янги билимларга эга бўлмоқда ва ҳозирда замонавий муаллифлар "инвестиция лойиҳалари" атамасининг кўплаб формулаларини нашр қилмоқдалар. Масалан, Бочаров В. В. фикрича инвестиция лойиҳасининг объекти сифатида ушбу лойиҳани амалга ошириш катта ҳажмда капитал харажатлар (ҳам молиявий ҳам меҳнат) талаб қиладиган ҳар қандай лойиҳа тушунилади. Инвестицион лойиҳалар бошқа камроқ режалаштириш ва ресурсларни талаб қиладиган лойиҳалардан кўпинча оммавийлиги ва нисбатан кўпроқ харажатлар миқдори билан фарқланади[7].

Инвестициялар ва инвестиция фаолияти тўғрисидаги Ўзбекистон Республикасининг Қонунида (25.12.2019 й. N ЎРҚ-598) инвестиция лойиҳасига иқтисодий, ижтимоий ва бошқа фойда олиш учун инвестицияларни амалга

¹ Ўзбекистон Республикаси Президентининг «Экология ва атроф-муҳитни муҳофаза қилиш соҳасини трансформация қилиш ва ваколатли давлат органи фаолиятини ташкил этиш чора-тадбирлари тўғрисида»ги 2023 йил 31 майдаги ПФ-81-сон Фармони

оширишга ёхуд жалб этишга қаратилган, ўзаро боғлиқ бўлган тадбирлар мажмуи дея тариф берилган. Шунингдек, мазкур қонунга кўра инвестиция фаолияти - инвестиция фаолияти субъектларининг инвестицияларни амалга ошириш билан боғлиқ ҳаракатлари мажмуидир, инвестор эса - фойда олиш мақсадида инвестиция фаолияти объектларига ўзининг маблағларини ва (ёки) қарз маблағларини ёхуд жалб қилинган бошқа инвестиция ресурсларини инвестиция қилишни амалга оширувчи инвестиция фаолияти субъектидир.

Ҳар қандай тижорат ташкилоти асосий фаолиятини амалга ошириш учун зарур бўлган ҳар хил турдаги активларни сотиб олиш учун ўз ресурсларини инвестиция қилади. Хўжалик юритувчи субъектларнинг у ёки бу инвестиция лойиҳасини амалга ошириш бўйича қарор қилишда турли мақсадларни кўзлайди. Савчук В. П. "Инвестиция лойиҳаларини тайёрлаш ва таҳлил қилиш" китобида инвестиция лойиҳасини амалга ошириш бўйича учта асосий мақсадни кўрсатади: моддий-техник базани янгилаш, янги турдаги маҳсулотларни яратиш ва корхона ишлаб чиқариш имкониятларини кенгайтириш [8].

Янги лойиҳаларни харажатларини аудит қилишда ҳар доим пул оқимларига катта эътибор берилган. Аммо бугунги кундаги атроф-муҳит билан боғлиқ муаммолар анъанавий баҳолаш методологиясини бироз ўзгартиришни тақозо этмоқда. Хитой молия ва иқтисодиёт университети (Цзянси шаҳри) иқтисод факультети профессори Ван Чуннинг фикрича, корхона фаолиятининг ижтимоий ва экологик таъсирини ҳисобга олмайдиган услубни “экстенсив” деб атаган [9].

ТАДҚИҚОТ МЕТОДОЛОГИЯСИ (Research methodologies)

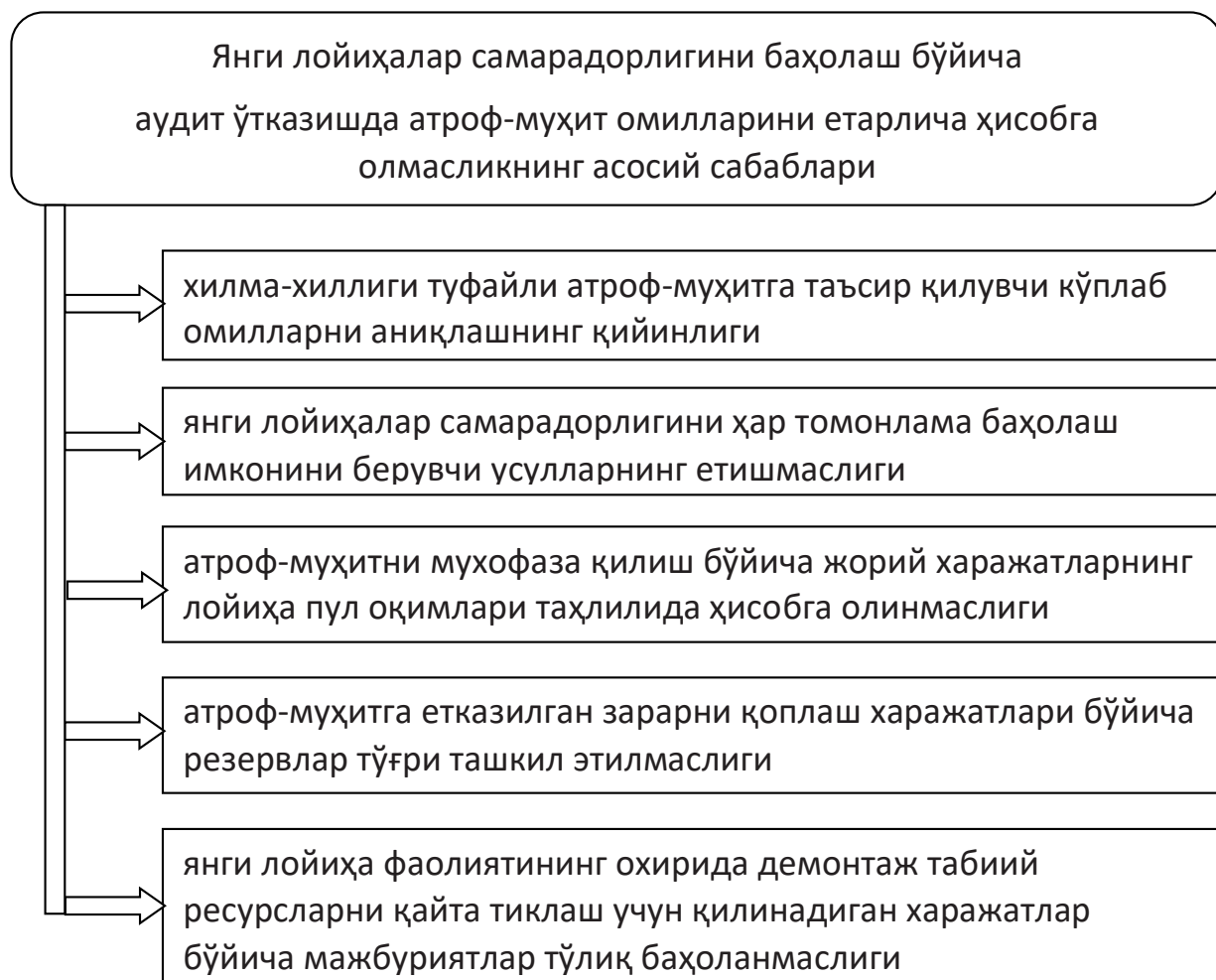
Тадқиқотда янги лойиҳаларга инвестиция киритиш ва унинг муҳим самарадорлик кўрсаткичларини экологик харажатларни ҳисобга олган ҳолда аудит ўтказишда миллий ва халқаро амалиётда қўлланиладиган иқтисодий таҳлил, статистик таҳлил усулларидан фойдаланилган.

НАТИЖА (results) ВА МУХОКОМА(discussion)

Ҳозирги вақтда "яшил" иқтисодиётни шакллантириш ва унинг барқарор ривожланишига ўтиш глобал даражада ҳам, Ўзбекистан учун ҳам устувор вазифалардан биридир. Инсоният келажаги учун барқарор ривожланиш концепцияси муҳим манба бўлиб, у БМТнинг қарор ва ҳужжатларида ўз аксини топган. Замонавий иқтисодиёт кўп жиҳатдан экологик стандартларга риоя қилиш ва барқарор ривожланишнинг халқаро концепциясига йўналтирилганлигига боғлиқ. Иқтисодий ривожланишга ўтиш даврида энг муҳим шарт экологик тоза яшаш муҳитидир. Унга ва умуман экологик-иқтисодий тизимнинг ҳолатига стратегик мақсадларга эришишда муҳим рол ўйнайдиган янги лойиҳаларни амалга ошириш таъсир кўрсатади.

Йирик, ижтимоий аҳамиятга молик лойиҳалар самарадорлигини баҳолаш бўйича аудит ўтказишда лойиҳанинг вилоят ва умуман мамлакат иқтисодиёти

учун оқибатлари тўғрисида қўшимча маълумотларни очиб бериш лозим. Барқарор ривожланишни таъминлаш учун лойиҳа ишлаб ташаббускорлари, инвесторлар ва рухсат берувчи давлат ташкилотлари инвестиция лойиҳаларининг асосий жиҳатлари – иқтисодий ва экологик самарадорлигини ҳисобга олиши муҳим ҳисобланади. Ҳозирги вақтда корхоналарнинг атроф-муҳитни муҳофаза қилиш бўйича масъулиятини оширишда қўлланиладиган усуллар керакли натижаларни бермаяпти. Янги лойиҳалар самарадорлигини баҳолаш бўйича аудит ўтказишда атроф-муҳит омилларини етарлича ҳисобга олмасликнинг қуйидаги сабабларини кўрсатиш мумкин (1-чизма):



1-чизма. Янги лойиҳалар самарадорлигини баҳолаш бўйича аудит ўтказишда атроф-муҳит омилларини етарлича ҳисобга олмасликнинг асосий сабаблари

Янги лойиҳалар самарадорлигини баҳолаш бўйича аудит ўтказишда экологик харажатлари натижаларини пул шаклида ифодалаш ҳамда бир пул оқимида акс эттириш қуйидагиларга имкон беради:

- харажатлар миқдори ва атроф-муҳитни муҳофаза қилиш тадбирлари натижалари ўртасидаги боғлиқликни аниқлаш;
- лойиҳанинг зарур экологик хавфсизлиги даражасига эришиш учун ушбу

кўрсаткичлар нисбатининг оптимал даражасини аниқлаш;

- экологик харажатлар натижасида узоқ муддатли стратегияда кўриладиган иқтисодий наф микдорини ҳисоблаш;

- атроф-муҳитни муҳофаза қилиш бўйича тадбирлар учун харажатлар самарадорлигини акс эттирувчи интеграл кўрсаткичларни аниқлаш.

Санаб ўтилган ҳолатлар инвестиция лойиҳалари самарадорлигини баҳолаш бўйича аудит ўтказишда иқтисодий-экологик баҳолаш методологиясини ишлаб чиқиш зарурлигини белгилайди. Бундай баҳолаш экологик муҳитга таъсирнинг оқибатларини пул кўринишида ҳисоблаш ва уни амалга оширишнинг мақсадга мувофиқлиги ва имкониятлари тўғрисида хулоса чиқариш орқали лойиҳанинг самарадорлиги кўрсаткичларини аниқлашга имкон беради. Бунда лойиҳаларнинг иқтисодий самарадорлиги ва устуворларини аниқлаш, атроф-муҳитга таъсирини баҳолаш мумкин бўлади.

Бугунги кунда корхоналар нафақат сотиш ҳажми ва фойда ҳақида, балки ишлаб чиқаришнинг атроф-муҳитга салбий оқибатларини минималлаштириш ҳақида ҳам ғамхўрлик қилишлари ва атроф-муҳитни муҳофаза қилиш бўйича режалари бўлиши керак. Экологик стандартларга риоя қилиш учун лойиҳа ташаббускорлари энг янги ускуналардан фойдаланиши ҳамда ишлаб чиқариш жараёнини мунтазам равишда модернизация қилиш зарур. Лойиҳа ташаббускорлари қулай атроф-муҳитни сақлаш, табиий ресурслардан оқилона фойдаланиш, лойиҳа охирида ускуналарни демонтаж қилиш бўйича мажбуриятларни ўз зиммаларига олишлари лозим. Атроф-муҳитни тиклаш бўйича ҳуқуқий мажбуриятлар икки ҳолатда вужудга келиши мумкин. Биринчиси, лойиҳа амалга оширилаётган ҳудуд қонунчилиги, ер ости бойликларини қазиб олиш бўйича тузилган шартномалар ва лицензия шартномалари ҳамда давлат органлари билан келишилган лойиҳа ҳужжатлари шартлари талаблари билан боғлиқ ҳолда вужудга келади. Иккинчиси эса, конструктив (ихтиёрий) бўлиб, нашр этилган экологик сиёсатлар, ўтмишдаги амалиётлар, оммавий ахборот воситаларида эълон қилинган бошқарув баёноتلари ва бошқалардан келиб чиқиши мумкин. Атроф-муҳитни қайта тиклаш бўйича мажбурият, қайта тиклаш тадбирларининг амалга оширилиши эҳтимоли мавжуд бўлганда ва тегишли харажатларни ишончли тарзда ўлчаш мумкин бўлганда тан олинади. Одатда бундай мажбуриятни тан олиш учун расмий режа бўлиши керак. Янги лойиҳаларда атроф-муҳитни муҳофаза қилиш бўйича мажбуриятлар иккита ҳолатда юзага келади:

- ишлаб чиқариш фаолияти давомида;
- ишлаб чиқариш жараёни тугагандан сўнг лойиҳани тугатиш пайтида.

Албатта, ушбу ҳаракатлар ва харажатлар пул оқимлари, фойда ва зарарлар, ҳамда янги лойиҳалари харажатлари самарадорлигини баҳолаш бўйича

аудиторлик текшируви хулосасига, пировард натижада лойиҳаларни танлашга таъсир қилади.

Янги лойиҳаларни иқтисодий самарадорлигини молиявий баҳолаш учун иккита усул қўлланилади - Non DFC (Non Discounted Cash Flow- дисконтланмаган пул оқимлари) ва DCF (Discounted Cash Flow- дисконтланган пул оқимлари). Дисконтланмаган пул оқими усули статистик баҳолаш усули бўлиб, вақт ўтиши билан пул қийматининг ўзгаришини ҳисобга олмайди. Дисконтланган пул оқимларида бўйича лойиҳа самарадорлигини баҳолашда эса вақт ўтиши билан пул қийматининг ўзгаришини ҳисобга олади. Янги лойиҳалар харажатлари самарадорлигини баҳолаш бўйича аудиторлик текширувидан ўтказишда қуйидаги кўрсаткичлардан фойдаланиш мумкин:

- "оддий" ўзини оқлаш муддати (PP - Payback Period);
- дисконтланган ўзини оқлаш муддати (DPP - Discounted Payback Period);
- инвестицияларнинг рентабеллик коэффициенти (ROI — Return on Investment);
- инвестицияларнинг фойдалилик индекси коэффициенти (PI — Profitability Index);
- ички рентабеллик даражаси (IRR — Internal Rate of Return)
- соф жорий қиймат (NPV - Net Present Value).

Инвестиция лойиҳаларининг иқтисодий самарадорлигини аниқлашнинг кўпгина усуллари соф жорий қийматни (NPV) ҳисоблашга асосланади. Лойиҳаларнинг иқтисодий самарадорлиги молиявий баҳолашда қўлланиладиган стандарт кўрсаткичларга асосида лойиҳанинг экологик харажатлари ва ундан келадиган наф мезонларини қўшсак, лойиҳаларнинг иқтисодий самарадорлиги молиявий баҳолашнинг янги кўрсаткичи – экологик соф жорий қиймат (ENPV - Environmental Net Present Value)га эга бўламиз. Шунга кўра $NPV > 0$ бўлса ҳам, экологик омилларни ҳисобга олган ҳолда янги лойиҳаларнинг иқтисодий самарадорлигини баҳолашда танлов мезонлари қуйидагилардан иборат бўлади: агар $ENPV > 0$ бўлса, лойиҳа қабул қилиниши мумкин; агар $ENPV < 0$ бўлса, лойиҳа рад этилиши керак. Иккита ўзаро эксклюзив лойиҳадан бирини танлаш керак бўлганда, энг юқори ENPV бўлган лойиҳани танланиши керак. Қуйида янги лойиҳалар харажатларининг аудиторлик текширувида экологик соф жорий қиймат (ENPV) кўрсаткичининг иқтисодий самарадорликни молиявий баҳолашдаги ўрнини мисол ёрдамида кўриб чиқамиз:

1-жадвал. Янги лойиҳа бўйича йиллар кесимида NPV ва ENPV кўрсаткичларини ҳисоблаш бўйича маълумотлар, USD

Давр *	Экологик харажатларни ҳисобга олмаган ҳолда соф пул оқими	Соф жорий экологик харажатлар	Экологик харажатларни ҳисобга олган ҳолда соф пул оқими	NPV	ENPV
0 йил	-5,300,000		-5,800,000		
1 йил	470,402	30,000	440,402	-4,866,450	-5,394,100
2 йил	998,653	60,000	938,653	-4,018,139	-4,596,756
3 йил	1,179,695	70,000	1,109,695	-3,094,547	-3,727,967
4 йил	1,268,734	80,000	1,188,734	-2,179,060	-2,870,207
5 йил	1,358,763	90,000	1,268,763	-1,275,421	-2,026,422
6 йил	1,357,774	100,000	1,257,774	-443,180	-1,255,475
7 йил	1,539,805	110,000	1,429,805	426,696	-447,741
Жам и	8,173,826	540,000	7,633,826	426,696	-447,741

*Лойиҳа бошида инвестиция 5 300 000 USD, лойиҳа бошидаги экологик харажатлар эса 500 000 USD, дисконтлаш ставкаси – 8.5%.

Жадвал маълумотларидан кўринадик, NPV мусбат бўлса ҳам, (426 696) бўлса ҳам, лойиҳа рад этилиши керак, чунки экологик соф жорий қиймат ENPV манфий (-447 741), яъни экологик харажатларни ҳисобга олганда лойиҳа икисодий самарадор эмас.

Янги лойиҳалар фаолиятини экологик стандартларга мувофиқ бошлаганда, албатта унинг харажатлари ошади, лекин бундай лойиҳалар давлат томонидан қўллаб қувватланиши ҳамда бир қатор имтиёзлар ва энгилликлар берилиши ҳам мумкин. Шунингдек, лойиҳа ташаббускорлари лойиҳа танланган ҳудудда ишлашнинг узоқ муддатли истиқболдан манфаатдор бўлса, экологик стандартларга мувофиқ лойиҳани амалга ошириши ва ҳудуддаги маҳаллий аҳоли экологик талабларини ҳам ҳисобга лозим. Шунда янги лойиҳаларнинг экологик талабларни бажармаганлиги учун фаолиятини тўхтатиб қўйишнинг олди олинад, чунки қонунчиликда атроф табиий муҳитга зарарли таъсир кўрсатувчи объектларнинг фаолиятини махсус ваколатли давлат органларининг қарорига кўра чеклаш ёки тўхтатиб туриш мумкинлиги назарда тутилган.

Юқоридаги фикр-мулоҳазалардан келиб чиққан ҳолда, мамлакатимизда амалга оширилаётган янги лойиҳаларнинг экологик харажатлари аудитини такомиллаштириш бўйича қуйидаги таклифлар ишлаб чиқилди:

1. Янги лойиҳаларни ишга тушириш билан боғлиқ харажатлар аудитини ўтказиш учун экологик харажатларни аудитини ҳисобга олган махсус режа ва дастурнинг намунавий шакллари ишлаб чиқиш ҳамда уларни амалиётга жорий этиш.

Натижада: аудиторлик ташкилотлари томонидан янги лойиҳаларни ишга тушириш билан боғлиқ харажатларни аудитдан ўтказиш жараёнида экологик харажатларни ҳисобга олиш такомиллашади ҳамда аудит ўтказиш учун сарфланадиган вақт қисқаришига, шунингдек, аудит натижаларининг самарадорлиги ошишига эришилади.

2. Янги лойиҳалар аудитини ўтказишдаги таҳлилий амалларнинг ҳеч бир усулида лойиҳани амалга ошириш даврида вужудга келиши мумкин бўлган атроф-муҳитни муҳофаза қилиш чора-тадбирлари харажатлар ва улар бўйича резервлар ҳисобга олинмайди. Шунинг учун янги лойиҳалар самарадорлигига аудиторлик хулосаси беришда, кўрсаткичларни ҳисоблаш учун асос қилиб олинган маълумотлар, уларга таъсир этувчи омиллар ва хатарларни баҳолаши ҳамда атроф-муҳитни муҳофаза қилиш чора-тадбирлари харажатлари ва улар бўйича резервларни куйидагиларни ҳисоблаш учун амалга ошириладиган таҳлилий амалларда ҳисобга олиши лозим:

- "оддий" ўзини оқлаш муддати (PP - Payback Period);
- дисконтланган ўзини оқлаш муддати (DPP - Discounted Payback Period);
- инвестицияларнинг рентабеллик коэффициенти (ROI — Return on Investment);
- инвестицияларнинг фойдалилик индекси коэффициенти (PI — Profitability Index);
- ички рентабеллик даражаси (IRR — Internal Rate of Return)
- соф жорий қиймат (NPV - Net Present Value).

Натижада:

биринчидан, янги лойиҳанинг ҳақиқий самарадорлик кўрсаткичларини аниқлаш имкони вужудга келади;

иккинчидан, аудитор томонидан атроф-муҳитни муҳофаза қилиш чора-тадбирлари харажатлари ва улар бўйича резервларни ҳисобга олган ҳолда самарасиз бўлган лойиҳага ижобий хулоса беришнинг олди олинади;

учинчидан, давлат томонидан атроф-муҳитни муҳофаза қилиш чора-тадбирлари харажатлари ва улар бўйича резервларни ҳисобга олган ҳолда самарасиз бўлган лойиҳани танлаб олишнинг олди олинади;

тўртинчидан, инвестор томонидан атроф-муҳитни муҳофаза қилиш чора-тадбирлари харажатлари ва улар бўйича резервларни ҳисобга олган ҳолда самарасиз бўлган лойиҳага инвестиция киритишнинг олди олинади.

ХУЛОСА (conclusion)

Янги лойиҳаларни амалга оширишнинг экологик оқибатларини пул шаклида тақдим этишнинг мураккаблиги, лойиҳа амалга ошириш бошланишидан олдин амалга оширадиган ва жорий экологик харажатларни ва уларнинг юзага келиш эҳтимолини профессионал мулоҳазалар билан пухта баҳолаш муҳимлигини кўрсатади. Лойиҳанинг ҳаётий циклининг охирига келиб салбий экологик оқибатларнинг тўпланиши хавфи туфайли лойиҳани тугатиш босқичининг аҳамияти оширади ҳамда жуда катта эътибор талаб қилади. Шу жиҳатдан, янги лойиҳаларнинг мазкур экологик харажатларини ҳисобга олган ҳолда унинг иқтисодий самарадорлигини баҳолаш учун ўтказиладиган аудит махсус режа ва дастур асосида ташкил этиш ҳамда такомиллаштириш бўйича таклифлар натижасида қуйидагиларга эришилади:

1. Янги лойиҳаларни ишга тушириш билан боғлиқ харажатлар аудити бўйича ишлаб чиқилган махсус режа ва дастур асосида янги лойиҳаларнинг экологик харажатларини аудитдан ўтказишни такомиллаштирилади ҳамда аудит ўтказиш учун сарфланадиган вақт қисқаришига, шунингдек, аудит натижаларининг самарадорлигининг ошишига эришилади.

2. Янги лойиҳалар самарадорлигини аниқлаш кўрсаткичлари ("Оддий" ўзини оқлаш муддати (PP - Payback Period), дисконтланган ўзини оқлаш муддати (DPP - Discounted Payback Period), инвестицияларнинг рентабеллик коэффициенти (ROI — Return on Investment), инвестицияларнинг фойдалилик индекси коэффициенти (PI — Profitability Index), ички рентабеллик даражаси (IRR — Internal Rate of Return), соф жорий қиймат (NPV — Net Present Value))да экологик харажатлар, шунингдек улар бўйича резервларнинг шакллантирилганлигини ҳисобга олган ҳолда таҳлил қилиш орқали аудиторлик хулосасини бериш натижасида янги лойиҳанинг ҳақиқий самарадорлик кўрсаткичларини аниқлаш имкони вужудга келади ҳамда аудитор томонидан атроф-муҳитни муҳофаза қилиш чора-тадбирлари харажатлари, шунингдек улар бўйича резервларни ҳисобга олган ҳолда самарасиз бўлган лойиҳага ижобий хулоса беришнинг олди олинади, дирекция томонидан атроф-муҳитни муҳофаза қилиш чора-тадбирлари харажатлари, шунингдек улар бўйича резервларни ҳисобга олган ҳолда самарасиз бўлган лойиҳани танлаб олишнинг олди олинади, инвестор томонидан атроф-муҳитни муҳофаза қилиш чора-тадбирлари харажатлари, шунингдек улар бўйича резервларни ҳисобга олган ҳолда самарасиз бўлган лойиҳага инвестиция киритишнинг олди олинади.

Фойдаланилган адабиётлар рўйхати

1. “2022 — 2026 Йилларда Ўзбекистон Республикасининг инновацион ривожланиш стратегиясини тасдиқлаш тўғрисида”ги Ўзбекистон Республикаси Президентининг 06.07.2022 йилдаги ПФ-165-сонли Фармони. <https://lex.uz/docs/6102462>

2. Ўзбекистон Республикаси ҳудудида қўллаш учун молиявий ҳисоботнинг халқаро стандартлари ва унга тушунтиришлар матнини тан олиш тўғрисида Ўзбекистон Республикаси молия вазирининг буйруғи, 09.12.2022 йилда рўйхатдан ўтган, рўйхат рақами 3400. <https://lex.uz/docs/6312360>
3. “Ўзбекистон Республикасининг тўғридан-тўғри инвестициялар жамғармаси фаолиятини такомиллаштириш чора-тадбирлари тўғрисида”ги Ўзбекистон Республикаси Президентининг 08.09.2022 йилдаги ПФ-215-сонли Фармони. <https://lex.uz/docs/6185471>
4. “2030 йилгача бўлган даврда Ўзбекистон Республикасининг атроф муҳитни муҳофаза қилиш концепциясини тасдиқлаш тўғрисида”ги Ўзбекистон Республикаси Президентининг 30.10.2019 йилдаги ПФ-5863-сон Фармони. <https://lex.uz/uz/docs/4574008>
5. Ўзбекистон Республикасининг Қонуни. Бухгалтерия ҳисоби тўғрисида. N ЎРҚ-404, 13.04.2016 й.
6. Ўзбекистон Республикасининг Қонуни. Инвестициялар ва инвестиция фаолияти тўғрисида. N ЎРҚ-598, 25.12.2019 й.
7. Бочаров В. В. Инвестиционный менеджмент: Учеб. пособ / –СПб: Питер, 2000. —160с.
8. Савчук В. П. Анализ и разработка инвестиционных проектов: Учеб. пособие для вузов / В. П. Савчук, С. И. Прилипко, Е. Г. Величко.–:Абсолют-В, 2012. – 302с.
9. WAN Chun, Economy School, Jiangxi University of Finance and Economics, P.R.China, «Financial Evaluation of Investment Projects from the Angle of Ecology», 2012.
10. Бирман Г., Шмидт С. Экономический анализ инвестиционных проектов. Пер. с англ. ред. LP Белый. - М: Банки и биржи, UNITY, 2002.
11. Чуприкова З.В. Аудит инвестиционных проектов. Учебное пособие. – М.: МИИТ, 2016. – 122 с.
12. Jia, X., Cui, Y., Patro, R., Venkatachalam, S., Kanday, R. & Turayevich, J. (2023). Application of fractional-order nonlinear equations in coordinated control of multi-agent systems. *Nonlinear Engineering*, 12(1), 20220335. <https://doi.org/10.1515/nleng-2022-0335>
13. Бабаев Ю. А., Петров А. М. Международные стандарты финансовой отчетности (МСФО). М.: Вузовский учебник: ИНФРА-М, 2018. 398 с.
14. Мельник М. В. Анализ финансово-хозяйственной деятельности предприятия. Учебное пособие. М.:ФОРУМ: ИНФРА-М, 2020. – 208 с.
15. Туйчиев А., Қўзиев И., Авлоқулов А., Шеримбетов И., Авазов И. Аудит. Дарслик. – Т.: “Иқтисод-Молия”, 2019. – 530 б.
16. Рахимов М.Ю. ва бошқалар. Иқтисодий таҳлил. Дарслик. Т.: Ниҳол-Принт, 2021. -492 б.
17. Қўзиев И.Н., Ҳамдамов Б.К., Авазов И.Р., Очилав Ф.Ш. Аудитнинг халқаро стандартлари. Электрон дарслик. –Т.: ТМИ. 2021 й
18. Трофимова Л. Б. Международные стандарты финансовой отчетности: учебник и практикум для бакалавриата, специалитета и магистратуры / Л. Б. Трофимова. — 5-е изд., испр. и доп. — М. : Издательство Юрайт, 2019. — 242 с.

19. Jumaniyazov, I. T. (2021). The Progressive Foreign Experiments in the Activity of Sovereign Wealth Funds. *Annals of the Romanian Society for Cell Biology*, 109-116.
20. Jumaniyozov, I. (2018). Impact of Development Finance Institutions on Economic Growth: Implications for Reconstruction and Development Fund of Uzbekistan. *International Journal of Management Science and Business Administration*, 4(2), 84-88.
21. Jumaniyozov, I. (2020). ISSUES OF ENSURING THE TRANSPARENCY OF SOVEREIGN WEALTH FUNDS. *International Finance and Accounting*, 2020(5), 1.
22. Jumaniyazov, I. (2020). FOREIGN EXPERIENCE IN THE ACTIVITIES OF SOVEREIGN FUNDS. *International Finance and Accounting*, 2020(2), 1.
23. Jumaniyazov, I. T. (2021). Transparency Is A Key Indicator Of The Activity Of Sovereign Wealth Funds. *The American Journal of Management and Economics Innovations*, 3(05), 30-37.
24. Жуманиязов, И. Т. (2016). Основные задачи Фонда реконструкции и развития Республики Узбекистан. *Наука, образование и культура*, (7 (10)), 27-28.
25. Жуманиязов, И. Т. (2016). Направления использования средств Фонда реконструкции и развития Республики Узбекистан. *Economics*, (7 (16)), 28-29.
26. Jumaniyazov, I. T. (2022). O'zbekistonda davlat moliya tizimidagi islohotlar va rivojlantirish istiqbollari. *Science and Education*, 3(5), 1637-1645.
27. Inomjon Turaevich Jumaniyazov, & Bexruz Hazratov (2022). Foreign experience in the development of special economic zones in Uzbekistan. *Science and Education*, 3 (5), 1628-1636.
28. Jumaniyazov Inomjon Turaevich, & Juraev Maqsud Annaqulovich (2022). Korxonalarda moliyaviy qarorlar qabul qilish va risklarni baholash usullari. *Science and Education*, 3 (5), 1646-1654.
29. Jumaniyazov, I. T. (2019). The impact of Uzbekistan Reconstruction and development fund's expenditure on GDP growth. *Science, research, development № 16. Monografiya pokonferencyjna*.
30. Jumaniyazov, I., & Xaydarov, A. (2023). The importance of social insurance in social protection. *Science and Education*, 4(1), 1033–1043. Retrieved from <https://openscience.uz/index.php/sciedu/article/view/4941>
31. Inomjon, J. (2023). GENDER BYUDJETLASHTIRISHDA DAVLAT MOLIYAVIY NAZORATINING O'RNI. *Новости образования: исследование в XXI веке*, 1(6), 1187-1191.
32. Бахронов, Ж., & Жуманиязов, И. (2023). Партисипатор бюджетлаштириш ва уни Ўзбекистонда қўллаш долзарблиги. *Science and Education*, 4(2), 1486–1493. Retrieved from <https://openscience.uz/index.php/sciedu/article/view/5234>
33. Davlatboyeva, M. S. qizi, & Jumaniyazov, I. T. (2023). Yashil byudjetlashtirish va uni O'zbekistonda joriy etish istiqbollari. *Science and Education*, 4(2), 1509–1516. Retrieved from <https://openscience.uz/index.php/sciedu/article/view/5237>

34. Jumaniyazov, I. T. (2019). Evaluation criteria for the efficiency of sovereign funds. *Global science and innovations 2019: Central Asia*. In International scientific conference.–Nur-Sultan (Kazakhstan) (Vol. 340, pp. 226-229).
35. Jumaniyazov, I. T. The significance of Uzbekistan reconstruction and development fund's financial capital on economic growth of Uzbekistan. *International Journal of Economics, Commerce and Management United Kingdom* ISSN, 2348, 0386.
36. Jumaniyazov, I., & Mahmudov, M. (2022). Experience of foreign countries in attracting foreign investment. *Asian Journal of Research in Banking and Finance*, 12(5), 32-37.
37. Jumaniyozov, I. T., & Abdumannobov, A. M. (2020). MANAGING PUBLIC DEBT. In *Ключевые проблемы современной науки* (pp. 3-7).
38. Jumaniyozov, I. T., & Bakhodirkhujayev A.F. (2020). ISSUES AND CHALLENGES FOR THE IMPLEMENTATION OF MACROPRUDENTIAL POLICY IN UZBEKISTAN. In *Ключевые проблемы современной науки* (pp. 8-11).
39. I. T. Jumaniyazov, & A. Khaydarov. (2023). THE İMPACT OF UZBEKİSTAN'S SOVEREİGN WEALTH FUNDS ON ECONOMIC GROWTH. *American Journal of Research in Humanities and Social Sciences*, 10, 1–7. Retrieved from <https://www.americanjournal.org/index.php/ajrhss/article/view/495>
40. Jumaniyazov, I. T. (2019). The impact of Uzbekistan Reconstruction and development fund's expenditure on GDP growth. *Science, research, development*, 16.
41. Жуманиязов, И. Т. (2023). РЕСПУБЛИКА ВА МАҲАЛЛИЙ БЮДЖЕТ ДАРОМАДЛАРИ БАРҚАРОРЛИГИНИ ТАЪМИНЛАШ МАСАЛАЛАРИ. *PEDAGOGS jurnali*, 35(4), 109-120.
42. Jumaniyazov, I., & To'laganova, F. (2023). Aksiyadorlik jamiyatlarining korporativ moliya strategiyasini rivojlantirishda xorij tajribasi. *Science and Education*, 4(6), 836–847. Retrieved from <https://opencscience.uz/index.php/sciedu/article/view/6095>
43. Jumaniyazov, I., & Qayumova, M. (2023). Fuqarolik ishtirokidagi “Tashabbusli byudjet” turlari va uni O'zbekistonda qo'llash dolzarbligi. *Science and Education*, 4(6), 853–859. Retrieved from <https://opencscience.uz/index.php/sciedu/article/view/6101>
44. Жуманиязов, И. Т., & Садыкова, Н. О. (2023). Ўзбекистонда ва жахонда суверен фондлар инвестицион фаолияти. *Science and Education*, 4(6), 915–920. Retrieved from <https://opencscience.uz/index.php/sciedu/article/view/6106>
45. Jumaniyazov, I., & Vohidova, R. (2023). Davlat byudjeti mablag'laridan foydalanishda moliyaviy nazoratni kuchaytirish yo'llari. *Science and Education*, 4(6), 881–887. Retrieved from <https://opencscience.uz/index.php/sciedu/article/view/6100>
46. Inomjon, J., & Sarvar, A. (2023). SUVEREN FONDLAR FAOLIYATI VA ULARNING MOLIVAVIY MABLAG 'LARINI SAMARALI FOYDALANISHNING XORIJ TAJRIBASI. *PEDAGOGS jurnali*, 35(4), 102-108.

47. Jumaniyazov, I. T., & Islomov, A. (2023). O 'RTA MUDDATLI DAVR UCHUN FISKAL STRATEGIYANI TAKOMILLASHTIRISH ISTIQBOLLARI. PEDAGOGS jurnali, 35(4), 121-127.
48. Jumaniyazov, I. T., & Abdurahmonov, Q. (2023). TIKLANISH VA TARAQQIYOT JAMG 'ARMASINING BANKLAR FAOLIYATIDAGI ISHTIROKI. PEDAGOGS jurnali, 35(4), 139-146.
49. Asror, A., & Inomjon, J. (2023). O'ZBEKISTONDA DAVLAT BOSHQARUV ORGANLARI ISH HAQI TIZIMINI TAKOMILLASHTIRISH MASALALARI. PEDAGOGS jurnali, 35(4), 128-138.
50. I.T.Jumaniyazov, & I.A.Mingboyev (2023). Gender budgeting and prospects for its implementation in Uzbekistan. Science and Education, 4 (5), 1518-1523.
51. Turayevich, J. I., & Akmal o'g'li, S. M. (2023). INVESTITSION LOYIHALARNI MOLIYALASHTIRISHDA TIKLANISH VA TARAQQIYOT JAMG'ARMASINING O'RNI. PEDAGOGS jurnali, 35(4), 147-157.
52. Шеремет, А. Д. Анализ и диагностика финансово-хозяйственной деятельности предприятия. Учебник. М.:ИНФРА-М, 2021. – 374 с.
53. Abdullaev Aybek Nazarbaevich, Jumaniyazov Inomjon To'raevich, Sabirov Mirza Qilichbayevich, & Gulomov Ibrokhim Rustam ugli. (2024). Development Of China's Sovereign Wealth Funds. Wire Insights: Journal of Innovation Insights, 2(1), 1–8. Retrieved from <https://academiaone.org/index.php/7/article/view/479>
54. Sovereign wealth funds of the Republic of Uzbekistan in the post-pandemic period. (2023). Pedagogical Cluster-Journal of Pedagogical Developments, 1(2), 355-372. <https://euroasianjournals.org/index.php/pc/article/view/73>
55. Mirza Qilichbayevich Sabirov, Ibrokhim Rustam ugli Gulomov, Inomjon To'raevich Jumaniyazov, & Aybek Nazarbaevich Abdullaev. (2023). Relevance and Application of Compulsory Health Insurance in Republic of Uzbekistan. Journal of Intellectual Property and Human Rights, 2(11), 71–76. Retrieved from <http://journals.academiczone.net/index.php/jiphr/article/view/1477>
56. <https://www.lex.uz>-Ўзбекистон республикаси қонунчилик маълумотлари миллий базаси

PROBLEMS OF TRANSLATOR'S FALSE FRIENDS

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Annotation

The article is devoted to the problem of translator's false friends which are considered to be one of the most serious issues in the context of the theory and practice translation. It also observes the reasons of interpretive mistakes concerning these words and gives recommendations how to avoid blunders while translating different texts. The problem is verified by the following fact: many words borrowed by Russian from the source as English from, kept closer to the original meaning. So, a noun 'chef' was borrowed from French into English with the more specific meaning of 'chef cook' while it was borrowed into Russian as 'шеф' with the meaning of 'leader', 'boss'.

Annotatsiya

Maqola o'xshash shakliga ega bo'lgan so'z va iboralarni tarjima qilishda uchraydigan muammolarga bag'ishlangan bo'lib, bu nazariya va amaliyot tarjimasi kontekstida eng jiddiy muammolardan biri hisoblanadi. Shuningdek, ushbu so'zlarning izohli xatolar sabablarini ko'rib chiqadi va turli matnlarni tarjima qilishda qo'pol xatolarga yo'l qo'ymaslik bo'yicha tavsiyalar beradi. Muammo quyidagi fakt bilan tasdiqlangan: rus tilidan ingliz tilidan olingan ko'plab so'zlar asl ma'noga yaqinroq saqlanadi. Shunday qilib, "oshpaz" so'zi frantsuz tilidan ingliz tiliga "oshpaz oshpaz" so'zining aniq ma'nosi bilan, rus tiliga esa "rahbar", "xo'jayin" ma'nolari bilan "oshpaz" sifatida olingan

Аннотация

Статья посвящена проблеме ложных друзей переводчика, которая считается одной из наиболее серьезных проблем в контексте теории и практики перевода. Также рассматриваются причины ошибок интерпретации этих слов и даются рекомендации, как избежать ошибок при переводе различных текстов. Проблема подтверждается следующим фактом: многие слова, заимствованные русским языком из источника, как и английским, сохранились ближе к первоначальному значению. Так, существительное «шеф» было заимствовано из французского языка в английский язык с более конкретным значением «шеф-повар», а в русский язык оно было заимствовано как «шеф» со значением «лидер», «начальник».

A false friend can trick people into thinking it is the correct translation of a word from your first language. Thus, it's crucial to **identify these confusing words** to

prevent awkward situations and shocked reactions from people who are native speakers of the language you are translating into.

In this article, we will look at some **false friends examples** to help you better grasp what they are.

We came up with a **list of false friends** that are present between English and German, English and Spanish, English and Portuguese, English and Italian, and English and French. Each case consists of an English word, its translation to another language, the false friend term, plus its meaning.

What is a false friend?

False friends are word pairings in two different languages that appear to have a similar phonetic form, but in reality have entirely different meanings, origins, and spelling.

For example, the German word “enkel”, although pronounced nearly the same as English word “ankle”, means “grandchild.” So if you roll your ankle in Germany and ask for help with your “enkel,” you may confuse a few people.

This is the concept of a false friend—a word that deceives you into thinking it’s the proper translation of a word from your native language.

The expression “Faux amis du traducteur” was first introduced in a 1928 book by French linguists Maxim Koessler and Jules Derecquigny. The term was translated into English as “false friends of the translator” and later shortened simply to “false friends.”

False friends are also known more technically as bilingual homophones.

Why false friends aren’t so friendly?

As you can imagine, false friends pose numerous problems not only for those who have only just begun learning foreign languages.

Let’s consider the following example:

Picture a couple out on a coffee date. The woman speaks primarily English, the man Spanish. As she gets up from the table to grab a napkin, she spills some coffee on his lap and declares “estoy embarazada!”—intending to say she is embarrassed by the incident. The man’s eyes grow large and they both have a laugh when he explains she mistakenly announced to everyone in the café that she is pregnant! In a social setting like this, the improper use of a word or phrase could result in a laugh or, worse yet, an awkward silence.

Examples of false friends

As you will see in the examples below, there are different types of false friends you need to be aware of:

across different languages

within a single language

non-verbal communication

False friends across languages

These examples highlight the confusion that can arise when you try to use a word in a different language that sounds a lot like the original but means something else entirely:

Polish-English: aktualnie – currently; actually – właściwie

Polish-Czech: czerstwy – stale; čerstvy – fresh

Spanish-English: morbido – soft, delicate; morbid – enfermizo

German-English: gift – poison; gift – Geschenk

Czech-Russian – ovoce (o-vo-tse) – fruit; овощи (o-vo-schi) – vegetables.

Swedish-English: ett barn – a child; barn – ladugård

Dutch-German: slim – smart; schlimm – bad, terrible

French-English: pain – bread; pain – douleur

Spanish-Italian: burro – donkey; burro – butter

False friends within a language

Interestingly, false friends can be found also within one language. To use an English example, for an American person, “pants” means “trousers”, whereas for a British person the same term means “undergarment.”

Non-verbal false friends

To add another layer, false friends can affect non-verbal communication as well. While a thumbs up is widely recognized as a sign of approval or agreement, it’s taken as highly offensive thumbs down in some parts of the middle east. The most common mistake made by Poles spending their holidays in Bulgaria, for example, is the wrong interpretation of non-verbal confirmation or negation. In the Black Sea region, a single nod of one’s head up means “no” while turning it from the left to the right means “yes”.

Where do they come from?

False friends come about for a few reasons.

1. Shared etymology

Sometimes it’s the case where two languages shared common origins, but a word shifted meanings or acquired additional meanings over time. This can lead to the emergence of false friends. Take the word “friend” as an example. The original Germanic term was used to describe someone you care for, leaving that open to include both family ties as well as relationships formed along the way.

Scandinavian facsimiles like Swedish (frände) and Danish (frænde) predominantly mean “relative”—a closer link than what friend has come to be understood in English.

2. Homonyms

Homonyms are words that have the same spelling or pronunciation but different meanings and origins. A fun example is the Swedish word “rolig”, which means “fun”. In Danish and Norwegian, however, “rolig” means calm, generally not the state in which you display you are having fun.

3. Pseudo-Anglicisms

These are words in other languages that are formed with some English elements and may appear to be English but in fact are not. For example, table football or foosball is known in France as “baby-foot”. Made up of two English words, there is no equivalent in the language it resembles.

False friends vs. internationalisms

In any discussion on false friends, you should also be aware of internationalisms. Internationalisms are other words or phrases that sound very similar or even identical in several languages. Unlike false friends, though, they have the same meaning. Internationalisms are particularly apparent within languages of the same group, particularly the Romance and Germanic languages. Common etymologies of a given word are linked to its earliest beginnings. European languages therefore contain a bevy of words of Latin or Greek origin which can serve as excellent examples of internationalisms.

Take, for example, the Polish *cywilizacja*, German *Zivilisation*, Spanish *civilización*, and English *civilization*. As we can see, the word of Latin origin has taken very similar forms (both in graphic and phonetic terms) in several languages while retaining its original meaning.

As you can see, internationalisms often make learning foreign languages easier, whereas false friends can make it much more difficult. Think of it as bumping into an old friend on the street. You’re delighted to see them, and it’s good to catch up and regain that sense of familiarity. That’s an internationalism. False friends, on the other hand, may seem like they’re being helpful, but really, they’re only leading you astray. The recognition of internationalisms should keep you on guard for “false friends” you might come across along the way. In being aware of that spectrum, individual learners will move beyond standard ways of thinking about languages. Additionally, translators will be even more focused on the text to make sure they’re getting the right message across.

How False Friends Impact Translation

When it comes to formal translation projects, a seemingly trivial error caused by a false friend can have serious consequences.

Take for example, these small translation mistakes that had a major impact.

As we have seen, it’s not enough for translators simply know a foreign language. In addition to knowing the grammatical complexities of a language, they must also be aware of common false friends that may trip them up.

Translators must possess strong localization knowledge, meaning an awareness of local customs, traditions, and culture of a given region that may impact how words and phrases are translated. To learn more about what experienced translators can do for your business, check out Summa Linguae’s translation services.

Why Invest in Hybrid Machine Translation Services

Here’s why hybrid machine translation services are the current language solutions sweet spot. In the past,..

Actual, which in English is usually a synonym of *real*, has a different meaning in other European languages, in which it means 'current' or 'up-to-date', and has the logical derivative as a verb, meaning 'to make current' or 'to update'. *Actualise* (or 'actualize') in English means 'to make a reality of'.

The Italian word *confetti* "sugared almonds" has acquired a new meaning in English, French and Dutch; in Italian, the corresponding word is *coriandoli*.

English and Spanish, both of which have borrowed from Ancient Greek and Latin, have multiple false friends, such as:

English	Spanish translation	Spanish	English translation
actually	<i>en realidad</i>	actualmente	<i>currently</i>
advertisement	<i>publicidad</i>	advertencia	<i>warning</i>
bizarre	<i>extraño</i>	bizarro	<i>brave</i>

English and Japanese also have diverse false friends, many of them being wasei eigo and gairaigo words

In native wordsedit

The word *friend* itself has cognates in the other Germanic languages; but the Scandinavian ones (like Swedish *frände*, Danish *frænde*) predominantly mean 'relative'. The original Proto-Germanic word meant simply 'someone whom one cares for' and could therefore refer to both a friend and a relative, but lost various degrees of the 'friend' sense in Scandinavian languages, while it mostly lost the sense of 'relative' in English (the plural *friends* is still, rarely, used for "kinsfolk", as in the Scottish proverb *Friends agree best at a distance*, quoted in 1721).

The Estonian and Finnish languages are closely related, which gives rise to false friends such as swapped forms for south and south-west:[4]

Estonian	Finnish	English
<i>lõuna</i>	<i>etelä</i>	south
<i>edel</i>	<i>lounas</i>	south-west

Or Estonian *vaimu* 'spirit; ghost' and Finnish *vaimo* 'wife'; or Estonian *huvitav* 'interesting' and Finnish *huvittava* 'amusing'.[3]

A high level of lexical similarity exists between German and Dutch,[9] but shifts in meaning of words with a shared etymology have in some instances resulted in 'bi-directional false friends':[10][11]

German	Dutch	English
<i>See</i>	<i>meer</i>	mere (lake)
<i>Meer</i>	<i>zee</i>	sea

German	Dutch	English
<i>mögen</i>	<i>houden van</i>	like, love
<i>dürfen</i>	<i>mogen</i>	be allowed to
<i>wagen</i>	<i>durven</i>	dare

Examples

1. Аккорд [akórd]- chord vs **Accord** — согласие [saglásiye].

Ex.: -Ну как ты играешь! Это же неправильный аккорд!

(How are you playing! This is a wrong chord).

2. Артист [artist]- entertainer vs **Artist**- художник [hudozhnik].

Please, note that there are also feminine forms for these words: артистка / художница (feminitives)

Ex.: — Он прекрасный артист и добрый человек! (He is a great entertainer and a kind person).

БОШҚАРУВ МАДАНИЯТИ ВА УНИНГ БОШҚАРИШ ҚОБИЛИЯТЛАРИНИ РИВОЖЛАНТИРИШДАГИ ЎРНИ

Abduraxmonova Xurshida G'ofurovna

*Nizomiy nomidagi Toshkent davlat
pedagogika universiteti mustaqil tadqiqotchisi*

Анотация: Бошқариш маданиятини такомиллаштириш унинг барча элементларига эътиборни кучайтириш демакдир. Раҳбарнинг маданият даражаси бу ўта мураккаб кўрсаткич ҳисобланади, раҳбарлик, раҳбардан бошқарув маданиятининг қонуниятларига бўйсунгани талаб этади.

Калит сўзлар: бошқарув маданияти, бошқарув этикаси, ижтимоий тараққиёт қонунлари, қарор, сиёсий ёндошув, бошқаришни демократлаштириш, рағбатлантирувчи бошқарувчи, назорат.

Замонавий раҳбар турли йўналишларда билим ва кўникмаларга эга бўлиши керак: ходимлар билан ишлаш тизими, бошқарув усуллари, бошқарув маданияти, техник бошқарув воситалари, бошқарув жараёнларининг тузилиши ва технологиясини лойиҳалаш ва рационализация қилиш учун билим соҳалари ва бошқалар. Таълим ташкилоти раҳбарининг бошқарув компетентлиги нафақат билим, балки ишлаш қобилиятидир; коммуникатив, конструктив, ташкилий кўникмаларнинг умумийлиги, шунингдек, ушбу кўникмаларни ўз ишларида амалда қўллаш қобилияти ва тайёрлиги; ходимнинг одатдаги ва ўта оғир шароитларда ўз функцияларини сифатли ва аниқ бажариши, янги муаммони муваффақиятли ўзлаштириши ва ўзгарувчан шароитларга тез мослаша олиши.

Раҳбарлик, раҳбардан бошқариш маданиятининг қонуниятларига бўйсунгани талаб этади. Боқарув маданияти ўз ичига ахлоқ, одоб-қоидаларини олиш керак. Бошқариш маданиятини такомиллаштириш унинг барча элементларига эътиборни кучайтириш демакдир. Раҳбарнинг маданият даражаси бу ўта мураккаб кўрсаткич ҳисобланади. Маданият, бошқарув услубининг энг муҳим мажмуасидир. Демак, бошқаришни маданият ,одоб, ахлоқ нормаларига бўйсунган ҳолда олиб бормоқ керак. Бошқарув хизмати этикаси ҳақида раҳбар ўз ишида одоб қоидаларининг мулойимлик ва ўзаро ёрдам ҳамжиҳатлик, катталарга ҳурмат, кичикларга иззат ва ҳар бир жамоа аъзосига нисбатан инсонийлик, шахс сифатида муносабат ва шу каби меъёрларга таяниши ва шу асосда иш олиб бориши зарур бўлади. Шу билан бирга раҳбарнинг ижтимоий аҳволи унинг ўзига хос ахлоқини ҳам белгилайди. Бу сифат раҳбарнинг ўта тўғрилигини ифодалайди ва уни юқори ташкилот ва идораларга нотўғри ахборотлар беришдан қонун қоидаларни бузишдан ўзини тияди.

Йиғилишлар ўтказиллаётган вақтда уларнинг қатнашчиларига нисбатан мулойим бўлиш керак, чунки одамлар бундай йиғилишларга мақбул бошқарув қарорларини яратиш учун келадилар, бундай қарорлар эса биринчи навбатда, раҳбар учун ўта муҳим ҳисобланади. Бошқаларни сабртақат билан эшита олиши, сўзловчиларнинг сўзини охиригача эшитишга ҳаракат қилиши, ходимларнинг фаоллигини такрорлаши керак. Кўпчилик олдида оддий раҳмат айтиш ёки миннатдорчилик билдириш баъзан моддий тақдирлашдан ҳам афзал бўлиш мумкинлигини унутмаслик керак. Агар бирор ходимни ишдаги нуқсонлари учун жазоламоқчи бўлсангиз, албатта адолат чегарасидан чиқмаслик ва қўпол муомала қилмаслик керак. Сўз шаклини ва жазо турини танлашда, жазоловчи ходимларнинг ёшини жинсини ва ҳаракатларини инобатга олиш керак. Танқид - одамларга катта ва зарур таъсир кўрсатувчи воситадир.

Маълумки, бошқарув жараёни учун ижрочиликнинг психологик хусусиятлари ва уларнинг ўзига хослиги муҳим аҳамиятга эга. Худди шу боисдан жамоа гуруҳ ва уларнинг аъзолари юзасидан муайян даражадаги психологик маълумотлилик фаолият ва муомалали ташкил қилиш, уюштириш мулоқатга киришиши воқеъликка тортилганлик масалаларни эътиборга олиш бошқарув жараёнини мақсадга мувофиқ амалга оширишни таъминлайди. Раҳбарлик, психологик саводхонлик ҳар қайсиси алоҳида хусусият, вазият, ҳолат, зиддият, шахс қаршилиги, муносабат, муаммо ва ечимга оқилона ва омилкорлик билан индивидуал ёки дифференциал ёндошишни амалиётга татбиқ этишга кенг қўламли имконият, пухта шарт-шароит шахсий услуб вужудга келишига негиз яратади. Бинобарин раҳбар ходимларнинг индивидуал типологик хусусиятлари бўйича психологик билимлар билан қаноат ҳосил қилмасдан, балки ижтимоий психологик ҳолатлар, қонуниятлар, ҳодисалар ривожини, уларни келтириб чиқарувчи омиллар ҳаракатланувчи механизмлар ижтимоий ҳодисалар ривожини, уларни келтириб чиқарувчи омиллар ҳаракатланувчи механизмлар ижтимоий муаммоларнинг ечими жараёнда қатъий қабул қилиш ва уни бажаралиши босқичлари тўғрисидаги маълумотлар билан қўлланиши лозим. Акс ҳолда жамоа гуруҳ сингари микротузилмаларни бошқаришда психологик муҳитни барқарорлаштиришда шахслараро муносабатларни тўғри ташкил қилишда ишлаб чиқаришни йўлга қўйишда одамлар ўртасида ўзаро таъсир, таъсирланиш, таассурот ўзаро тушуниш ҳамдардлик каби мураккаб кечинмалар кучи давомийлигини англаб етишда нуқсон ва камчиликларга йўл қўйилади.

Раҳбар ходимлар инсонлар темпираменти улар хусусиятлари ҳақида тўлиқ тушунчага эга бўлиши, раҳбарнинг ўз фаолиятини мувафақиятли бошқаришига омил бўла олади. Бошқаришнинг илмийлик қонидаси. Бу қонидани амалга ошириш ижтимоий тараққиёт қонунларини тобора тўлароқ билиб боришини ва улардан кундалик юритиш амалиётида борган сари тўлароқ фойдаланишни тақоза этади.

Раҳбардаги муҳим сифатлар борки, улар бошқариш ишининг самарасига ижобий таъсир кўрсатади. Раҳбарнинг мустақил фикирлилик, топқирлик, ташаббускорлик сифатлари, муомала маданияти - у ўринли, аниқ, самимий гапириш маданияти ва суҳбатдошни тинглаш қобилиятидир. Бугунги кунда бошқарувнинг илмий асосланган ва тажрибада синаб кўрилган қоидаларига таянмай туриб, бошқарувни самарали ривожлантириб ва бошқариб бўлмайди. Замонавий бошқариш маърифатли, ўз касбини кенг ва чуқур эгаллаган, юқори ахлоқ меъёрларига амал қилишни талаб этади.

Маърифат ва ахлоқ орқали кишиларнинг иқтисодий ва ижтимоий муносабатларини, хулқини ўрганиш ва ташкилот фаолиятида қўллаш катта муваффақиятларга олиб келади. Бошқарув жараёнини мақсадга мувофиқ равишда амалга ошириш учун раҳбар идора қилишнинг қайси бўғинида бўлишидан қатъий назар муайян қобилиятга эга бўлиши керак. Раҳбар ўзининг шахсий фазилатлари, мустақкам характери кучли иродаси, барқарор ҳиссиёти нарсаларга ва жабҳаларга нисбатан махсус қобилиятлари билан ходимларни бошқара олади. Фан ва техниканинг ривожини одамларда онглилик даражасининг юксак кўсаткичи ижтимоий тажрибаларнинг таъсирчан кучи ҳисобланади. Кишиларнинг муайян билимларга эга эканлиги раҳбарнинг комил инсон камолати поғонасига кўтарилишини тақоза этади. Раҳбардан иродавийлик хусусияти талаб қилинади.

Раҳбарда иродавий куч-қувватнинг мужассамлашуви, бошқарув фаолиятининг машаққатлари, заҳматлари, мақсадга интилиши ва собитқадамлилик, ташаббус, мустақиллик, ижодийлик, саботлилик, қатъийлик, принципааллик, вазминлик, эсанкирамаслик, ўзини қўлга ола билишлик, интизомийлик, ўзини ўзи удалаш, ўзига ўзи буйруқ бериш, ўз кучига ишониш, ўзини сафарбар қила олишлик каби фазилатларни мавжудлиги раҳбарнинг муваффақиятидир.

Раҳбарлик фаолияти ва раҳбар шахси учун иродавий сифатлар жуда муҳим аҳамиятга эга, уни бошқариш эса психологик тўсиқлар, вазиятлар, низоли ҳолатларни енгиш манбаи бўлиб ҳисобланади. Раҳбар кадрнинг нуфузи барқарор ирода субъекти эканлигини ҳар қайси ҳаракат ва фаолиятида намойиш қилишда ўз ифодасини топади, уни комилликка йўналтиришга имкон яратади.

Э.П.Тонконогая[123] томонидан ўйланган, таклиф қилинган моделга мувофиқ, таълим ташкилоти раҳбари кенг ижтимоий ва маданий дунёқарашга, мослашувчан фикрлашга эга юқори компетентли раҳбар; демократик ва янги бошқарув услубига эга бўлган гуманист; жамоада ижодий муҳит ва қулай психологик муҳит яратишга қодир, ностандарт бошқарув қарорларини қабул қилиши, унга ишониб топширилган болаларни ўқитиш ва ўқитишнинг юқори сифати ва самарадорлигига эришишга қодир.

Олимларнинг фикрларини хулоса қилиб, бошқарув компетенцияларини белгилайдиган бир қатор умумий қоидаларни аниқлаш мумкин:

- раҳбарнинг шахсий ва касбий фазилятлари билан белгиланадиган умумий тавсиф;

- интеллектуал, ҳиссий ва кучли иродали таълим, инсоннинг ҳаётий позицияси билан боғлиқ, инсонпарвар, демократик, шахсга йўналганлик;

- касбий фаолият, бошқарув назарияси ва амалиёти, кенг ижтимоий ва маданий фикрлар, фикрлашнинг мослашувчанлиги соҳасидаги фундаментал билимлар;

- жамоа билан ишлаш, конструктив шахслараро муносабатларни қуриш, мулоқот қобилиятига эга бўлиш малакаси;

- ҳаракатчан бўлиш, одатий ва одатий бўлмаган вазиятларда тез қарор қабул қилиш, янгиликка тайёргарлик.

Таълим ташкилоти раҳбарининг бошқарув компетентлигининг таркибини белгилайдиган турли хил позициялар мавжуд. Таълим ташкилоти раҳбарининг бошқарув компетентлигининг асосий таркибий қисмлари қуйидагилардан иборат: мотивацион, когнитив ва технологик. Бунда мотивацион жиҳат – тадқиқотчилик компетентлигининг касбий фаолиятдаги ўзига хослиги ва муҳимлигини намоён бўлиши, когнитив жиҳати – илмий маълумотларни ўрганиш ва тадқиқотчилик вазифаларини бажариш учун зарур бўлган билимларни ўзлаштириш ҳамда унинг натижаларини касбий фаолиятига татбиқ этиш, технологик жиҳати эса - қўйилган вазифаларни бажариш учун зарур бўладиган кўникма ва малакалар йиғиндиси сифатида изоҳланади.

Фойданилган адабиётлар:

1. Э.Ғозиев. “Бошқарувнинг педагогик-психологик харитаси” номли йўриқнома.

2. Р.М.Махмудов, А.А.Бекназаров. Ички ишлар идораларида Бошқарув психологияси.

3. Холбеков А, Махмудов И, Рашидов Ф. Замонавий раҳбар: маънавий фазилятлар, психологик қиёфа, касбий маҳорат-Т 2008.й.

4. Платонов Ю.Р. Социальная психология –СПб-2006

5. М.Намдамова. Maktabgacha ta'lim tashkilotida mehnat qonunchiligi xujjatlari bilan ishlash O'quv qo'llanma, Toshkent "Ozkitobsavdo" 2020, ISBN 978-9943-6297-6-9, UO'K: 373,2:37,9 (075), KBK: 74. 102 ya7, 204 bet

6. М.Намдамова. Sbornik nauchnix statey po itogam raboti, Mejdunarodnogo nauchnogo foruma tom 2, «Nauka i innovatsii - sovremenniye konsepsii». Data rassilki sbornika – 18 oktabrya 2019 g, Moskva 2019, 46-50 st

7. M.Hamdama Metodicheskaya rabota v doshkolnix obrazovatelnix uchrejdeniy kak faktor povisheniya kachestva obrazovaniya«Problemi ta perspektivi rozvitku suchasno nauki v krainax Evropi ta azii», XX MIJNARODNA NAUKOVO-PRAKTICHNA INTERNET- KONFERENSIYA- 31 JOVTNYA 2019, ZBIRNIK NAUKOVIX PRATS,Pereyaslav-Xmelnitskiy-2019, 67-70 st

8. Митин А. Н. Культура управления: учеб.пособие / А. Н. Митин; Урал. акад. гос. службы. — Екатеринбург: 2000.

9. M.Hamdama Kindergarten, as the first compotent, rural education systems European journal of Research and Reelection in educational Sciences, Volume 7 November 12, 2019 Part VI, ISSN 2056-5852, Progressive Academic Publishing, UK 5, 276-281 p

10. M.Hamdama Organizations of management in the system of preschool educations on the basis of pedagogical partnership University Press Journals, University Park, Notingham NG7 2rd, United Kingdom, November 28, 2019, ISSN: 0013-5984,E-ISSN: 1554-8279

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FEATURES OF THE COURSE OF COVID-19 IN
PATIENTS WITH ACUTE KIDNEY INJURY

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Resume. Introduction. In the modern era, COVID-19 is the biggest challenge facing doctors and scientists round the world. SARS-CoV-2 is a multisystem infection that is not limited to lung damage and has an immuno-mediated effect of negative effects on organs and systems, including the kidneys. To date, there is no precise understanding of the pathogenesis of nephrological disorders in patients with COVID-19. Patients with chronic disease kidney diseases (CKD) are a group of particularly high risk of COVID-19 infection and high mortality in the development of the disease. **OBJECTIVE:** to evaluate the features of the course of the new coronavirus infection (COVID-19) in patients with acute kidney injury and terminal renal insufficiency. **PATIENTS AND METHODS.** Clinical, laboratory, and instrumental parameters were studied in 119 patients (67 men and 52 women) diagnosed with COVID-19. The average age of the patients was 63.1 ± 1.7 years. All patients were divided into two groups: group 1 – patients with CKD and HD, Group 2 – patients with newly diagnosed kidney damage due to coronavirus infection (COVID-19). Statistical data analysis was performed using the IBM SPSS Statistics 21.0 software package (USA) (Russified version). results. As a result of the study, it was found that in the clinical picture of patients with COVID-19, suffering from CKD and undergoing hemodialysis, was 2 times more likely to have a symptom such as myalgia, was the percentage of arterial blood hemoglobin saturation with oxygen (SaO₂,%) is significantly lower compared with patients with newly diagnosed kidney damage on the background of infection. The duration of the temperature reaction during the disease was 5 times longer than in patients without CKD. Although the incidence of lung damage in patients of both groups was identical, mortality was significantly higher in the group of patients with CKD. **CONCLUSION.** In the patients we examined, proteinuria, an increase in the level of nitrogenous metabolites, as well as D-dimers in both groups were associated with increased mortality. Mortality in patients with CKD and HD was several times higher than in those without pathology of the urinary system. The severity of the patients' condition was primarily due to the symptoms of damage to the respiratory system, but the degree of renal dysfunction is undoubtedly an important prognostic value. Thus, monitoring the condition of individual nephron structures in patients with COVID-19 is of great importance, and emergency nephroprotective measures may be crucial in combating the cytokine storm.

Keywords: coronavirus infection, COVID-19, chronic kidney disease, glomerular filtration rate, creatinine, course features

Introduction: Patients with CKD are a group of particularly high risk of COVID-19 infection and high mortality in the development of the disease. This is due to the fact that the cause of CKD in older age groups is often the main population diseases (diabetes mellitus, hypertension, obesity, atherosclerosis), which contributes to high morbidity and mortality from COVID-19 [1]. Among patients with CKD, the greatest difficulties are caused by patients receiving dialysis treatment. Isolation is impossible for them, among them a significant proportion of weakened patients with a high Charlson index, as well as people over 60 years of age [2]. According to world data, 59% of patients with a confirmed diagnosis of COVID-19 had changes in urine tests in the form of erythrocyturia and proteinuria, which indicated kidney damage even in those who had not previously suffered from diseases of the urinary system [3]. How exactly does SARS-CoV-2 damage the kidneys? The exact answer to this question has not yet been found. New information is emerging daily about the effects of covid infection on various organs and structures of the body, however, unambiguous there are no conclusions about how the kidneys are affected. To date, there are several theories that explain the pathogenic effects of the virus.

It is already known that SARS-CoV-2 is tropic to cells having angiotensin converting enzyme (ACE2) receptors. The kidneys have a large amount of ACE2 - receptors and may be a direct target for coronavirus. This fact is confirmed by studies when, during electron microscopy of the kidney tissue of patients who died from coronavirus, viral particles were detected, indicating a direct damaging effect [4, 5]. In any infection, regardless of the nature of the pathogen, activation of the systemic inflammatory response. COVID-19 is often accompanied by an overreaction on the part of the immune system, in which a systemic hyperinflammatory response ("cytokine storm") develops, leading to kidney damage in addition to direct exposure to the virus [6, 7]. Due to the peculiarities of penetration into the body, SARS-CoV-2 primarily affects the lungs, which leads to the development of respiratory failure. Hence, the third component of damage to the renal parenchyma is hypoxia. Finally, a distinctive feature of this variant of coronavirus is the rapid activation of hemostasis with the development of thrombovaccinosis in small-caliber vessels of vital organs [8]. COVID-19 can be considered as a virus-mediated NETosis model, which characterizes the close relationship of biological processes such as inflammation and thrombosis. NETosis is understood as a specific variant of the programmed cell death of neutrophils. In contrast to apoptosis, neutrophils secrete so-called extracellular neutrophil traps (Neutrophil extracellular traps, NET), which can play an important role in the development of immunothrombosis. Separate series of papers have been published in which patients with COVID-19 and massive thrombosis showed an increase in antibody titers to phospholipids. This provokes pronounced endothelial dysfunction

and induction of platelet aggregation (the endothelium also carries APF2 receptors and is a target for the SARS-CoV-2 virus) [9]. The blockade of microcirculation and its irreversible nature often determine the outcome of the disease. And, in addition, it should not be forgotten that the methods of treatment of severe COVID-19 themselves can increase the risk of kidney damage formation by both prerenal and renal mechanisms. In this regard, it is possible to mention the difficulties of adequately assessing the water status of patients with an extremely high workload on medical personnel. In addition, some drugs that are used in the treatment of coronavirus infection are nephrotoxic [10, 11]. Thus, the issue of the effect of COVID-19 on the structure and function of the kidneys is currently multicomponent and requires a more in-depth and detailed study.

PATIENTS AND METHODS. The study included 119 patients diagnosed with COVID-19. Among them, men made up 67 people, women – 52 people. The average age of the patients was 63.1 ± 1.7 years. The study was conducted on the basis of the departments of polyclinic therapy and infectious diseases with a course of tuberculosis Stavropol State Medical University in GBUZ IC "City Clinical Hospital No. 2", "Regional Clinical Infectious Diseases Hospital" and "Dialysis Center" in Kislovodsk. The duration of the study is 12 months (from March 2020 to March 2021). All patients underwent general analysis studies blood, urine, biochemical analyses (creatinine, urea, glucose, CRP, D-dimer, procalcitonin, fibrinogen), the calculated glomerular filtration rate (eGFR) according to the formulas CKD-EPI (Chronic Kidney Disease Epidemiology Collaboration), performed computed tomography of the lungs. Blood was taken from the cubital vein in the morning on an empty stomach. The concentration of creatinine, urea and glucose was determined by colorimetric method on an automatic biochemical analyzer from Mindray BS-380 (China). All patients were divided into 2 groups: 39 patients – 16 women and 23 men, average age 63 ± 1.9 years with a previously established diagnosis of CKD, who were on programmed hemodialysis (HD). The average hospital stay was 11.5 ± 0.7 days. The 2nd group included 80 patients with newly diagnosed kidney damage on the background of current coronavirus infection (AKI). There were 44 men and 36 women, with an average age of 62.3 ± 1.7 years. The duration of hospital stay was 10.9 ± 0.7 days. Statistical data analysis was carried out using the package of applied statistical.

Results: The results of the analysis showed that the most common concomitant diseases in patients with SARSCoV-2 coronavirus infection in the group of patients with CKD were pathology of the cardiovascular system, hypertension, and less often diabetes mellitus (Fig. 1). In the group of patients who had not previously suffered from kidney disease, obesity, hypertension. Of the clinical manifestations dry cough was common in both groups: in the group of patients without CKD – in $60.4 \pm 0.9\%$ and with CKD – in $79.5 \pm 0.9\%$ of cases. Such a symptom as myalgia was noted 2 times more often by patients of the HD group: 66 and 32.5 % accordingly, $p < 0.05$. The

percentage of arterial hemoglobin oxygen saturation (SaO₂, %) in the blood of patients with GL was lower: 86.4±0.14 and 91.1±0.7, respectively, p<0.05. During the study, an interesting fact was discovered: the duration of the temperature reaction is 38.5 ° C and higher in patients with AKI It was on average almost 5 times more (4.7±0.4 days) than in HD patients (1.1± 0.2 days). programs "SPSS Statistics 21.0" (USA) (Russified version). The results are presented as an arithmetic mean ± the error of the average. The correlation analysis was performed using Spearman's rank correlation coefficient. The statistical significance of the differences between the two The averages were determined using the Student's t-test; the frequencies were determined using Pearson's χ^2 –test. The null statistical hypothesis of the absence of differences and connections was rejected at p<0.05. It was also noted that in all patients included in the study, the presence of viral pneumonia was confirmed during computed tomography (Fig. 2). The X-ray picture of CT2 (25-50% of the lungs were affected) and CT3 (50-75% of the lungs were affected) prevailed in the group of patients with AKI for the first time, although it was not statistically significant. The percentage of patients with minimal lung damage (CT 1, less than 25% of the lungs were affected) and maximum degree (CT4, more than 75% of the lungs were affected) in both groups was the same. However, mortality was significantly higher (p<0.05) in the HD group and accounted for more than 50% of all patients. It should be noted that all deceased patients received respiratory support on ventilators. There were no survivors. By conducting a comparative analysis of laboratory parameters in blood serum, we were able to establish that the main studied parameters (leukocytes, neutrophil-leukocyte index, ESR, CRP, fibrinogen, D-dimers, procalcitonin) were elevated in both study groups in the same degree, there were no significant differences. The neutrophil-leukocyte index in all patients in both groups was below 10, which means indicates the viral nature of the lesion. Creatinine levels in both groups did not depend on either saturation or severity of lung damage. It was noted that all patients with AKI and COVID-19 proteinuria was noted. A direct dependence of proteinuria on concentration is also shown D-dimers (Rs=0.456; p<0.05) and procalcitonin (Rs=0.411; p<0.05) in the blood of patients of both groups. The correlation of D-dimers and clinical outcome was direct and quite strong (p=0.559, p <0.001). The average creatinine level in patients of both groups differed: in the HD group – 561.3±49.1 mmol/l, in the AKI group – 211.2±40.3 mmol/l.

Discussion: COVID-19 is one of the biggest challenges facing doctors and scientists around the world in the modern era. SARS-CoV-2 is a multisystem infection. In patients with COVID-19, the most common concomitant diseases were: in the group of patients with CKD is diabetes mellitus, arterial hypertension and cardiological pathology, which is confirmed by previous studies, in patients with newly diagnosed kidney pathology – obesity and arterial hypertension. During the analysis, it turned out that with proteinuria, azotemia, and the level of D-dimers are associated with increased

mortality. In addition, mortality in patients with AKI and HD was several times higher than in those without pre-existing kidney disease. An interesting feature of the flow was noted in the study COVID-19 in the group of patients with CKD and HD we observed: the disease proceeded without typical symptoms – prolonged fever, cough and weakness, and the diagnosis was made based on computed tomography data. Lung damage by SARS-CoV-2 infection in the studied There were no significant differences in the groups. At the same time, mortality was significantly higher in the group of patients with HD, in whom the fatal outcome developed on average on the 9th day. A comparative retrospective analysis of the clinical, laboratory and instrumental data obtained during our study substantiates the main cause of death in patients with coronavirus infection as multiple organ failure. In our study, we confirmed previously available information that independent predictors of the severity of renal pathology, the development of AKI and fatal The outcome in patients infected with SARS-CoV-2 may be: old age, diabetes mellitus, hypertension, cardiovascular diseases, artificial lung ventilation, higher baseline serum creatinine levels.

Conclusion: The clinical manifestations of COVID-19 are mainly represented by symptoms of damage to the respiratory system, but neurological manifestations and/or complications should be given special attention. Their presence is associated with a high risk of severe disease and mortality.

Literature:

1. Ахмеджанова Н. И. и др. Оценка функционального состояния почек при ренальных осложнениях у детей в период пандемии COVID-19: обсервационное когортное ретроспективное клиническое исследование //Кубанский научный медицинский вестник. – 2023. – Т. 30. – №. 3. – С. 25-33
2. Аминов З. З. и др. Влияние выбросов аммофосного производства на состояние здоровья детей и подростков //Academy. – 2019. – №. 10 (49). – С. 57-60.
3. Аскарлова Н., Мамасолиева Ш., Гаррарова Г. Клиническая характеристика психо-неврологического состояния часто болеющих детей дошкольного возраста //Общество и инновации. – 2020. – Т. 1. – №. 2/S. – С. 378-385.
4. Длин В.В., Игнатова М.С., Османов И.М. и др. Дисметаболические нефропатии у детей.// Российский вестник перинатологии и педиатрии -2012, №5, стр.36-42.
5. Гаппарова Г. Н., Ахмеджанова Н. И. COVID-19 PANDEMIYASI DAVRIDA BOLALARDA PIELONEFRITNING KLINIK-LABORATOR XUSUSIYATI, DIAGNOSTIKASI VA DAVOLASH //ЖУРНАЛ РЕПРОДУКТИВНОГО ЗДОРОВЬЯ И УРО-НЕФРОЛОГИЧЕСКИХ ИССЛЕДОВАНИЙ. – 2022. – Т. 3. – №. 4.
6. Гаппарова Г. Н. Инфекции мочевыводящих путей у детей, пиелонефрит: диагностика и лечение //Проблемы биологии и медицины. – 2022.

7. Мамасолиева Ш. А. и др. Оценка психосоматическое здоровье и психосоматическое заболевание профессорско-преподавательского состава вузов //Научный электронный журнал Меридиан. – 2020. – №. 6. – С. 78-80.
8. Тухтаров Б. Э., Абдумуминова Р. Н. Гули Нурмуминовна Гаппарова ИНСОН САЛОМАТЛИГИГА ТАЪСИР ЭТУВЧИ АГРОФАКТОРЛАРНИНГ ЭКОЛОГО-ГИГИЕНИК ЖИХАТЛАРИНИ ТАДҚИҚ ЭТИШ, SCIENTIFIC PROGRESS VOLUME 2 | ISSUE 4 | 2021 ISSN: 2181-1601, P 80-86 file //C:/Users/admin/Downloads/inson-salomatligiga-tasiretuvchi-agrofaktorlarning-ekologo-gigienik-zhi-atlarini-tad-i-etish. pdf.
9. Юлдошева, Шахноза авазовна, and Шохиста Абдугаппаровна Мамасолиева. "Sog 'lom turmush tarzini oliy ta'lim muassasasi talabalari o 'rtasida shakllantirishning o 'ziga xos xususiyatlari o 'rganish." журнал биомедицины и практики 7 (2022).
10. Мамасолиева Ш. А., Болгаев А. Б., Саидова Ф. С. Обобщение теоретических положений по оценке социально-экономической эффективности медицинских услуг и их качества //Молодой ученый. – 2020. – №. 4. – С. 199-203.
11. Мамасолиева Ш. Аҳолига кўрсатилаётган тиббий хизматларнинг ижтимоий-иктисодий механизми ташкилий жиҳатлари //Involta Scientific Journal. – 2022. – Т. 1. – №. 4. – С. 419-428.
12. Мамасолиева С.А., Каримов А.А. НАУЧНЫЕ АСПЕКТЫ ФОРМИРОВАНИЯ СОЦИАЛЬНО-ЭКОНОМИЧЕСКОГО МЕХАНИЗМА МЕДИЦИНСКОГО ОБСЛУЖИВАНИЯ //Восточный ренессанс: инновационные, образовательные, естественные и социальные науки. – 2022. – Т. 2. – №. 3. – С. 484-490.
13. Мамасолиева Ш. А. и др. Оценка психосоматическое здоровье и психосоматическое заболевание профессорско-преподавательского состава вузов //Научный электронный журнал Меридиан. – 2020. – №. 6. – С. 78-80.
14. Мадаханов А. С., Мамасолиева Ш. А. Инновационные подходы к использованию рекреационных ресурсов в малых городах //Сучасні детермінанти розвитку бізнес-процесів в Україні. – Київський національний університет технологій та дизайну, 2019.
15. Мурадова Э. В. и др. НЕСПЕЦИФИЧЕСКАЯ РЕЗИСТЕНТНОСТЬ У ДЕТЕЙ С БАКТЕРИАЛЬНОЙ ПНЕВМОНИЕЙ, ОСЛОЖНЕННОЙ РАЕСІЛОМУСЕС ИНФЕКЦИЕЙ //Наука и мир. – 2019. – Т. 3. – №. 5. – С. 58-61.
16. Gapparova G. N. Clinical and laboratory diagnosis of uricosuric nephropathy in children. – 2022.
17. Gapparova G. N. Covid-19 Pandemiyasi Davrida Bollard Pielonefritning Kliniko-Laborator Xususiyatlari, Diagnostikasi //Texas Journal of Multidisciplinary Studies. – 2022. – Т. 4. – С. 127-129.
18. Gapparova G., Akhmedjanova N. CLINICAL AND LABORATORY CHARACTERISTICS, DIAGNOSIS OF PYELONEPHRITIS IN CHILDREN UNDER COVID-19 PANDEMIC CONDITIONS //Theoretical aspects in the formation of pedagogical sciences. – 2022. – Т. 1. – №. 6. – С. 114-114.

19. Gapparova G., Akhmedjanova N. CLINICAL AND LABORATORY FEATURES, DIAGNOSIS AND TREATMENT OF PYELONEPHRITIS IN CHILDREN DURING THE COVID-19 PANDEMIC //Академические исследования в современной науке. – 2022. – Т. 1. – №. 17. – С. 186-187.
20. Nurmuminovna G. G., Abdurakhmanovna U. N. CLINICAL AND LABORATORY FEATURES OF NEPHROPATHY IN CHILDREN WITH DIABETES MELLITUS //Open Access Repository. – 2023. – Т. 9. – №. 2. – С. 116-122.
21. Nurmuminovna G. G. In the post period of covid-19 diseasespecific clinical-laboratory properties and diagnosis of pyelonephritis in children //ACADEMICIA: An International Multidisciplinary Research Journal. – 2022. – Т. 12. – №. 4. – С. 55-58.
22. Zhurakulovna R. D., Shomuratovna B. R., Narmuminovna G. G. HYGIENIC RECOMMENDATIONS FOR THE PREVENTION OF SCHOOL MYOPIA AND OTHER VISUAL IMPAIRMENTS IN CHILDREN OF PRIMARY SCHOOL AGE //American Journal of Interdisciplinary Research and Development. – 2022. – Т. 6. – С. 29-38.
23. Eshnazarovich T. B., Norbuvaevna A. R., Nurmuminovna G. G. Research of ecological and hygiene aspects of agrofaktors affecting human health. – 2021.
24. Norbuvaevna A. R., Nurmuminovna G. G., Rukhsora M. HYGIENIC ASSESSMENT OF THE EFFECT OF NITRATES ON HUMAN HEALTH //Archive of Conferences. – 2021. – С. 24-26.
25. Nurmuminovna, Gapparova Guli. "Assessment of Partial Renal Function in Children with Pyelonephritis During the Covid-19 Pandemic." *Eurasian Research Bulletin* 17 (2023): 220-228.
26. . Nurmuminovna G. G. LABORATORY FEATURES OF URATE NEPHROPATHY IN CHILDREN //Western European Journal of Linguistics and Education. – 2024. – Т. 2. – №. 2. – С. 40-48.
27. Gapparova G. N., Abdugapparovna M. S. BOLALARDA URIKOZURIK NEFROPATIYANI KLINIKO-LABORATOR DIAGNOSTIKASI //Лучшие интеллектуальные исследования. – 2023. – Т. 5. – №. 1. – С. 13-19.
28. Nurmuminovna G. G. CLINICAL AND LABORATORY FEATURES, DIAGNOSIS AND TREATMENT OF PYELONEPHRITIS IN CHILDREN DURING THE COVID-19 PANDEMIC //JOURNAL OF BIOMEDICINE AND PRACTICE. – 2023. – Т. 8. – №. 2.
29. Nurmuminovna G. G., Ismailovna A. N. Improved Treatment Of Pyelonephritis In Children During The Covid-19 Pandemic //Eurasian Medical Research Periodical. – 2023. – Т. 19. – С. 73-80.
30. Nurmuminovna G. G. PYELONEPHRITIS IN CHILDREN: DIAGNOSIS AND TREATMENT //Web of Scholars: Multidimensional Research Journal. – 2022. – Т. 1. – №. 6. – С. 247-252.

COMPREHENSIVE IMMUNOMODULATORY TREATMENT IN CHILDREN WITH CHRONIC PYELONEPHRITIS*Sidikova Maryam Amangeldiyevna**Samarkand State Medical University, Republic of Uzbekistan, Samarkand.*

Annotation. *The purpose of the study.* To study the effect of immunomodulatory therapy on clinical parameters and the state of immunological reactivity in children with chronic pyelonephritis. **Material and methods.** 100 children aged 6-14 years with a recurrent course of chronic pyelonephritis (CP) were under observation. The first group of patients with CP (40 patients) received complex conventional therapy, the second group of patients with CP (30 patients) received complex treatment in combination with courses of polyoxidonium injections, the third group of patients with CP (30 patients) received complex treatment in combination with courses of injections imunofan. Clinical parameters were studied in patients, the content of populations and subpopulations of lymphocytes in the blood, immunoglobulins and circulating immune complexes in blood serum, phagocytosis parameters, and cytokine content in blood serum were studied in the active stage of the disease, the stages of partial and complete clinical and laboratory remission. **Results.** The first group of patients with CP who received complex conventional therapy experienced complete but short-term clinical and laboratory remission, during during which changes in many parameters of immunological reactivity were maintained. In the second and third groups of patients with CP who received complex treatment in combination with courses of injections of polyoxidonium and imunofan, the onset of prolonged complete clinical and laboratory remission was noted, during which normalization of immunological reactivity was recorded.

Key words: children, chronic pyelonephritis, immunological reactivity, immunomodulatory therapy, clinical and laboratory remission.

Introduction: Therapeutic measures for pyelonephritis in children are aimed at solving the following tasks: 1) elimination of the microbial-inflammatory process in the kidneys and urinary tract; 2) reduction of intoxication with high activity of the inflammatory process; 3) normalization of urodynamics in the urinary system; 4) normalization of immunological reactivity and stimulation of regenerative processes; 5) prevention of relapses of the disease. In the pathogenesis of pyelonephritis, an important role is assigned to immune disorders that accompany the course of the disease and affect the progression of the pathological process. In this regard, it is reasonable for patients to undergo courses of immunocorrective therapy, which helps to reduce the active period of pyelonephritis and reduces the risk of recurrence of the

disease [1, 12,14]. This paper presents the data obtained by us when we included in the complex therapy of children with chronic pyelonephritis courses of treatment with domestic immunomodulators of a new generation (polyoxidonium and imunophan) with anti-inflammatory, immunocorrective, membrane stabilizing and antioxidant effects.

The purpose of the study. To determine the effectiveness of including courses of treatment with new generation immunomodulators (polycosidonium and imunofan) in the complex therapy of children with chronic pyelonephritis. Research materials and methods. 100 children aged 6-14 years old with primary chronic pyelonephritis (CP) with preserved kidney function were under observation at the Kirov Regional Children's Clinical Hospital, which were divided into three groups depending on the therapy. The first group of patients with chronic pyelonephritis (40 patients) received complex conventional therapy: a diet with a slight restriction of protein and sodium chloride, the exclusion of spicy and salty dishes from the diet, mineral water "Nizhne-Ivinskaya" or "Borjomi" for 2 weeks, detoxification therapy, antibacterial therapy (amoxiclav in combination with cephalexin for 2 weeks, followed by the appointment of furagin in alternation with nitroxoline (for 2 weeks) for 6 months), drugs that eliminate secondary mitochondrial insufficiency (kudesan, riboflavin, L-carnitine, dimesphone), plant adaptogens (tincture of Eleutherococcus or ginseng root for 1 month). The second group of patients with chronic pyelonephritis (30 patients), along with the above-mentioned complex therapy, were prescribed polyoxidonium injections from the second day of hospital stay (at a dose of 0.1 mg / kg on water for injection, intramuscularly, two days later on the third, only 5 injections), and the third group of patients with chronic pyelonephritis (30 patients) – injections of imunofan (0.005% solution at the rate of 0.1 ml per year of life, but not more than 1.0 ml, subcutaneously, two days later on the third, only 5 injections). Repeated courses of injections of polyoxidonium and imunophan were prescribed to patients of the second and third groups 3 months after discharge from the hospital. They did not experience any complications or adverse reactions during treatment with polyoxidonium and imunophan. To assess the state of immunological reactivity in patients with chronic pyelonephritis in the first 1-2 days of follow-up (active stage of the disease), as well as in the stages of partial and complete. In laboratory remission, the content of populations and subpopulations of lymphocytes (CD3-1, CD4-1, CD8-1, CD20-1) in the blood, the content of immunoglobulins (Ig) G, A, M and circulating immune complexes (CIC) in serum were determined, indicators of phagocytic activity of neutrophils (FAN), phagocytic index (PHI) and the nitrosine tetrazolium reduction test (NST test) in the cytoplasm of neutrophils, the content of interferon-alpha (IFN- α), interleukin-1beta (IL-1 β) and tumor necrosis factor-alpha (TNF- α) in blood serum. The results of these studies in patients with chronic pyelonephritis were compared with data obtained from 183 practically healthy children of the appropriate age living in Kirov and the Kirov

region of the Russian Federation. To determine the content of CD3-, CD4-, CD8- and CD20-lymphocytes in the blood of patients with chronic pyelonephritis, an indirect immunofluorescence reaction (RNIF) was used, where immunophenotyping is performed using sets of monoclonal antibodies LT3, LT4, LT8 and LT20, manufactured by Nizhny Novgorod NPC "Drug" LLC. The research results were expressed in percentages and absolute figures. The content of immunoglobulins of classes G, A, M in the blood serum of patients with chronic pyelonephritis was determined by enzyme immunoassay (ELISA) in accordance with the instructions for the Immunoscreen-G,A,M ELISA-Best reagent kit (Vector-Best CJSC, Novosibirsk); the results were expressed in g/L. The content of circulating immune complexes in the blood serum of patients with chronic pyelonephritis was determined by precipitation in a solution of polyethylene glycol.

The content of interferon-alpha, interleukin-1beta and tumor necrosis factor-alpha in serum in patients with chronic pyelonephritis was determined by enzyme immunoassay (ELISA) using reagent kits from Vector-Best CJSC (Novosibirsk); the results were expressed in pg/ml. The results obtained in the study of clinical and immunological parameters in patients with chronic pyelonephritis were processed by the method of variational statistics with the determination of the arithmetic mean (M), the mean square deviation (σ) and the mean square error (m), the coefficient of reliability of differences between the compared values (p) using the Student-Fisher table. The digital material was processed on a personal computer in the Microsoft Office Excel Mac 2011 application. The results of studies performed in groups of observed patients with chronic pyelonephritis were compared with each other and with the results of studies in practically healthy children of the control group.

Results and their discussion. In all observed children with chronic pyelonephritis, exacerbation of the microbial inflammatory process in the renal tissue was associated with acute respiratory disease. Upon admission to the hospital, they had clinical and laboratory signs of II-III degree of pyelonephritis activity. Patients complained of general weakness and malaise, increased fatigue, decreased appetite, headache, aching pain in the lumbar region, increasing at night time, frequent urination in small portions with the release of cloudy urine. On examination, all patients had pale skin and mucous membranes, 17% of patients had mild eyelid pasty in the morning, and 65% of patients had low nutrition. At admission to the hospital, 22% of patients had an increase in body temperature to 37.2-38 0C. In the active stage of the disease, tachycardia and muffled heart tones were noted in 80% of patients, an increase in blood pressure to 135/85 mmHg was detected in 11% of patients, and no significant changes were detected on the electrocardiogram. In all patients, there was a whitish-gray coating on the tongue, in 13% of patients the liver protruded from under the edge of the costal arch by 0.5-1 cm. All patients had pain during lumbar region shaking. In children with chronic pyelonephritis in the active stage of the disease, there was a

significant decrease in the number of red blood cells and a decrease in the level of hemoglobin in the blood, a decrease in color index, an increase in the total number of leukocytes, the absolute number of rod-shaped and segmented neutrophils, monocytes and eosinophils, a significant increase in ESR. Patients showed an acidic urine reaction, a significant increase in daily diuresis and a decrease in relative ISSN 2308-4804 were noted. Science and world. 2018. No. 11 (63). Vol. II. 50 urine density, small proteinuria, pronounced leukocyturia with a predominance of neutrophiluria, pronounced cylindruria (leukocyte, granular, hyaline cylinders in urine sediment), microhematuria, pathological bacteriuria (105-1012 microbial bodies in 1 ml of urine). In urine cultures, *Escherichia coli* was isolated in 77% of children with chronic pyelonephritis in the active stage of the disease, *Enterococcus* spp. in 10% of patients, *Staphylococcus* spp. in 5% of patients, and the microbial association *Escherichia coli* + *Staphylococcus* spp. in 8% of patients. In the active stage of the disease, patients showed a decrease in the level of total protein and albumins in blood serum, a decrease in the albumin/globulin index, and a significant decrease in glomerular filtration by endogenous creatinine clearance. Ultrasound examination of the observed patients with chronic pyelonephritis showed fragmentation of the pelvic echo signal, which is a sign of deformation of the cup-pelvic system, multiple small multi-amplitude echoes were recorded due to the presence of sclerotic changes in the parenchyma.

During excretory urography in patients with chronic pyelonephritis, asymmetry of damage to both kidneys was revealed in the form of a difference in the appearance of contrast medium in them, expansion of individual cups, the presence of deformed cups, asymmetry in the structure or size of cup cavities, contour interruption in the area of cups and necks of kidney cups. Renographic curves in patients with chronic pyelonephritis were characterized by a more gentle rise in the secretory phase, a late onset of excretion and a low rate of decrease in the excretory phase, asymmetry of secretory phase amplitudes on both sides, which is associated with varying degrees of damage to the right and left kidneys, an increase in the time to reach the peak of the renographic curve due to a violation of the tubular secretion process, as well as slowing down the excretion and outflow of urine from the kidney, associated with functional disorders of the urinary tract. In children with chronic pyelonephritis in the active stage of the disease, pronounced shifts in the parameters of immunological reactivity were noted (Table 1). Changes in the cellular link of immunity were manifested in patients in a decrease in the relative amount of CD3-1 ($p < 0.001$) with an increase in the absolute number of these cells ($p < 0.001$), a decrease in the relative amount of CD4-1 ($p < 0.001$) in the blood (Table 1), and the changes in the humoral link of immunity are in a decrease in the relative and absolute amount of CD20-1 ($p < 0.001$, $p < 0.001$) in the blood, a decrease in IgG ($p < 0.001$), an increase in IgM ($p < 0.001$) and CEC ($p < 0.001$) in blood serum (Table 1). However, in children with chronic pyelonephritis, the active stages of the disease (Table 1) showed signs of a decrease in nonspecific

antibacterial and antiviral resistance, manifested in a significant decrease in PHAN ($p<0.001$), PHI ($p<0.001$), HCT test ($p<0.001$), a decrease in IFN- ($p<0.001$) in blood serum, a pronounced increased content of proinflammatory cytokines (IL-1 and TNF-) in blood serum ($p<0,001$, $p<0,001$).

Table 1

Indicators of immunity and immunological reactivity in patients with CP (M m)

Indicators	Healthy children, n = 25	Patients with CP, active stage, n =100
CD3-L,%	54,20±0,64	47,67±2,12*
CD3-L,109/L	1,22±0,06	1,68±0,07*
CD4-L,%	48,20±1,34	38,11±1,77*
CD4-L,109/L	0,58±0,03	0,62±0,04
CD8-L,%	24,47±0,97	24,18±2,14
CD8-L,109/L	0,32±0,02	0,39±0,04
CD20-L,%	28,18±0,42	19,13±1,84*
CD20-L,109/L	0,65±0,02	0,37±0,02*
IgG,g/l	9,74±0,9	6,30±0,09*
IgA,g/l	1,12±0,07	1,17±0,07
IgM,g/l	1,18±0,04	1,67±0,04*

Note: "*" is $p<0.001$ compared to the indicators in practically healthy children.

Against the background of inpatient treatment, all observed children with chronic pyelonephritis showed a significant improvement in well-being, a decrease and disappearance of the main clinical symptoms of the disease. The length of stay of patients in the hospital was 13.4 0.4 days. When examining patients before discharge from the hospital, they were diagnosed with the onset of a stage of partial clinical laboratory remission, in which they did not complain, the general condition of the patients was satisfactory, no clinical symptoms, except for pallor of the skin and mucous membranes, were found in them, however, small shifts in clinical and laboratory parameters were noted. A month after discharge from the hospital, all observed children with chronic pyelonephritis had a stage of complete clinical and laboratory remission, during which

There were no clinical symptoms of the disease and normalization of clinical and laboratory parameters was noted. Studies have shown that in the first, second and third groups of patients with chronic pyelonephritis, ambiguous changes in the parameters of immunological reactivity were detected in the stages of partial and complete clinical and laboratory remission.

Table 2

The content of populations and subpopulations of lymphocytes in the blood, immunoglobulins and circulating immune complexes in serum in a group of patients with CP who received conventional therapy, in a group of patients with CP who received treatment in combination with polyoxidonium, and in a group of patients with CP who received treatment in combination with imunofan (M m)

Indicators	Healthy children, n = 25	Patients with Chronic pyelonephritis		
		the stage of complete clinical and laboratory remission		
		those who received conventional therapy, n=40	treated with polyoxidonium, n=30	treated with immunophane, n=30
CD3-L,%	54,20±0,64	50,75±1,59	55,28±1,32	57,05±1,42
CD3-L,109/L	1,22±0,06	1,24±0,04	1,24±0,07	1,27±0,11
CD4-L,%	48,20±1,34	42,71±1,56*	46,62±1,41	47,52±1,41
CD4-L,109/L	0,58±0,03	0,53±0,01	0,57±0,02	0,63±0,03
CD8-L,%	24,47±0,97	26,51±1,22	24,54±1,20	27,04±0,91
CD8-L,109/L	0,32±0,02	0,30±0,02	0,31±0,05	0,34±0,01
CD20-L,%	28,18±0,42	23,22±2,01*	28,42±1,51	26,32±1,51
CD20-L,109/L	0,65±0,02	0,62±0,04	0,69±0,05	0,70±0,07
IgG,g/l	9,74±0,9	7,14±0,10*	9,90±0,17	9,64±0,12
IgA,g/l	1,12±0,07	1,18±0,20	1,25±0,17	1,20±0,13
IgM,g/l	1,18±0,04	1,22±0,03	1,23±0,05	1,19±0,07

Note: "*" is $p < 0.001$ compared to the indicators in practically healthy children.

In the first group of patients with chronic pyelonephritis who received complex conventional therapy, at the stage of partial clinical and laboratory remission (Table 2), a decrease in the relative amount of CD3-L ($p < 0.001$) was noted with a slight increase in the absolute number of these cells ($p < 0.05$), a decrease in the relative amount of CD4-L ($p < 0.001$) and the relative amount of CD20-L ($p < 0.001$) in the blood.

At the stage of complete clinical and laboratory remission in the first group of patients with chronic pyelonephritis (Table 2), a relatively small decrease in the relative amount of CD4-1 ($p<0.02$) and the relative amount of CD20-1 ($p<0.05$) was detected in the absence of significant shifts in the content of other immunocompetent cells in the blood. In the second group of patients with chronic pyelonephritis who received complex treatment in combination with a course of polyoxidonium injections, in the stages of partial and complete clinical laboratory remission (Table 2), the content of populations and subpopulations of lymphocytes in the blood did not differ from the content of these cells in the blood of practically healthy children. In the third group of patients with chronic pyelonephritis who received complex treatment in combination with a course of imunofan injections, there were no significant changes in the content of populations and subpopulations of lymphocytes in the blood at the stage of partial clinical and laboratory remission (Table 2), and an increase in the relative amount of CD3-1 was noted at the stage of complete clinical and laboratory remission (Table 2) ($p<0.02$) in the absence of significant changes in the content of other immunocompetent cells in the blood. In the first group of patients with chronic pyelonephritis who received complex conventional therapy, at the stage of partial clinical and laboratory remission (Table 2), a decrease in IgG ($p<0.001$), an increase in IgM ($p<0.02$) and CEC ($p<0.001$) in serum was noted, and at the stage of complete clinical and laboratory remission (Table 2) – a decrease in IgG content ($p<0.001$) and a slight increase in the concentration of CEC ($p<0.05$) in blood serum. In the second group of patients with chronic pyelonephritis, who received complex treatment in combination with a course of polyoxidonium injections, in the stages of partial and complete after clinical and laboratory remission (Table 2), the content of IgG, IgA, IgM and CEC in blood serum did not differ significantly from these indicators in practically healthy children. In the third group of patients with chronic pyelonephritis, who received complex treatment in combination with a course of imunofan injections, there were also no significant changes in the content of IgG, IgA and IgM, and the concentration of CEC in blood serum in the stages of partial and complete clinical and laboratory remission.

Conclusion. In children with a recurrent course of primary chronic pyelonephritis with preserved renal function in the active stage of the disease, pronounced changes in the content of populations and subpopulations of lymphocytes in the blood, immunoglobulins and circulating immune complexes in the blood serum, phagocytosis and cytokine content in the blood serum are revealed. A group of patients with chronic pyelonephritis who received complex conventional therapy experienced complete but short-term clinical and laboratory remission, during which changes in the parameters of immunological reactivity persisted. The inclusion of two courses of injections of polyoxidonium and imunofan in the complex treatment of groups of patients with chronic pyelonephritis ensured the onset of prolonged complete clinical and laboratory

remission and normalization of immunological reactivity parameters. The results of clinical observations and special studies indicate high clinical, immunomodulatory and anti-relapse effects of complex treatment in combination with courses of injections of polyoxidonium and imunophan in children with chronic pyelonephritis.

Literature:

1. Ахмеджанова Н. И. и др. Оценка функционального состояния почек при ренальных осложнениях у детей в период пандемии COVID-19: обсервационное когортное ретроспективное клиническое исследование //Кубанский научный медицинский вестник. – 2023. – Т. 30. – №. 3. – С. 25-33
2. Аминов З. З. и др. Влияние выбросов аммофосного производства на состояние здоровья детей и подростков //Academy. – 2019. – №. 10 (49). – С. 57-60.
3. Аскарлова Н., Мамасолиева Ш., Гаррарова Г. Клиническая характеристика психо-неврологического состояния часто болеющих детей дошкольного возраста //Общество и инновации. – 2020. – Т. 1. – №. 2/S. – С. 378-385.
4. Длин В.В., Игнатова М.С., Османов И.М. и др. Дисметаболические нефропатии у детей.// Российский вестник перинатологии и педиатрии - 2012, №5, стр.36-42.
5. Гаппарова Г. Н., Ахмеджанова Н. И. COVID-19 PANDEMIYASI DAVRIDA BOLALARDA PIELONEFRITNING KLINIK-LABORATOR XUSUSIYATI, DIAGNOSTIKASI VA DAVOLASH //ЖУРНАЛ РЕПРОДУКТИВНОГО ЗДОРОВЬЯ И УРО-НЕФРОЛОГИЧЕСКИХ ИССЛЕДОВАНИЙ. – 2022. – Т. 3. – №. 4.
6. Гаппарова Г. Н. Инфекции мочевыводящих путей у детей, пиелонефрит: диагностика и лечение //Проблемы биологии и медицины. – 2022.
7. Мамасолиева Ш. А. и др. Оценка психосоматическое здоровье и психосоматическое заболевание профессорско-преподавательского состава вузов //Научный электронный журнал Меридиан. – 2020. – №. 6. – С. 78-80.
8. Тухтаров Б. Э., Абдумуминова Р. Н. Гули Нурмуминовна Гаппарова ИНСОН САЛОМАТЛИГИГА ТАЪСИР ЭТУВЧИ АГРОФАКТОРЛАРНИНГ ЭКОЛОГО-ГИГИЕНИК ЖИҲАТЛАРИНИ ТАДҚИҚ ЭТИШ, SCIENTIFIC PROGRESS VOLUME 2 | ISSUE 4 | 2021 ISSN: 2181-1601, P 80-86 file //C:/Users/admin/Downloads/inson-salomatligigatasiretuvchi-agrofaktorlarning-ekologo-gigienik-zhi-atlarini-tad-i-etish. pdf.
9. Юлдошева, Шахноза авазовна, and Шохиста Абдугаппаровна Мамасолиева. "Sog 'lom turmush tarzini oliy ta'lim muassasasi talabalari o 'rtasida shakllantirishning o 'ziga xos xususiyatlari o 'rganish." журнал биомедицины и практики 7 (2022).

10. Мамасолиева Ш. А., Болгаев А. Б., Саидова Ф. С. Обобщение теоретических положений по оценке социально-экономической эффективности медицинских услуг и их качества //Молодой ученый. – 2020. – №. 4. – С. 199-203.
11. Мамасолиева Ш. Аҳолига кўрсатилаётган тиббий хизматларнинг ижтимоий-иқтисодий механизми ташкилий жиҳатлари //Involta Scientific Journal. – 2022. – Т. 1. – №. 4. – С. 419-428.
12. Мамасолиева С.А., Каримов А.А. НАУЧНЫЕ АСПЕКТЫ ФОРМИРОВАНИЯ СОЦИАЛЬНО-ЭКОНОМИЧЕСКОГО МЕХАНИЗМА МЕДИЦИНСКОГО ОБСЛУЖИВАНИЯ //Восточный ренессанс: инновационные, образовательные, естественные и социальные науки. – 2022. – Т. 2. – №. 3. – С. 484-490.
13. Мамасолиева Ш. А. и др. Оценка психосоматическое здоровье и психосоматическое заболевание профессорско-преподавательского состава вузов //Научный электронный журнал Меридиан. – 2020. – №. 6. – С. 78-80.
14. Мадаханов А. С., Мамасолиева Ш. А. Инновационные подходы к использованию рекреационных ресурсов в малых городах //Сучасні детермінанти розвитку бізнес-процесів в Україні. – Київський національний університет технологій та дизайну, 2019.
15. Мурадова Э. В. и др. НЕСПЕЦИФИЧЕСКАЯ РЕЗИСТЕНТНОСТЬ У ДЕТЕЙ С БАКТЕРИАЛЬНОЙ ПНЕВМОНИЕЙ, ОСЛОЖНЕННОЙ РАЕСІЛОМУСЕС ИНФЕКЦИЕЙ //Наука и мир. – 2019. – Т. 3. – №. 5. – С. 58-61.
16. Gapparova G. N. Clinical and laboratory diagnosis of uricosuric nephropathy in children. – 2022.
17. Gapparova G. N. Covid-19 Pandemiyasi Davrida Bollard Pielonefritning Kliniko-Laborator Xususiyatlari, Diagnostikasi //Texas Journal of Multidisciplinary Studies. – 2022. – Т. 4. – С. 127-129.
18. Gapparova G., Akhmedjanova N. CLINICAL AND LABORATORY CHARACTERISTICS, DIAGNOSIS OF PYELONEPHRITIS IN CHILDREN UNDER COVID-19 PANDEMIC CONDITIONS //Theoretical aspects in the formation of pedagogical sciences. – 2022. – Т. 1. – №. 6. – С. 114-114.
19. Gapparova G., Akhmedjanova N. CLINICAL AND LABORATORY FEATURES, DIAGNOSIS AND TREATMENT OF PYELONEPHRITIS IN CHILDREN DURING THE COVID-19 PANDEMIC //Академические исследования в современной науке. – 2022. – Т. 1. – №. 17. – С. 186-187.
20. Nurmuminovna G. G., Abdurakhmanovna U. N. CLINICAL AND LABORATORY FEATURES OF NEPHROPATHY IN CHILDREN WITH DIABETES MELLITUS //Open Access Repository. – 2023. – Т. 9. – №. 2. – С. 116-122.

21. Nurmuminovna G. G. In the post period of covid-19 diseasespecific clinical-laboratory properties and diagnosis of pyelonephritis in children //ACADEMICIA: An International Multidisciplinary Research Journal. – 2022. – T. 12. – №. 4. – C. 55-58.
22. Zhurakulovna R. D., Shomuratovna B. R., Narmuminovna G. G. HYGIENIC RECOMMENDATIONS FOR THE PREVENTION OF SCHOOL MYOPIA AND OTHER VISUAL IMPAIRMENTS IN CHILDREN OF PRIMARY SCHOOL AGE //American Journal of Interdisciplinary Research and Development. – 2022. – T. 6. – C. 29-38.
23. Eshnazarovich T. B., Norbuvaevna A. R., Nurmuminovna G. G. Research of ecological and hygiene aspects of agrofactors affecting human health. – 2021.
24. Norbuvaevna A. R., Nurmuminovna G. G., Rukhsora M. HYGIENIC ASSESSMENT OF THE EFFECT OF NITRATES ON HUMAN HEALTH //Archive of Conferences. – 2021. – C. 24-26.
25. Nurmuminovna, Gapparova Guli. "Assessment of Partial Renal Function in Children with Pyelonephritis During the Covid-19 Pandemic." *Eurasian Research Bulletin* 17 (2023): 220-228.
26. . Nurmuminovna G. G. LABORATORY FEATURES OF URATE NEPHROPATHY IN CHILDREN //Western European Journal of Linguistics and Education. – 2024. – T. 2. – №. 2. – C. 40-48.
27. Gapparova G. N., Abdugapparovna M. S. BOLALARDA URIKOZURIK NEFROPATIYANI KLINIKO-LABORATOR DIAGNOSTIKASI //Лучшие интеллектуальные исследования. – 2023. – Т. 5. – №. 1. – С. 13-19.
28. Nurmuminovna G. G. CLINICAL AND LABORATORY FEATURES, DIAGNOSIS AND TREATMENT OF PYELONEPHRITIS IN CHILDREN DURING THE COVID-19 PANDEMIC //JOURNAL OF BIOMEDICINE AND PRACTICE. – 2023. – Т. 8. – №. 2.
29. Nurmuminovna G. G., Ismailovna A. N. Improved Treatment Of Pyelonephritis In Children During The Covid-19 Pandemic //Eurasian Medical Research Periodical. – 2023. – Т. 19. – С. 73-80.
30. Nurmuminovna G. G. PYELONEPHRITIS IN CHILDREN: DIAGNOSIS AND TREATMENT //Web of Scholars: Multidimensional Research Journal. – 2022. – Т. 1. – №. 6. – С. 247-252.

TOSHKENT VILOYATI QISHLOQ XO‘JALIGIGA KLASTER TIZIMINING JORIY ETILISHI

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Annotatsiya: Maqolada Toshkent viloyati qishloq xo‘jaligi tarmoqlari, salohiyati va klasterlar joylashuvi bayon qilingan. Sohaning Respublika viloyatlariga nisbatan tutgan o‘rni, o‘zgarish holati, shuningdek klasterlarning tahlil qilingan.

Kalit so‘zlar: Toshkent viloyati, qishloq xo‘jaligi, baliqchilik va o‘rmon xo‘jaligi, dehqonchilik, chorvachilik, klaster.

Abstract: the article describes the agricultural sectors, potential and location of clusters of the Tosahkent region. The role of the sphere in relation to the regions of the Republic , the state of change, as well as the analysis of clusters.

Keywords: Tashkent region, agriculture, fishing and forestry, farming, livestock, cluster.

Toshkent viloyati maydoni 15,26 ming kv. km bo‘lib, u mamlakatimiz umumiy hududining 3,4 foiziga tengdir. Mintaqa mamlakat qishloq xo‘jalik mahsulotining 13,1 foizini beradi, uning hududiy mahsuloti tarkibida esa bu makroiqtisodiy tarmoq 24,4 foizga teng. Qishloq xo‘jaligining intensiv rivojlanishiga agroiqlimiy sharoit, mehnat resurslari, birmuncha suv resurslari bilan yaxshi ta‘minlanganligi, irrigatsiya infratuzilmasining barpo etilganligi hamda yirik shaharlar va shahar aglomeratsiyasi ta‘sirida katta iste‘mol omilining mavjudligi sabab bo‘lgan. Viloyatda qishloq xo‘jaligida foydalanadigan yerlar 813,9 ming ga yoki umumiy yer maydonining 53,3 foiziga teng. Albatta, bu raqam, mintaqa qisman tog‘li hududlardan iborat ekanligi sababli, uncha katta emas. Sug‘oriladigan yerlar 339,0 ming ga bo‘lib, ular jami qishloq xo‘jaligida foydalaniladigan yerlarning 41,6 foizini tashkil qiladi. [1;114]

Toshkent viloyati respublikamizda nisbatan yuqori urbanizatsiyalashgan va sanoatlashganligi bilan bir qatorda katta agroiqtisodiy salohiyatga ham ega. Mintaqa mamlakat qishloq xo‘jalik mahsulotining 13,1 foizini beradi, uning hududiy mahsuloti tarkibida esa bu makroiqtisodiy tarmoq 24,4 foizga teng. Qishloq xo‘jaligining intensiv rivojlanishiga agroiqlimiy sharoit, mehnat resurslari, birmuncha suv resurslari bilan yaxshi ta‘minlanganligi, irrigatsiya infratuzilmasining barpo etilganligi hamda yirik

shaharlar va shahar aglomeratsiyasi ta'sirida katta iste'mol omilining mavjudligi sabab bo'lgan.[1;106]

Viloyat yalpi qishloq xo'jalik mahsulotida dehqonchilik ustunlik qiladi (2020 y.- 58,8 %). Ushbu mahsulotning 35,7 foizini fermer xo'jaliklari beradi. Fermer xo'jaliklari asosan dehqonchilikda, xususan, paxta, bug'doy va boshqa ekinlarni yetishtirishda katta mavqega ega.

Poytaxt viloyatida qishloq xo'jaligida foydalanadigan yerlar 813,9 ming ga yoki umumiy yer maydonining 53,3 foiziga teng. Albatta, bu raqam, mintaqa qisman tog'li hududlardan iborat ekanligi sababli, uncha katta emas. Sug'oriladigan yerlar 339,0 ming ga bo'lib, ular jami qishloq xo'jaligida foydalaniladigan yerlarning 41,6 foizini tashkil qiladi. Bunday maydonlar nisbati Zangiota, Quyichirchiq, Toshkent, Yangiyo'l tumanlarida katta, Bo'stonliq, Parkent, Ohangaron tumanlarida esa eng kichik. [3]

Qishloq xo'jaligida foydalaniladigan yerlarning 41,9 foiziga turli xil ekinlar ekiladi. Ekin maydonlari ko'p yoki intensiv qishloq xo'jaligi (dehqonchilik) rivojlangan tumanlar O'rtachirchiq, Quyichirchiq, Chinoz, Oqqo'rg'on, Bekobod kabilardir. Ayni paytda bunday yerlar ulushi Bo'stonliq (6,4 %), Ohangaron (17,3 %) va Parkent (20,7 %) tumanlarida sezilarli darajada past. Biroq, aynan shu hududlarda pichanzor va yaylovlar katta maydonlarni egallaydi.

Jami ekin maydoni 356,6 ming gektar, uning 85,2 foizi fermer xo'jaliklari tasarrufida. Donli ekinlar 156,6 ming ga yoki jami ekin maydonining 44,8 foizini egallaydi. 2020 yilda 721,7 (2019 y.-758,7) ming tonna turli xil don (asosan bug'doy – 618 ming tonna) yalpi hosili olingan. Donli ekinlar tarkibida 10 ming gektarga yaqin maydonda makkajo'xori ekilib, undan 62 ming tonnaga yaqin hosil olingan.[3]

Asosiy qishloq xo'jalik ekinlaridan paxta 105,4 ming gektarni egallaydi; yalpi hosil 255 ming tonna atrofida, hosildorlik 24,2 s/ga. Paxta ko'proq Bo'ka, Oqqo'rg'on, Piskent, Chinoz va Bekobod tumanlarida ekiladi. Sholi ko'rilayotgan yilda 5,7 ming gektarda yetishtirilgan (Bekobod tumani), yalpi hosil 27,0 ming tonna. Boshqa texnika va moyli ekinlardan keyingi yillarda masxar va kungaboqarning ham maydonlari kengayib bormoqda.

Ko'p millionli Toshkent shahri va Toshkent viloyati uchun katta miqdorda kartoshka va sabzavot yetishtirish talab etiladi. 2020 yilda 7,7 ming ga yerdan 269 ming tonna kartoshka olingan. Barcha turdagi sabzavotlarga esa 31,8 ming ga maydonlar ajratilgan bo'lib, 1299,1 ming tonna hosil yetishtirilgan. Sabzavot va kartoshkaga asosan Toshkent shahri atrofi xo'jaliklari, shuningdek, Bekobod, Piskent va Chinoz tumanlari ixtisoslashgan. Polizchilik ham tekislik hududlarda joylashgan qishloq tumanlarida ko'proq rivojlangan.

Toshkent viloyatida, xususan, tog'li hududlarda o'rnatilgan Bo'stonliq va Parkent tumanlarida bog'dorchilik yaxshi yo'lga qo'yilgan. Oldingi yillarda bu qishloq xo'jaligi tarmog'i Yangiyo'l tumanida ham rivojlangan edi. Hozirgi vaqtda turli xil mevalar 18,7 ming gektardan 140 ming tonnadan ko'proq hosil olingan. Uzumchilik

ham bog‘dorchilik bilan birga hududiy tashkil etiladi. Uzum yetishtirishda Parkent tumaniga nafaqat viloyatda, balki respublikada ham raqobat yo‘q. Tahlil qilinayotgan yilda u 13 ming gektardan ko‘proq maydonni egallagan va 115 ming tonnadan ziyodroq hosil tayyorlangan.

Viloyatda chorvachilikning asosan sut-go‘sh t yo‘nalishi ko‘proq rivojlangan. Jami 630 ming bosh yirik shoxli qoramol, 645 ming bosh qo‘y va echkilar boqiladi. Otlar soni ham nisbatan ko‘proq – 40,2 ming bosh. 2020 yilda tirik vaznda 166 ming tonna go‘sh t, 568 ming tonna sut, 871 mln. dona tuxum, 1,6 ming tonna atrofida jun va 1,5 ming tonna pilla yetishtirilgan. Parrandachilik ko‘proq Qibray, Zangiota tumanlarida rivojlangan.

Qishloq xo‘jaligi geografiyasida Zangota (12,4), Bekobod (8,7 %), Qibray (8,3 %) tumanlari oldinda. Aholi jon boshiga hisoblaganda esa (o‘rtacha joriy narxda 794 ming so‘m har bir kishiga) Oqqo‘rg‘on, Bekobod, Yuqorichirchiq, Quyichirchiq, Chinoz va Piskent tumanlari yuqori ko‘rsatkichlarga ega. Ularda bu ko‘rsatkich 1000-1100 ming so‘mga yetadi. [4]

1-jadval

Toshkent viloyati qishloq xo‘jaligi mahsulotlarining hududiy tarkibi
(viloyat jamiga nisbatan foizda, 2020 y.).

t/r	Tumanlar	Boshqli don	Sabzavot	kartoshka	meva	uzum	go'sht	sut	tuxum	yirik shoxli qoramol	qo'y va echkilar
1	Bekobod	9,7	12,8	6,7	4,4	0,9	6,8	9,7	1,7	8,1	4,0
2	Bo'stonliq	2,5	9,1	9,6	12,4	10,5	7,8	9,3	2,2	7,7	13,3
3	Bo'ka	12,1	1,6	3,8	1,7	0,3	6,1	6,5	1,7	8,1	6,4
4	Zangiota	1,6	8,2	6,3	8,0	5,3	7,6	6,0	13,1	5,2	2,2
5	Ohangaron	5,7	2,7	1,4	3,2	6,4	5,0	5,3	1,1	6,9	20,9
6	Oqqo'rg'on	8,1	6,0	4,6	3,7	0,7	5,5	6,5	2,4	7,0	3,3
7	Parkent	2,6	2,2	2,2	6,6	36,7	4,4	5,7	0,2	6,0	12,5
8	Piskent	8,3	5,0	11,2	1,6	1,7	5,1	6,3	3,5	6,2	5,9
9	Toshkent	1,6	6,3	7,8	7,4	9,2	5,0	5,1	6,2	3,4	1,6
10	Chinoz	6,0	8,7	11,6	3,5	1,1	5,8	5,9	1,9	5,9	4,1
11	Yuqorichirchiq	10,7	3,5	3,4	6,4	2,4	5,7	6,3	3,0	6,0	2,4
12	Yangiyo'l	6,0	9,6	5,8	17,3	9,4	5,9	6,3	3,8	6,3	5,4
13	O'rtachirchiq	10,6	5,9	6,6	2,0	0,9	8,9	5,7	12,5	6,6	5,4
14	Qibray	2,6	7,1	11,3	12,4	5,9	5,6	5,3	42,2	5,2	3,1
15	Quyichirchiq	11,8	4,8	5,4	2,9	4,1	4,6	6,4	2,8	5,8	1,6
	Shahar joylar	0,0	6,5	2,2	6,4	4,3	10,2	3,8	1,7	5,5	7,2

O‘zbekiston Respublikasi Davlat statistika agentligi 2020 yil ma’lumotlari asosida tuzilgan.

Viloyatda qishloq xo‘jalik mahsulotlari yetishtirishning hududiy tarkibi keltirilgan. Bu ma’lumotlarga ko‘ra g‘alla yetishtirishda Bo‘ka, Quyi Chirchiq, Yuqori Chirchiq va O‘rta Chirchiq tumanlari peshqadam. Sabzavot bo‘yicha Bekobod, kartoshkada Chinoz, Piskent, Qibray ajralib turadi. Bog‘dorchilik Yangiyo‘l, Qibray va Bo‘stonliq tumanlarida rivojlangan; ularning hissasi viloyatda yetishtirilgan mevalarda 42,1 %. Uzumchilik esa Parkent tumanidan tashqari (36,7 %) Bo‘stonliq tumanida ham qisman rivojlangan. Mazkur ikki tuman viloyat uzumining yarmiga yaqinini beradi.

Chorvachilik geografiyasida ham ancha farqlar ko‘zga tashlanadi. Masalan, yirik shoxli qoramollar Bekobod va Bo‘ka, qo‘y va echkilar esa Ohangaron va Bo‘stonliq tumanlarida ko‘proq boqiladi. Bu tog‘ va tog‘oldi hududlarda joylashgan tumanlarga viloyat qo‘y va echkilarining 1/3 qismidan ortig‘i to‘g‘ri keladi.

Viloyatning qishloq, o‘rmon va baliqchilik xo‘jaligi mahsulotlarining umumiy hajmida Bekobod tumanining ulushi 9,7 %ni tashkil etib, hududlar bo‘yicha yuqori ko‘rsatkichni tashkil qildi. Bo‘stonliq (8,1 %), Quyi Chirchiq (7,8 %) va Oqqo‘rg‘on (7,3 %) tumanlari keyingi o‘rinlarni egalladi. Eng kam ulush Yangiyo‘l (0,1 %), Nurafshon (0,3 %) va Olimaliq (0,2 %) shaharlariga to‘g‘ri keldi.

Viloyatda, 2020 yil yakunlari bo‘yicha, jami 6034 ta fermer xo‘jaliklari qayd etilgan, umumiy yer maydoni 454 ming ga, ishchi va xizmatchilar soni 121 ming kishi. Har bir fermerga o‘rtacha 75,2 ga yer va 20,0 kishidan ishchi to‘g‘ri keladi. Yer maydoni ko‘rsatkichlariga qaraganda eng katta maydonlar O‘rtachirchiq, Bekobod, Bo‘stonliq, Chinoz tumanlarida kuzatiladi. Jumladan, Bo‘stonliq tumanida har bir fermerga 136,5 ga yer to‘g‘ri keladi (bu tuman qishloq xo‘jaligining ixtisoslashuviga bog‘liq). Yuqoridagi qolgan tumanlarda mazkur ko‘rsatkichlar 80 gektardan ortiqroq. Ayni vaqtda Qibray va Zangiotada, ya‘ni Toshkent shahri atrofi xo‘jaliklarida fermerlarning yer maydoni eng kam (mos holda 32 va 28 gektardan). Ishchi xodimlar soniga ko‘ra yuqori ko‘rsatkichlar Quyichirchiq va Bo‘ka tumanlarida. Ularda tashkil etilgan fermer xo‘jaliklarining har birida 40-42 kishidan ishchi band.

Xo‘jaliklar tomonidan 1 069,2 ming tonna sabzavot yig‘ib olindi. Bundan tashqari, barcha toifadagi xo‘jaliklarda 375,1 ming tonna kartoshka qazib olindi, 115,2 ming tonna meva va rezavorlar yetishtirildi. [4]

2-jadval

Toshkent viloyatida qishloq xo‘jaligining asosiy ko‘rsatkichlari

	2015	2016	2017	2018	2019	2020	2021	2022
Qishloq xo‘jaligi ekinlari ekin maydoni, gektar	353276	353469	299621	304542	271162	298166	290296	295760,5

Qishloq xo'jaligi mahsuloti, mlrd. so'm	10735,5	12034,2	15594,8	18359,1	20417,1	23875,1	29538,3	33010,8
shu jumladan:								
dehqonchilik	5758,0	5994,7	8111,3	8870,0	9997,1	10831,0	13965,4	16283,3
chorvachilik	4977,5	6039,5	7483,5	9489,1	10420,0	13044,1	15572,9	16727,4
Qishloq xo'jaligi mahsulotlari ishlab chiqarishning o'sish sur'ati, o'tgan yilga nisbatan foizda	103,3	101,9	96,9	98,8	101,1	100,1	104,1	104,2
shu jumladan:								
dehqonchilik	100,6	98,9	88,8	95,5	101,6	100,5	104,5	106,0
chorvachilik	106,2	105,4	105,0	102,3	100,6	99,7	103,8	102,7

O'zbekiston Respublikasi Davlat statistika agentligi 2022 yil ma'lumotlari asosida tuzilgan.

So'nggi yillarda qishloq xo'jaligini isloh qilish va sohaga bozor mexanizmlarini joriy qilish borasida izchil chora-tadbirlar amalga oshirilmoqda.

Xususan, qishloq xo'jaligida ishlab chiqarishning klaster usuli yo'lga qo'yildi, klasterlarga ajratilgan qishloq xo'jaligi maydonlarining hajmi ekin turlari bo'yicha paxta-to'qimachilikda – 67 foizni, chorvachilikda – 8 foizni, meva-sabzavotchilikda – 7,5 foizni tashkil etmoqda.

Klaster usulida yetishtirilgan xomashyoni qayta ishlash uni tayyor mahsulot ko'rinishida iste'molchiga yetkazib berish imkonini bermoqda. [3]

Bugungi kunda respublikamizda yetishtirilayotgan 80 turdan ortiq qishloq xo'jaligi mahsulotlari dunyoning 66 ta mamlakatiga eksport qilinmoqda. 2010 yilda eksportning 11,3 foizi paxta tolasi hissasiga to'g'ri kelgan bo'lsa, 2018 yilga kelib ushbu ko'rsatkich 1,6 foizgacha kamaydi.

Toshkent viloyatida 2018-2021 yillarda barcha sohalarga klaster tizimi keng joriy etildi. Xususan, viloyatda 50 ta agroklasterning faoliyati yo'lga qo'yilib, ularga fermerlar biriktirilayotgani o'zaro iqtisodiy-ijtimoiy munosabatlar barqarorlashishi, raqobatbardoshlikni oshishiga mustahkam zamin bo'lmoqda.

Birgina viloyatda faoliyat yuritayotgan paxta-to'qimachilik klasterlari tomonidan 2021-2025 yillar davomida umumiy qiymati 1 trln. so'mlik investitsiya loyihalari amalga oshirilib, qishloq hududlarida 2,1 ming nafar ishsiz fuqaroning bandligini ta'minlash ko'zda tutilgan. Masalan, O'rta Chirchiq tumanida faoliyat olib borayotgan "Ko'kcha Textil" MCHJ tomonidan ip-kalava ishlab chiqarish bo'yicha yilik quvvati

6,5 ming tonna bo'lgan, qiymati 140 mlrd. so'mlik yangi loyihani ishga tushirish hisobiga 1050 ta yangi ish o'rni yaratilayapti.

2020-2021 yillarda meva-sabzavotchilik klasterlari tomonidan ham o'tgan davrga nisbatan mahsulot yetishtirish hajmi 115,6 foizga oshganini kuzatish mumkin. Ular tomonidan 35,4 mln. dollarlik qishloq xo'jaligi mahsulotlari eksport qilindi, shuningdek, viloyatda 2021 yilda umumiy quvvati 13 ming tonna va saqlash sig'imi 10 ming tonnaga ega bo'lgan 2 ta agrologistika markazi faoliyati yo'lga qo'yildi.

Joriy yilda g'alla yetishtirish 100 foiz klaster usulda amalga oshirilishi hisobiga o'tgan yillarga nisbatan yalpi hosil 1,2 barobarga, hosildorlik esa 7-8 sentnerga oshdi. 2022-2025 yillarda viloyatda sholichilik, pillachilik yo'nalishidagi klasterlar tomonidan ham yana 3 mingga yaqin ish o'rinlari yaratish rejalashtirildi.

Yana bir e'tiborga molik jihat — klaster usuli yo'lga qo'yilganidan so'ng sohaga 762,2 mlrd.so'mlik 4609 ta zamonaviy qishloq xo'jaligi texnikalari xarid qilinishi evaziga hosildorlik ham, daromad ham oshganligini ko'rish mumkin.

Viloyatda qishloq xo'jalik mahsulotlarini etishtirish borasida klaster tizimini yo'lga qo'yish o'z samarasini berayotganini inobatga olib, hozirda 8 ta tumandagi fermer xo'jaliklari klasterlarga birlashtirilgan [1;102].

Birgina Bekobod tumanida jami 12 ming 500 gektar maydonda paxta va 14 ming 800 gektarda g'alla yetishtiriladi. Shundan 6700 gektar paxta, 5000 gektar g'alla maydoni klaster tizimiga ajratilgan. 250 dan ortiq fermer xo'jaliklari klasterlar bilan shartnoma tuzgan holda faoliyat olib bormoqda. Viloyat hokimning 2021-yil 16-sentyabrdagi qarori bilan 2022-yil hosili uchun tumanda fermer xo'jaliklari boshqoli don yetishtirish bo'yicha g'allachilik klasterlari bilan shartnomalar tuzishdi.

Bir so'z bilan aytganda, klaster tizimi nafaqat qishloq xo'jaligi, balki sanoat va xizmat ko'rsatish sohalarini qamrab olmoqda. Zamon talabiga mos odimlash esa hamisha barcha jabhalarda yutuq va samaralar garovi bo'lib kelgan. Bundan ko'rinib turibdiki, viloyatda qishloq xo'jaligidagi barcha tarmoqlarda raqobatbardoshlikni oshirish, ularning shakllanishini rag'batlantiruvchi institutlarni rivojlantirish, shuningdek, innovatsiyalarni joriy etishni ta'minlaydigan klasterlar va klaster tashabbuslarini qo'llab-quvvatlash bo'yicha qator chora-tadbirlar ishlab chiqilmoqdi va chora-tadbirlar asosida ishlar amalga oshirilmoqda.

FOYDALANILGAN ADABIYOTLAR

1. Soliyev A.S. O'zbekiston geografiyasi (O'zbekiston iqtisodiy va ijtimoiy geografiyasi). -T.: Universitet, 2014.
2. O'zbekiston respublikasi prezidentining Farmoni-10.01.2023 yildagi PF-2-son: Paxta-to'qimachilik klasterlari faoliyatini qo'llab-quvvatlash, to'qimachilik va tikuv-trikotaj sanoatini tubdan isloh qilish hamda sohaning eksport salohiyatini yanada oshirish chora-tadbirlari to'g'risida

3. O‘zbekiston Respublikasining yer fondi. –T.: O‘zbekiston Respublikasi Yer resurslari, geodeziya, kartografiya va davlat kadastr davlat qo‘mitasi, 2020.
4. Toshkent viloyati statistika boshqarmasi ma’lumotlari (www.toshvilstat.uz). –T., 2022y.
5. Urinova, N. (2023). TALABALARNING GEOGRAFIK KASBBIY KOMPETENSIYASINI SHAKLLANTIRISH METODIKASI. *Tadbirkorlik va pedagogika*, 1 (2), 162-166.
6. Urinova, N. S. (2022). Principles of using new educational technologies in teaching geography to school students. *Global Scientific Review*, 8, 101-106.
7. Urinova, N. S. va Jo'raeva, L. V. (2023). O 'ZBEKISTONNING TURISTIK SALOHİYATI VA RIVOJLANSIH ISTIQBOLLARI. *IQTISODIYOTDA INNOVATSIYALAR JURNALI*, 6 (5).

VERBALIZATION OF TIME CATEGORY IN ENGLISH
AND UZBEK LANGUAGES

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Abstract

This article is consciously intended to research that Studying the verbalization of the time category in different languages allows us to better understand the specific features of this category in each specific language, as well as to determine the general and specific features of the verbalization of time in different languages. The data were collected by several research works. Those data were then analyzed deeply to come up new ideas with using several research methods. Thus, the goal of the article is to establish and describe the noun nominations of the notion of time in present-day English. The analysis of the corresponding fragment of language with a further reconstruction of its semantic network enables us to reveal the structure of the notion of time and explain the principles of organization of the lexical units.

Keywords: verbalization, correspondence, noun nominations, the corresponding fragment, semantic network, the lexical units, the principles.

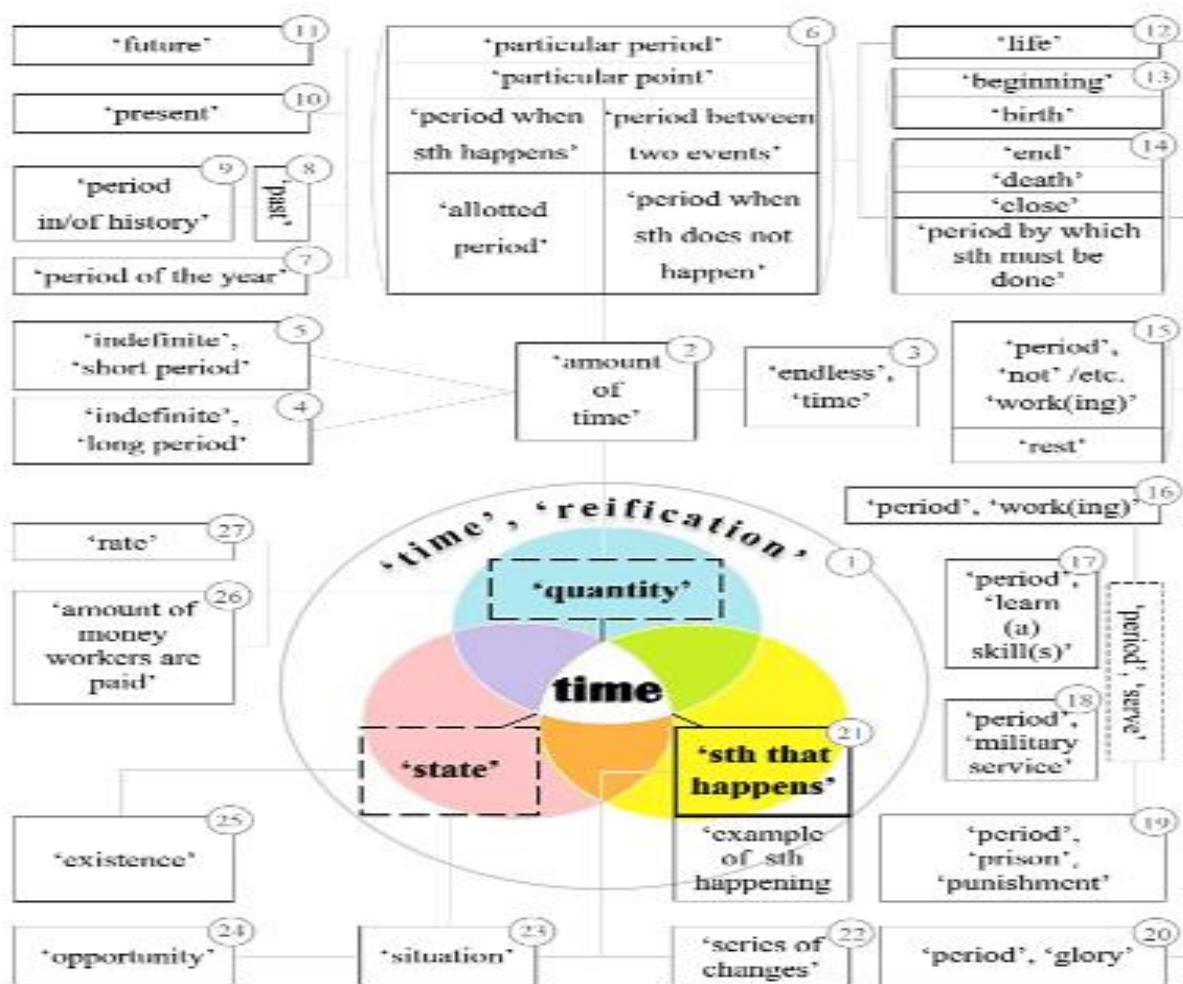
As a part of a more general problem of the relationship between language and cognition, the issue of time verbalization presupposes a scientific consideration of its mental grounds. The framework of the notion of time is modelled on the basis of the meanings of the lexical means that represent it. Even though the mental unit of time has been the subject of a number of studies (Huang, 2016; Janda, 2013; Lakoff, 1993; Makarova & Nessel, 2013; Nordlander, 1997; Plungian & Rakhilina, 2013; Tatsenko, 2009), only a few linguists have attempted to answer the question about its basic semantic structure. So, for example, Evans (2005) reduced all the possible meanings of the noun time to eight senses based on the meaning, concept elaboration and grammatical criteria. They are as follows: 1) the Duration Sense (the Sub-sense1: protracted duration; the Sub-sense2: temporal compression); 2) the Moment Sense; 3) the Instance Sense; 4) the Event Sense; 5) the Matrix Sense; 6) the Agentive Sense; 7) the Measurement-system Sense; 8) the Commodity Sense (Evans, 2005, p. 107–183). In the scholar’s opinion, these lexical senses and their interrelations lie in the basis of the semantic network of time (Evans, 2005, p. 120).

Bondarenko (2014) describes TIME as a complex matrix of domains that consists of ‘warm’ and ‘cold’ components represented in English in the form of the lexico-semantic field. The ‘warm’ domain is MODE OF ACTION, whereas the domains

LOCATION ON THE TIME AXIS and RHYTHM are called ‘cold’. The DURATION and SUCCESSION ON THE TIME AXIS are defined as intermediate cognitive structures (Bondarenko, 2014, p. 53).

The results of the research by Afanasieva (2007) and Nilsen (2010) are also of great interest. According to Nilsen (2010), six blocks constitute the semantics of time in present-day English: 1) Time as value; 2) Time as higher power; 3) Time as motion (3a – linear time; 3b – cyclical time); 4) Absolute time; 5) Time as container; 6) Time as a measurement system. To single out the blocks, the scientist used data from the survey of English-speaking informants as well as paremiology material (Nilsen, 2010, p. 20–21).

Fig. 1 The semantic network of the notion of time in present-day English



The investigation of the verbalization of time is of paramount importance as it provides insights into the intricate ways language reflects and shapes our understanding of temporal concepts. Time, being a fundamental aspect of human existence, is a complex and multifaceted phenomenon that is linguistically expressed in various ways across different languages. Understanding how different languages convey temporal information not only deepens our grasp of linguistic structures but also sheds light on

broader cognitive, cultural, and pragmatic dimensions. Here are some key reasons highlighting the importance of studying the verbalization of time:

1. **Cultural Significance:**

- The verbalization of time is deeply embedded in cultural practices and societal norms. The study of temporal expressions unveils cultural attitudes toward time, punctuality, and the organization of daily life.

2. **Cognitive Linguistics:**

- Temporal expressions provide a unique lens through which to explore cognitive processes related to memory, planning, and conceptualization of past, present, and future events. Studying how languages encode time contributes to the field of cognitive linguistics.

3. **Communication and Understanding:**

- Effective communication relies heavily on the accurate expression and interpretation of temporal concepts. Studying how time is verbalized enhances our understanding of how speakers convey temporal information and how listeners interpret it.

4. **Language Universals and Variations:**

- Comparative studies of temporal expressions across languages reveal common linguistic patterns as well as unique features. This exploration contributes to our understanding of language universals and variations in the verbalization of time.

5. **Linguistic Relativity:**

- The study of time verbalization is closely tied to the Sapir-Whorf hypothesis, suggesting that language influences thought. Analyzing how different languages structure temporal concepts allows us to explore the extent to which language shapes our perception of time.

6. **Language Teaching and Learning:**

- Language educators can benefit from insights into how temporal concepts are expressed in different languages. Understanding the nuances of time verbalization facilitates effective language teaching and assists learners in mastering temporal aspects of language.

7. **Translation Studies:**

- Translating temporal expressions can be challenging due to linguistic and cultural differences. Investigating how time is verbalized aids in the development of effective translation strategies and contributes to the field of translation studies.

8. **Pragmatic Implications:**

- Temporal expressions often carry pragmatic implications, influencing social interactions and conveying information about speaker attitudes, politeness, or urgency. Studying these pragmatic dimensions enhances our understanding of language use in context.

9. **Cross-Cultural Communication:**

- In a globalized world, where individuals from different linguistic and cultural backgrounds interact, understanding how time is verbalized facilitates cross-cultural communication. Awareness of cultural perspectives on time aids in avoiding misunderstandings and promoting effective communication.

The verbalization of time in English and Uzbek exhibits both similarities and differences. Below is a comparative analysis of how time is typically expressed in these two languages:

1. Verb Forms:

• English:

- English uses a combination of verb conjugations and auxiliary verbs to convey time, including present, past, and future tenses.

- I work, I worked, I will work.

• Uzbek:

- Uzbek employs suffixes and auxiliary verbs to indicate present, past, and future tenses.

- Men ishxonada ishlayman, Men ishxonada ishlaganman, Men ishxonada ishlayman.

2. Temporal Adverbs:

• English:

- English uses adverbs to specify the timing or frequency of actions.

- Now, tomorrow, yesterday, every day.

• Uzbek:

- Uzbek also relies on temporal adverbs to convey similar information.

- hazr, ertaga, kecha, har kuni.

3. Lexical Items:

• English:

- English has specific words for various time units and markers indicating temporal order.

- morning, evening, today.

• Uzbek:

- Uzbek similarly includes lexical items for time units.

- sabah, kech, bugun.

4. Deictic Elements:

• English:

- English uses deictic elements like "this" and "that" to orient events in time.

- this hour, that day.

• Uzbek:

- Uzbek employs similar deictic elements.

- shu soat, o'sha kun.

5. Temporal Conjunctions:

• **English:**

- English uses conjunctions to indicate temporal relations between clauses.
- then, when, at first.

• **Uzbek:**

- Uzbek has its own set of temporal conjunctions.
- keyin, qachonki, dastlab.

6. Grammatical Markers:

• **English:**

• English utilizes grammatical markers like verb conjugations and auxiliary verbs to indicate time.

- am working, will be working.

• **Uzbek:**

- Uzbek employs suffixes and auxiliary verbs for a similar purpose.
- ishlayapman, ishlayman.

7. Cultural Nuances:

• **English:**

- Expressions of time in English may reflect cultural attitudes and practices.
- Sunday, early morning.

• **Uzbek:**

- Uzbek expressions similarly carry cultural connotations.
- yakshanba kuni, ertalab.

8. Verb Moods:

• **English:**

• English has indicative, subjunctive, and imperative moods that may influence temporal expression.

- If I were, Study!

• **Uzbek:**

• Uzbek also has verb moods, including indicative, subjunctive, and imperative forms.

- Men o'qiyapman, Men o'qishni istayman.

9. Reduplication:

• **English:**

- Reduplication is less common for temporal emphasis in English.
- strength and power.

• **Uzbek:**

- Reduplication is used in Uzbek for emphasis or to convey repetition.
- kuch-quvvat.

10. Causality and Temporal Relations:

• **English:**

- English expressions often convey causality and temporal relations.

- She studies and works well.
- **Uzbek:**
 - Uzbek similarly indicates causality in temporal relations.
 - U o'qib, ham yaxshi ishlaydi.

While both English and Uzbek share common strategies for verbalizing time, such as verb conjugations, temporal adverbs, and deictic elements, they also exhibit language-specific features influenced by cultural and linguistic factors. The comparison highlights the diverse ways in which languages express temporal concepts.

In conclusion, the study of the verbalization of time is crucial for its implications on language, cognition, culture, and communication. By delving into the intricacies of temporal expressions, researchers gain valuable insights into the ways languages encapsulate our perception and experience of time.

References

1. Afanasieva, O. V. (2007). The Semantic Structure of the Notion of TIME and its Reflection in Phraseological Systems of English, Spanish and Russian
2. Barcelona, A. (2002). Clarifying and applying the notions of metaphor and metonymy within cognitive linguistics: an update. In R. Dirven (Ed.), *Cognitive linguistic research. Metaphor and metonymy in comparison and contrast*, 20, (pp. 207-279). Berlin, New York: Mouton de Gruyter.
3. Bondarenko, Ye. V. 2014. Time Duality in the English Picture of the World.
4. Borysov, O. O. (2010). The criticism of understanding of the term 'the concept' in modern linguistics1(1), 63-65.

ЭНЕРГЕТИК ИЧИМЛИК ТАЪСИРИДА МЕЪДА ДЕВОРИНИНГ МОРФОЛОГИК ЎЗГАРИШЛАРИ

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Аннотация. Тадқиқот оғирлиги 180-220 граммга тенг бўлган етилган каламушларга per os Red Bull энергетик ичимлиги 10, 30 ва 60 кун давомида бериб борилди ва меъданинг морфологик ўзгариши ўрганилди. Тажриба гуруҳидаги каламушлар меъдасининг деворининг шиллик қават гипертрофияси аломатлари, некроз белгилари ва меъданинг қаватларини қалинлашуви аниқланди. Бу ўзгаришлар тажрибанинг охириги кунларида яққол акс этиши билан намоён бўлди.

Калит сўзлар. Меъда, постнатал онтогенез, энергетик ичимлик, меъданинг деворини қаватлари

Abstract. In the study, rats weighing 180-220 grams were given per os Red Bull energy drink for 10, 30 and 60 days, and morphological changes in the stomach were studied. Signs of mucosal hypertrophy of the stomach wall of rats in the experimental group, signs of necrosis and thickening of the stomach layers were revealed. These changes were clearly reflected in the last days of the experiment.

Keywords. Stomach, postnatal ontogenesis, energy drink, stomach wall layers

Бугунги кунда, айниқса ёшларни орасида катта қизиқиш билан истемол қилинаётган энергетик ичимликлар таркибидаги моддалар сабабли организмнинг нерв системасига таъсир қилади (6,9). Энергетик ичимликни қабул қилинганида инсоннинг кайфияти кўтарилиб, меҳнатга лаёқатлилиқ ошади. Жаҳон соғлиқни сақлаш маълумотида кўра ўсмирларнинг ўндан саккиз қисми, 13 ёшдан 17 ёшгача болаларнинг эса ҳар бири ҳеч бўлмаса ҳаётида бир марта энергетик ичимликларни ичиб кўрган (1,5). Энергетик ичимликларни ишлаб чиқарувчи корхоналар бу ичимликларнинг организмга салбий таъсирини инкор қилади. Лекин адабиётлардаги маълумотларга кўра кўпгина клиник кузатувлар энергетик ичимликларни салбий оқибатларини кузатилган (7,8,10). Адабиётларда энергетик ичимликларни нерв системасига, юрак қон томир тизимида, сийдик ажратув тизимида, овқат ҳазм қилиш тизимида негатив таъсири ҳақида маълумотлар мавжуд (2,3,4). Энергетик ичимликларни овқат ҳазм қилиш тизимида айниқса меъдага таъсири амалий тиббиётда катта қизиқиш талаб қилади. Адабиётларда юқоридаги муаммога бағишланган муаммолар тўлиқ эмас ва бир бирига зид. Бугунги кунда энергетик ичимликларни бугунги кунда ёшларни ўртасида катта қизиқиш билан истемол қилинаётганлигини эътиборга

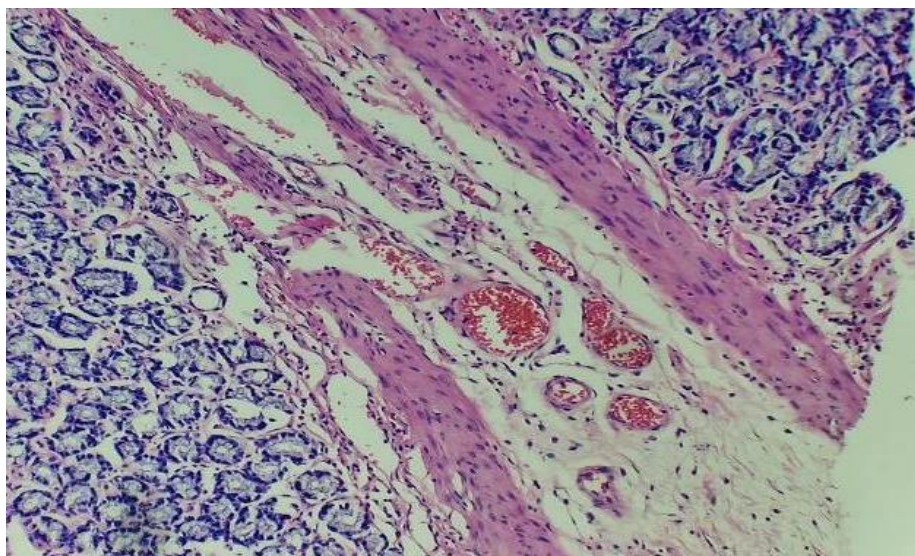
олиб, энергетик ичимликларни истеъмол қилинганида меъданининг шиллик қаватига таъсирини ўрганиш долзарб ҳисобланади.

Тадқиқотнинг мақсади, энергетик ичимликлар таъсирида меъданинг деворида кузатиладиган структуравий ўзгаришларни аниқлаш.

Ўрганиш материали ва ўрганиш усуллари. Тадқиқот оғирлиги 180-220 граммга тенг бўлган этилган каламушларда ўтказилди. Тажриба ҳайвонлари оддий лаборатория рационини шароитида сақланди. Соматик ва юқумли касалликлар истисно этилгандан сўнг барча оқ лаборатор каламушлар 2 та гуруҳга ажратилди: 1-гуруҳни 25 та соғлом каламушлар ташкил қилди, буларга ҳар куни 10 мл/кг миқдорида ўмов ости катетори ёрдамида меъда ичига дистилланган сув юборилди. 2-гуруҳ тажриба гуруҳи бўлиб, ҳар куни 10мл/кг миқдорида ўмов ости катетори ёрдамида меъда ичига Red Bull энергетик ичимлиги юборилди. Тажриба гуруҳидаги каламушлар 10, 30 ва 60 кун давомида энергетик ичимлик бериб борилди.

Каламушлар эфир наркози остида жонсизлантирилди. Қорин бўшлиғи очилгач, меъда макроскопик текширув ўтказилди. Макроскопик кузатувдан сўнг меъданинг барча бўлимларидан кичик ўлчамдаги бўлакчалар кесиб олинди, 12 %ли формалин эритмасида фиксация қилинди ва гистологик препаратлар тайёрланди. 6-8 мкмлик тайёр гистологик препаратлар гематоксилин эозин. Ван Гизон усулларида бўялди.

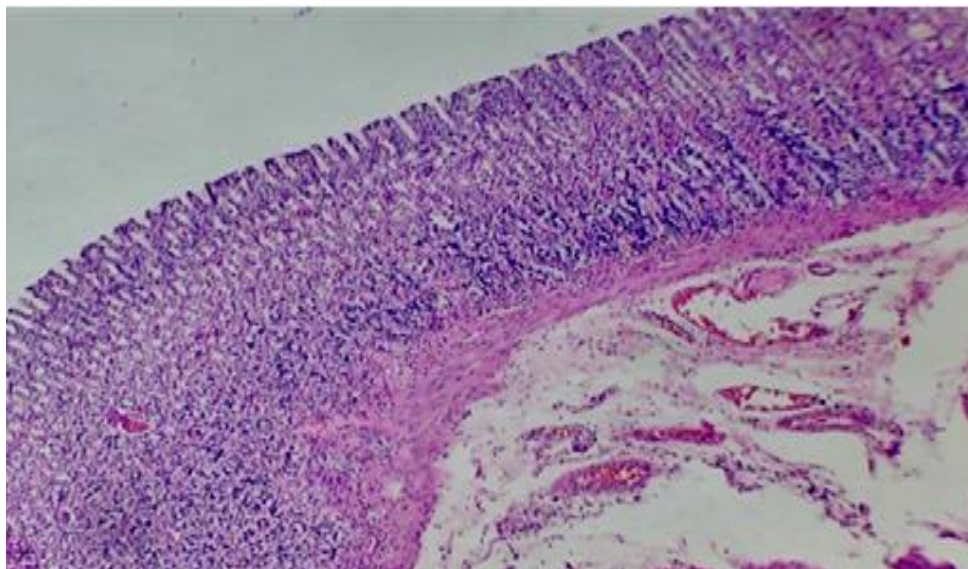
Олинган маълумотлар таҳлили. Назорат ва тажриба гуруҳида 10 кунлик каламушлар меъдасининг гистологик тузилиши солиштирилганда ўзаро фарқ борлиги кузатилмади. 30 кунга келиб тажриба гуруҳидаги каламушлар меъда ости беши безли ва безсиз қисмларида юза эпителийсида деструктив ўзгаришлар ривожланиши аниқланди. Меъданинг шиллик қаватида шиш қайд этилди, қопловчи эпителийда ўчоқли дегенератив ўзгаришлар, баъзи жойларда некротик ўчоқлар аниқланди (1-расм).



1 расм. 30 кунлик тажриба гуруҳидаги оқ лаборатор каламушларнинг меъдаси деворини шиллик қаватида шиш, қопловчи эпителийда ўчоқли дегенератив ўзгаришлар. Гематоксин-эозин билан бўялиши.

Меъда шиллик қаватининг проксимал қисмида мугузланувчи кўп қаватли эпителийда гиперкератоз белгилари ривожланди. Биз аниқлаган белгиларни меъдада энергетик ичимликга нисбатан организмни адаптив жараёнга реакцияси деб ҳисобланшимиз мумкин. 30 кун давомида энергетик ичимлик берилган оқ зотсиз каламушларда меъданинг безсиз қисмларининг эпителий қопламасининг баландлиги назорат гуруҳига қараганда ошиши кузатилди ва ўртача $69,2 \pm 1,1$ мкмга (назорат гуруҳида $63,6 \pm 0,8$ мкм) тенг бўлди. Меъданинг безли қисмида энергетик ичимлик 30 кун давомида берилганида назорат гуруҳига қараганида бир қаватли текис эпителийнинг қалинлашганлиги аниқланди ва бу кўрсаткич назорат гуруҳида $30,2 \pm 0,3$ мкмни ташкил қилган бўлса, тажриба гуруҳида $38,3 \pm 1,3$ мкмга тенг бўлди. Бу даврда меъданинг безсиз қисмларида циркуляр мушак қобиғининг қалинлиги назорат гуруҳига нисбатан 16% га катталашуви кузатилди ва назорат гуруҳида ўртача $66,6 \pm 0,2$ мкмга тенг бўлди, тажриба гуруҳида эса $71,2 \pm 0,8$ мкмга етди. Меъданинг безли қисмида айлана мушак қаватининг қалинлиги назорат гуруҳида $75,7 \pm 0,8$ мкмни тажриба гуруҳида эса мазкур қаватнинг қалинлиги катталашуви 15 % тенг бўлди. Бўйлама мушак қаватининг ўзаро қалинлиги солиштирилганда тажриба гуруҳида 17% га қалинлашган эканлиги аниқланди. Шиллик ости қаватида бўйлама мушак қатламида артериола ва капиллярлар жойлашади ва қоннинг шаклли элементлари билан тўлган веналар борлиги аниқланди (2-расм).

Назорат ва тажриба гуруҳидаги каламушларнинг меъдасининг мушак ташқи қобиғининг умумий қалинлиги кўрсаткичлари қиёсланганда, безсиз қисмда 30 кунлик даврда 18% ни ташкил қилди. Бу даврда меъда деворининг умумий қалинлигини ўзгариши сезиларли бўлмади. Безли қисмларида эса меъда деворининг умумий қалинлиги 25% гача катталашуви қайд этилди. Шундай қилиб, назорат ва тажриба гуруҳида меъда деворининг кўрсаткичлари ўзаро солиштирилганида меъданинг барча бўлимларида шиллик қават гипертрофияси аломатлари ва унинг қалинлашуви аниқланди.



2 расм. 60 кунлик тажриба гуруҳидаги оқ лаборатор каламушларнинг меъдаси деворини шиллик қават тузилиши. Гематоксилин-эозин билан бўялиши.

Энергетик ичимлик сурункали 60 кун давомида берилганида меъданинг безсиз қисмининг шиллик қаватини 18% га, безли қисмида эса 16% га кичрайиши аниқланди. Назорат ва тажриба гуруҳидаги каламушларнинг меъдасининг мушак ташқи қобиғининг умумий қалинлиги кўрсаткичлари қиёсланганда, безсиз қисмда 60 кунлик даврда 22% ни ташкил қилди. Бу даврда меъда деворининг умумий қалинлигини ўзгариши сезиларли бўлмади. Безли қисмларида эса меъда деворининг умумий қалинлиги 36% гача катталашиши қайд этилди. Шундай қилиб, назорат ва тажриба гуруҳида меъда деворининг кўрсаткичлари ўзаро солиштирилганида меъданинг барча бўлимларида шиллик қават гипертрофияси аломатлари ва унинг қалинлашуви аниқланди.

Шундай қилиб, 30 кун давомида энергетик ичимлик берилиши натижасида меъданинг безсиз бўлимидаги эпителиал қоплама баландлиги 21%, безли бўлимида 19%га катталашгани маълум бўлди, 60 кун давомида бериш эса иккала соҳада катталашиши 19%га тенг бўлган. Худди шу каби ишончли ўзгаришлар лаборатория ҳайвонларининг меъдаси шиллик қаватнинг умумий қалинлиги, циркуляр-мушак қобиқ, бўйлама-мушак қобиғи ва мушак-ташқи қобиғида ҳам кузатилди.

Шундай қилиб, бизнинг олинган маълумотларимиз таҳлили тажриба ва назорат гуруҳидаги 10 кунлик каламушлар меъдасининг гистологик тузилиши солиштирилганда ўзаро фарқ борлиги кузатилмади. 30 кунга келиб тажриба гуруҳидаги каламушлар меъда ости беги безли ва безсиз қисмларида юза эпителийсида деструктив ўзгаришлар ривожланиши аниқланди. Меъданинг шиллик қаватида шиш қайд этилди, қопловчи эпителийда ўчоқли дегенератив ўзгаришлар, баъзи жойларда некротик ўчоқлар аниқланди. 60 кунга келиб

тажриба гурухида меъда деворининг кўрсаткичлари ўзаро солиштирилганида меъданинг барча бўлимларида шиллик қават гипертрофияси аломатлари ва унинг қалинлашуви аниқланди.

References

1. Albu, D.–F. A Dandy – Walker variant prenatally diagnosed using ultrasound on one of the fetuses of a twin pregnancy obtained through in vitro fertilization /D.–F. Albu, C.–C. Albu, S.–D. Albu // International Journal of Medical Research and Review. - 2015. - Vol. 3, No. 3. - P. 127-131.
2. Bar – Yosef, O. Neurodevelopmental outcome of isolated ventriculomegaly: a prospective cohort study / O. Bar – Yosef, E. Barzilay, S. Dorembus [et al.] // Prenat. Diagn. - 2017. - Vol. 37. - P. 764-768.
3. Blinov, A.Yu. Fundamentals of ultrasonic fetometry / A.Yu. Blinov, M.V. Medvedev. - M.: Real Time, 2012. -- 136 p.
4. Carseldine, W. Antenatal diagnosis of a fetal dural venous thrombosis / W. Carseldine, F. Park, C. Abel [et al.] // Ultrasound Obstet. Gynecol. - 2013. –Vol. 42, No. 1. - P. 151.
5. Esetov, M.A. Echography of the central nervous system of the fetus. Intermediate sail cavity: own observation and literature review / M.A. Esetov, G.M. Bekeladze, E.M. Huseynova // Prenat. Diagn. - 2015. –Т. 14, no. 1. - pp. 46–51.
6. Malanina, E.N. Prenatal diagnosis of a rare syndrome with a wide range of brain malformations: case description, differential diagnosis, literature review / E.N. Malanin, D.R. Kasymova, R.R. Azizova [and others] // Prenat. Diagn. - 2011. - T. 10, No. 2. - P. 138-145.
7. Medvedev, M.V. Prenatal echography. Differential diagnosis and prognosis / M.V. Medvedev. - 3rd ed. - M.: Real Time, 2012. -- 464 p.
8. Mirsharopov U.M.; Usmonov R.J.; Teshaev O.R. Mirzamuhamedov O.Kh. Akhmedova S.M. et al. Morphological change of myocardium in hypothyroidism // Central Asia Journal of Medicine – 2020, № 1 – p. 71–83.
9. Mirzamukhamedov O.Kh., Mirsharopov U.M., Sodikova Z.Sh., Akhmedova S.M., Khatamov A.I., Mirzabekova O.A. Especially the development of myocarditis in hypothyroidism in postnatal ontogenesis // Indian Journal of Forensic Medicine & Toxicology – 2020, Vol. 14, № 4 – p. 7737–7745.
10. Trofimova, T.N. Beam research of the fetal and newborn brain / T.N. Trofimova, A.S. Job, D.V. Voronin [and others] // Ed. Trofimova T.N. - SPb.: Baltic Medical Educational Center, 2011. -- 196 p.

МОРФОЛОГИЧЕСКИЕ ИЗМЕНЕНИЕ СОСУДОВ ПРИ ЭКСПЕРИМЕНТАЛЬНОМ САХАРНОМ ДИАБЕТЕ

Усманов Р.Дж., Миршаропов У.М., Ахмедова С.М., Усмоналиева З.А.

Аннотация. Объектом исследования служили 90 белых крыс в возрасте 4-6 месяцев. Изучено морфологические изменения поджелудочной железы и стенок сосудов нижней конечности при экспериментальном сахарном диабете. Сравнения масса тел крыс контрольной и экспериментальной группы показало, что в течение эксперимента масса крыс экспериментальной группы оставалось в развитие по сравнению с контрольной группой на 1,7 раза. Во всех сроках эксперимента в панкреатических островках отмечалась умеренная лимфоцитарная инфильтрация. Морфологические исследование сосудов в различные сроки постнатального онтогенеза показали, что по сравнению с контрольной группой изменения в виде задержки развития и формирования отдельных компонентов стенки сосудов. Деструктивные изменения в стенке артерий отмечены нами у всех подопытных животных с первых дней после эксперимента.

Ключевые слова: сахарный диабет, стрептозотоцина, поджелудочная железа, сосуды

MORPHOLOGICAL CHANGES IN VESSELS IN EXPERIMENTAL DIABETES MELLITUS

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Ташкентская медицинская академия

Abstract. The aim of the work is to study the morphofunctional disorders of the pancreas and vessels of the lower limb of rats in experimental diabetes mellitus. The object of the study were 90 white rats aged 4-6 months. The morphological changes in the pancreas and the walls of the vessels of the lower limb in experimental diabetes mellitus were studied. The model of experimental diabetes mellitus was reproduced by a single intraperitoneal administration of streptozotocin to Wistar rats at a dose of 60 mg/kg. Comparison of the body weight of the rats of the control and experimental groups showed that during the experiment, the weight of the rats of the experimental group remained in development compared to the control group by 1.7 times. In all periods of the experiment, moderate lymphocytic infiltration was noted in the pancreatic islets. Morphological studies of vessels at different times of postnatal ontogenesis showed that, compared with the control group, there were changes in the form of developmental delay and the formation of individual components of the vessel wall. We noted destructive changes in the arterial wall in all experimental animals from

the first days after the experiment. The obtained results indicate that type 1 diabetes mellitus leads to changes in the pancreas and blood vessels of the extremities.

Keywords: diabetes mellitus, streptozotocin, pancreas, blood vessels

Высокая распространенность сахарного диабета (СД) признана неинфекционной эпидемией и представляет собой серьезную медико-социальную проблему. Это обусловлено тяжестью его течения, большим количеством осложнений (1, 2,6). По данным ВОЗ, в настоящее время в мире насчитываются более 220 млн больных СД (2), 10–20% из них больные СД

типа 1 (4). В 2005 г. СД стал причиной смерти 1,1 млн человек по всему миру (3), а в период с 2005 по 2030 г. эксперты ВОЗ ожидают. Диабетические ангиопатии основное проявление сахарного диабета. Они представляют собой генерализованное поражение артериол, капилляров и венул, тем самым определяют клиническое течение и прогноз заболевания и являются самой частой причиной смерти. В мире ежегодно выполняется свыше 2,7-4,5 млн высоких ампутаций по поводу диабетических поражений нижних конечностей. Микрососудистые осложнения, характерные для сахарного диабета, реализуются путем развития эндотелиальной дисфункции. Понимание механизмов неблагоприятных изменений, возникающих в организме при сахарном диабете является актуальной проблемой современной медицины. Для разработки способов коррекции, которые могли бы нивелировать последствия осложнений СД надо знать какие механизмы нарушаются при этом.

Целью работы было изучение морфофункциональных нарушений сосудов нижней конечности крыс при экспериментальном сахарном диабете.

Материал и методы исследования. Объектом исследования служили 90 белых крыс (самцов) линии Wistar с начальной массой $180 \pm 2,64$ г в возрасте 4-6 месяцев. Модель экспериментального сахарного диабета воспроизводили однократным интраперитонеальным введением стрептозотоцина в 0,1 М цитратном буфер рН 4,5, крысам Wistar в дозе 60 мг/кг. Определение глюкозы крови из хвостовой вены проводили глюкозооксидазным методом. От непосредственного действия стрептозотоцина погибли 3 крыс. Не чувствительными были 2 животных. Для дальнейшего исследования использовали только крысы с повышенным уровнем глюкозы (> 11 ммоль/л). Забой крыс был произведен через 5,15,30,60,90 дней после начало эксперимента. Для изучения поджелудочной железы и сосудов задних конечностей как у интактных животных, так у крыс ЭСД применялись окрашивание гистологических препаратов гематоксилин эозином, по Ван Гизону и Вейгерту. А также рентгеновазографии сосудов. Для математической обработки данных использованы прикладные программы Microsoft Excel 2010 в разделе описательной статистики, определения стандартных отклонений и сравнения

выборок с определением средней арифметической M , средней ошибки относительных величин m и коэффициента достоверности разности t .

Результаты исследования и их обсуждение. Сравнение масса тел экспериментальной и контрольной групп показало, что в начале эксперимента у обеих групп достоверной различии не было. В течение эксперимента масса крыс экспериментальной группы оставалось в развитии по сравнению с контрольной группой на 1,7 раза. При этом темп роста контрольной группы составлял 50%, а у крысят экспериментальной группы 21%. Развитие экспериментального сахарного диабета у подопытных животных сопровождалось стойкой гипергликемией. Уровень глюкозы в крови крыс с СД повышался до $19,4 \pm 4,3$ ммоль/л по сравнению с $5,2 \pm 1,1$ ммоль/л в группе контроля. Уровень глюкозы в крови у крыс с ЭСД на 5 день после ведения стрептозотоцина достоверно превосходил в 3,2 раза при сравнении с животными контрольной группы. В течение последующих дней наблюдений количество сахара в крови крыс экспериментальной группы животных также оставалось стабильно высоким – 15,9 ммоль/л, практически не изменяясь ($\pm 0,38$ ммоль/л) по сравнению с 5-м днем исследования. При этом максимального значения уровень гликемии натошак достиг к 30-му дню исследования и составил 19,4 ммоль/л.

При микроскопическом исследовании поджелудочной железы крыс экспериментальных крыс установлены дегенеративные и деструктивные изменения ее ткани, особенно эндокринной части – островков Лангерганса. Уже в 5 й день ЭСД наблюдали отек междольковой соединительной ткани. На 60 день эксперимента отмечены некротические изменения β -клеток, которые усилились к 90 дню эксперимента.

Во всех сроках эксперимента в панкреатических островках отмечалась умеренная лимфоцитарная инфильтрация. Капилляры островков были резко полнокровны, эндокриноциты, расположенных в центральных зонах были некротизированы, а расположенные в периферических отделах островка гипертрофированы. Объемная доля островков на 25% уменьшалась по сравнению с крысами контрольной группой. Инсулин-позитивные клетки располагались поодиночке или в виде мелких скоплений в центральных отделах островков вокруг полнокровных капилляров. Происходило значительное уменьшение площади, занимаемой в эндокриноцитами, во всех зонах поджелудочной железы по сравнению с контрольной группой животных.

Данными рентгеновазографии установлено, что у всех животных экспериментальной группы в течение 5 суток после экспериментального моделирования сахарного диабета отмечается заметное расширение внутримышечных артериальных сосудов в мышцах голени и кожи. Так, в ранних сроках (5-15 дней) наблюдения прогрессируют воспалительно-деструктивные изменения в сочетании с не выраженными атрофическими процессами.

Морфологические исследования сосудов в различные сроки постнатального онтогенеза показали, что по сравнению с контрольной группой изменения в виде задержки развития и формирования отдельных компонентов стенки сосудов. Деструктивные изменения в стенке артерий отмечены нами у всех подопытных животных с первых дней после эксперимента. Они характеризовались истончением стенки и расширением просвета сосуда, редким расположением ядер эндотелия, десквамацией отдельных эндотелиальных клеток в просвет сосуда. Мышечный слой растянут, состоит из 1- рядов клеток. Отмечается также фрагментация внутренней эластичной мембраны. На 30 й день эксперимента в стенках микрососудах преобладают склеротические и деструктивные изменения. Стенка артериол утолщена в результате увеличения базальной мембраны и широкой окружающей соединительной ткани. В средней оболочке внутримышечных сосудов выявляется сеть тонких волокон, соединяющих внутреннюю и наружную эластические мембраны. Фрагменты эластических мембран пополняются новыми эластическими элементами. Сами мембраны несколько утолщаются. Стенка венул также утолщена и деформирована из-за гиперхромазии эндотелиальных клеток и базальной мембраны.

На 60 й день постнатального онтогенеза морфологические изменения в стенках сосудов приобретают хроническое течение и проявляются склеротическими и дегенеративными изменениями. Эндотелиальный слой интимы представлен уплощенными клетками, в других образует наслоение и значительное выступление в сторону просвета сосуда. Базальная мембрана извилиста, неравномерно утолщена и интенсивно окрашена эозином, местами за счет тонкая и сливается с волокнистыми структурами межклеточной соединительной ткани. На поздних сроках эксперимента на стопе конечности наблюдается выпадение шерсти и десквамация эпидермиса. На 90 день после начала эксперимента появлялись трофические язвы различных размеров в области пятки или же на тыльной поверхности стопы и пальцах.

Гистологические и гистохимические исследования показывают, что у всех подопытных животных с первых дней после ЭСД отмечаются деструктивные изменения, в стенках внутримышечных сосудов. Сосуды кровенаполнения, их стенки истончены, просвет расширен. Многие клетки эндотелия набухшие, ядра клеток редко расположены, некоторые из них десквамируют в просвет сосуда. Мышечный слой сосудов растянут, состоит из 1-2 рядов клеток. Внутренняя эластическая мембрана истончена местами фрагментирована. При этом у животных в начальных днях эксперимента деструктивные изменения стенок внутримышечных сосудов менее выражены. ШИК – реакция у животных экспериментальной группы положительно. Особенно у 30 и 90 дневных животных экспериментальных групп резко положительно. В последующие сроки (до 30-60 дней) вышеуказанные сосудистые и тканевые изменения прогрессируют.

Наблюдаются увеличение количество спастически суженных сосудов. Часто встречаются мало- и безсосудистые зоны, слепозаканчивающиеся капилляры, особенно в участках, подверженных атрофическим изменениям. Однако нужно отметить, что в венозном русле застойные явления заметно выражены. Подобная картина гемодинамических нарушений приводит к выраженным морфологическим изменениям тканевых структур.

Таким образом, полученные результаты свидетельствуют о том, что сахарный диабет 1 типа приводит изменениям сосудов и мышц конечностей. На исследованном нами в раннем сроке эксперимента развития сахарного диабета приводит к функциональным изменениям, а последующих сроках эксперимента структурные изменения связанные с нарушениями тканевого метаболизма.

Литература:

1. Mirzamuhamedov O. M., Akhmedova S. M. State of the myocardium in experimental toxic myocarditis Proceedings of the IV International Scientific and Practical Conference "Topical Problems of Modern Science and Possible Solutions" (September 30, 2017, Dubai, UAE) P.51-54
2. Блинова Е.В. и др. Морфофункциональная характеристика миокарда при экспериментальном повреждении сердца на фоне сахарного диабета и действия цитопротекторов //Вестник новых медицинских технологий – 2013 – Т. 20, № 4 – С. 78-82
3. Миршарапов У.М., Примова Г.А., Сагдуллаева М., Расулова Н., Ахмедов А.Г. Морфология сосудов нижней конечности в условиях ишемии и на фоне экспериментального диабета // Вестник ТМА.-2014.-№2.С.34-37
4. Миршарапов У.М., Садикова С.Ш. Морфология сосудов нижней конечности при аллоксановом диабете // Морфология.-2012.-№3.С.105.
5. Павличенко С.Н., Кудрявцева Э.В., Арзамасцева Н.Е., Арзамасцев Е.В. Особенности фармакологического и токсического действия адреноблокаторов при экспериментальном стрептозотоциновом сахарном диабете// Кардиологический вестник.- 2010.-№ 2. С. 31-36.
6. Tack C.J., van Gurp P.J., Holmes C, Goldstein, D.S. Local sympathetic denervation in painful diabetic neuropathy // Diabetes. 2002. Vol. 51, No. 12. P. 3545-3553.

MORPHOLOGICAL CHANGES OF BRAIN STRUCTURES IN THYROID HORMONE DEFICIENCY

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Annotation. For the clinical part of the study, the results of the examination of 140 women with thyroid gland pathology and 80 healthy pregnant women, and for the experimental part of the study, the results of the morphological and morphometric examination of the brains of 222 rat children were obtained. In different periods of pregnancy, the main anatomical structures of the brain of the fetus, the width of the cavity of the clear membrane, the depth of the sylvian's cleft, the width of the lateral ventricles, the length of the corpus callosum in the 2nd screening period of pregnancy, and the transverse diameter of the cerebellum in the 3rd screening period were found to grow rapidly; Based on the obtained data, new regional percentiles were developed based on the study of the growth dynamics of anatomical indicators of the fetal brain.

Key words: brain, fetometry, hypothyroidism, screening

МОРФОЛОГИЧЕСКИЕ ИЗМЕНЕНИЯ СТРУКТУР МОЗГА ПРИ ДЕФИЦИТЕ ТИРЕОИДНЫХ ГОРМОНОВ

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Аннотация. Для клинической части исследования использованы результаты обследования 140 женщин с патологией щитовидной железы и 80 здоровых беременных, для экспериментальной части исследования - результаты морфологического и морфометрического исследования головного мозга 222 крысиных детей. были получены. В разные сроки беременности основные анатомические структуры головного мозга плода, ширина полости прозрачной оболочки, глубина силвиевых ворот, ширина боковых желудочков, длина паковкообразного тела в на 2-м скрининговом сроке беременности и поперечном диаметре мозжечка на 3-м скрининговом сроке отмечен быстрый рост; На основании полученных данных были разработаны новые региональные процентиля на основе изучения динамики роста анатомических показателей головного мозга плода.

Ключевые слова: головной мозг, фетометрия, гипотиреоз, скрининг.

QALQONSIMON BEZ GORMONI YETISHMASLIGIDA MIYA TUZILISHINING MORFOLOGIK O'ZGARISHI

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Annotatsiya: Tadqiqotning klinik qismi uchun qalqonsimon bez patologiyasi bo'lgan 140 nafar ayol va 80 nafar sog'lom homilador ayollarni tekshirish natijalari, eksperimental qismi uchun esa 222 ta kalamush bolalarning miyasini morfologik va morfometrik tekshirish natijalari qo'lga kiritildi. Homiladorlikning turli davrlarida homila miyasining asosiy anatomik tuzilmalari, shaffof membrana bo'shlig'ining kengligi, sylviev egatining chuqurligi, lateral qorinchalarning kengligi, ichida paketga o'xshash tananing uzunligi. homiladorlikning 2-skrining davri va 3-skrining davrida serebellumning ko'ndalang diametri tez o'sishi aniqlandi; Olingan ma'lumotlarga asoslanib, homila miyasining anatomik ko'rsatkichlarining o'sish dinamikasini o'rganish asosida yangi mintaqaviy foizlar ishlab chiqildi.

Kalit so'zlar: miya, fetometriya, hipotiroidizm, skrining

Relevance of the work: Currently, examination of the fetus by ultrasound is one of the important components of the examination performed during pregnancy. Ultrasound examination of organs and systems of the fetus during these periods allows to identify a large number of congenital malformations. In this case, it is very important to evaluate the structures of the brain of the fetus, because congenital defects of the central nervous system lead to the formation of disabilities in many children [1,2,11], and to death in every third child [4,6,7]. When performing an ultrasound evaluation of the fetal brain, it is of great importance to know the characteristics of its structure depending on the duration of pregnancy, which makes it possible to timely diagnose deviations in the development of brain structures [3,8,10]. During ultrasound examination during the 1st, 2nd and 3rd screening periods of pregnancy, all structures of the brain listed in the protocol must be assessed. In our republic, these structures include evaluation of the lateral ventricles of the brain, the large basin of the brain, the cerebrum, and the clear septal cavity [2,5,9]. In the screening procedure, it is recommended to evaluate these structures visually, without measuring their numerical values.

Materials and methods of research:The research results of 140 patients with thyroid pathology and 80 healthy pregnant women were obtained during 2019-2022. All for research selected pregnant women were strictly monitored. All pregnant women were in the age group of 20 to 35 years, and those with a body weight of 60 kg to 80 kg were selected for the study. Their anamnesis data were collected and singleton women in their first pregnancy without concomitant diseases were selected. Then, pregnant women were divided into 2 groups: the first group was the control group, which consisted of healthy pregnant women; the second group is the observation group, a group of pregnant women who were monitored by an endocrinologist and gynecologist at different periods of pregnancy and diagnosed with hypothyroidism, who started taking levothyroxine at a dose of 50 µg at different periods of pregnancy, since the lack of thyroid hormones was detected [11,12].

Pregnant women at 12-13 and 14-15 weeks (first screening), 20-21 weeks, 22-23 weeks and 24-25 weeks (second screening) , 30-31 weeks, 32-33 weeks and 34-35 weeks (third screening)) the sizes of the anatomical structures of the brain of the fetus were measured using the method of ultrasound diagnostics at the stages of examination. The following anatomical structures of the fetal brain were measured: the width of the cavity of the clear membrane, the biparietal size, the width of the lateral ventricles, the depth of the sylvian ridge, the transverse diameter of the cerebellum, the anterior-posterior size of the cerebellum.

Mathematical statistical analysis was performed using the data of the main fetometric dimensions of the fetus and regional percentiles were developed. Analysis of thyrotropin hormone and free thyrothyronine and thyroxine samples in serum of pregnant women was measured by direct chemiluminescent parametric technology. ECIIA chemiluminescent immunoassay immunochemical analyzers were used. Determination of thyrotropin hormone in the mother's blood is the main indicator in the diagnosis of thyroid gland dysfunction. Small changes in the concentration of free thyroid hormones also lead to opposite changes in the level of thyrotropin. In order to determine the daily rhythm of the thyrotropin hormone in the mother's blood, the maternal serum was taken and examined in the laboratory.

A total of 222 rat pups were used for the experimental part of our research work. 122 rat pups born from experimentally hypothyroid female rats and 100 rat pups from intact female rats were used for the study. The offspring of mother rats in both groups were studied on the 3rd, 7th, 14th, 21st and 28th days of postnatal ontogenesis.

Blood was taken from the tail vein of mother rats, and the amount of thyroid hormones was studied. The observation of various levels of metabolic disturbances in the body due to the lack of thyroid hormones is reported in the literature.

Baby rats were euthanized by decapitation on days 3, 7, 14, 21, and 28 after birth. Tissues were taken from different parts of the brain for histological examination. Brain tissue was fixed in 10% formalin solution, dehydrated in alcohol, and paraffin blocks were prepared. 8-12 μm histological preparations were prepared from the prepared paraffin blocks and stained by the hematoxylin-eosin method. Histological sections prepared on a rotor microtome with a thickness of 5-8 microns were stained with hematoxylin-eosin in a standard way.

The obtained data were determined in the statistical section of Microsoft Excel 2010 as the arithmetic mean M_n , the average error m of the relative sizes, and the accuracy coefficient t . Photomicrographs of histological preparations were captured using a CX40 model OD400 camera microscope.

Results and discussion: The indicators of the anatomical structures of the brain of the fetuses of healthy pregnant women were studied in dynamics during different periods of screening. Evaluation of the gap of the clear membrane in the fetus was determined in all of our observations. The width of the cavity of the fetal clear

membrane increased with the growing period of the fetus . When assessing the width of the diaphragm cavity, the cerebral hemispheres were studied in a symmetrical position at the level of the optic disc. On the basis of the obtained data, regional percentiles about the dimensions of the clear membrane space were created. In the 12-13th week of the 1 screening period, the width of the clear membrane was 1.9 ± 0.03 mm on average, and on average 3.2 ± 1.1 mm in the 14-15 week. In the 22nd - 23rd week of the 2nd screening period, the growth rate reached a high level and it was noted that it increased by 2.2 mm compared to the previous one, i.e. 20-21 weeks. By the 24th - 25th week, the width of the cavity of the clear membrane of the fetus has increased by 1.3 mm compared to the previous period. By screening period 3, it was observed that the width of the clear membrane increased on average by 1.8 mm compared to the indicator of 24-25 weeks of screening period, and at 35-36 weeks it was on average 11.9 ± 1.1 mm (10.8-12.4 mm). According to our plan, the biparietal dimensions of the fetuses of healthy women were measured and it was determined that they were related to the width of the hymen cavity. The biparietal dimension is measured across the two parietal bones of the fetus and is used to estimate fetal weight and gestational age. According to our data, it was found that there is a positive correlation ($r=0.9$) between the width of the fetal diaphragm and biparietal dimensions.

The width of the lateral ventricles was completely visible in all periods of the fetuses of the pregnant women we studied. The dimensions of the lateral ventricles were taken in the axial plane. In the fetuses of women in the control group, the width of the lateral ventricles at 12-13 weeks of screening period 1 was on average 3.9 ± 0.8 mm, and at 14-15 weeks it was from 3.5 mm to 4.9 mm, on average 4.3 ± 0.03 mm. It was found that the width of the lateral ventricles in the period of 20-21 weeks by the 2nd screening period was 4.6 mm to 5.8 mm, on average 5.2 ± 0.7 mm. This indicator showed an increase of 0.9 mm compared to 14-15 weeks of screening period 1. By the 22nd - 23rd week of the 2nd screening period, the width of the lateral ventricles increased by 0.8 mm, and it was noted that the minimum value was 5.4 mm and the maximum value was 6.9 mm. The average was 6.4 ± 0.05 mm. By the 24th - 25th week, the width of the lateral ventricles increased from 6.1 mm to 8.4 mm and was found to be 7.2 ± 0.12 mm on average.

We started measuring the length of the package body from the second screening period, because it was not possible to measure the length of the package body in the first screening periods.

By the second screening period, it was found that the length of the package-like body was equal to 11.6 ± 0.3 mm in the period of 20-21 weeks. By the 22nd - 23rd week of the 2nd screening period, the length of the package body increased reliably ($r<0.05$) by 1.7 mm and was on average 13.3 ± 0.05 mm. By the 24th - 25th week, it was determined that this indicator will be equal to 14.8 mm on average. As the gestation period increased, the length of the package body also increased. By the third screening

period, a 3.4 mm increase in the length of the packing body was observed. And on average 17.6 ± 0.03 at 30-31 weeks was equal to mm. At 32-33 weeks, this indicator is on average 19.8 ± 0.05 was found to be mm. At 35-36 weeks, the length of the package body had the highest growth rate ($r < 0.05$) (+2.6 mm) and the average length was 22.4 ± 1.1 mm.

We also assessed the position of the Sylvie's ethmoid to assess the development of the fetal brain. Sylvie egatin was seen in the fetuses of women in the control group from 16 weeks. Along with the increasing depth of the Sylvie egate, its shape also changed. By the 20th-21st week of the 2nd screening period, the angles of the Sylvie egate are flattened. By 22-23 weeks, Sylvie's edge formed a sharp corner. Later, as the gestation period increased, the angles of Sylvie's angle increased and it was determined that they were equal to 90° at 24-25 weeks. As the gestation period increases, the size of the Sylvie egatine increases, and its angle forms an obtuse angle and forms 135° at 32-33 weeks. Later, from 16 weeks, it was possible to determine in 70% of the studied fetuses. The analysis of the obtained data showed that there is a correlation between Sylvie egati and the duration of pregnancy. With the increase in the gestation period, the index of the depth of the Sylvie egate also increased. The analysis of our data showed that in the 12-13 weeks of the 1 screening period, the size of the Sylvie's egate was on average 7.65 ± 0.005 mm, and by the 14-15 weeks it was equal to 7.9 ± 0.07 mm. 2 during the 22-23 weeks of the screening period, an increase of 3.7 mm was found and averaged 11.5 ± 1.05 mm. By the 22nd - 23rd week of screening 2, the length of the package body increased by 2 mm and averaged 13.5 ± 0.09 mm. By the 24th - 25th week, it was determined that this indicator will be equal to 15 ± 1.3 mm on average. As the period of pregnancy increased, the length of Sylvie's skirt also increased. And at 30-31 weeks, the length of Sylvie egate is 18.3 ± 0.02 on average was equal to mm. At 32-33 weeks, this indicator is on average 19.8 ± 0.01 an increase of mm was noted. At 35-36 weeks, the length of the Sylvie egate had the highest growth rate and the average length was found to be 22.4 ± 1.3 mm.

We determined the measurement of the transverse diameter of the cerebellum from 14-15 weeks of the 1st screening period. During this period, it was determined that the transverse diameter of the cerebrum was from 8 mm to 10.2 mm, and its average value was 9.1 ± 1.2 mm.

10.9 ± 0.6 mm on average at 20-21 weeks of screening period 2. By 22-23 weeks, an increase in the transverse diameter of the cerebellum was observed up to 3.6 mm, and it was noted that it was equal to 14.6 ± 0.8 mm on average during this period. By 24-25 weeks, the diameter of the cerebellum increased by 3 mm and was found to be 17.6 ± 1.2 mm on average.

During the period of 3 screening periods, the growth rate of the diameter of the cerebellum had the highest values. By the 30-31 week period, a reliable ($r < 0.05$) increase in the diameter of the cerebellum by 7 mm compared to the previous period

was observed. By the period of 32-33 weeks, it was determined that the diameter of the brain of the fetus of healthy pregnant women increased reliably ($r < 0.05$) by 5.8 mm and was on average 30.5 ± 1.3 mm. By the end of the 3rd screening period, a decrease in growth rate was observed. Compared to the previous period, there was an increase of 3.1 mm at 35-36 weeks, and this indicator was equal to 33.6 ± 1.1 mm on average.

the diameter of the cerebellum, we developed regional percentiles. These percentiles are the 5th, 50th, and 90th percentiles, covering 90% of the normal population. The analysis of the obtained data showed that the diameter of the cerebellum increased as the gestation period increased. The highest growth rate occurred at screening period 3 (increased from 3.1 mm to 7 mm). The lowest growth rate occurred between the 1st and 2nd screening periods (increased by 1.8 mm).

We evaluated the changes of the clear membrane in the fetuses of women diagnosed with hypothyroidism according to three criteria:

- 1) Absence of the cavity of the clear membrane at all;
- 2) Widening of the hymen cavity compared to the fetus of healthy pregnant women
- 3) Absence of the wall of the hilar cavity.

The width of the cavity of the clear membrane in the fetuses of pregnant women with hypothyroidism was not significantly different from that of the control group during the 1st screening period at 12-13 weeks and was on average 2.0 ± 0.1 mm, and at 14-15 weeks - 3.3 ± 0.03 mm. In the fetuses of pregnant women observed during the 1 screening period, the width of the cavity of the clear membrane was not visualized in 25% of cases, and in 35% of cases the clear membrane was observed.

In the fetuses of pregnant women with hypothyroidism, the width of the lumen of the clear membrane by the 2nd screening period at the period of 20-21 weeks did not differ from that of the control group in 45% of cases and was on average 4.4 ± 0.02 mm. In 55% of cases, it was observed that the cavity of the clear membrane was wider by 0.9 mm compared to that in the fetuses of the control group of the same period, and this indicator was found to be equal to 5.0 ± 0.01 mm on average. By 22-23 weeks, the average of the clear membrane was 6.6 ± 0.06 mm. This indicator was found to be 1.2 mm wider than the control group at 22-23 weeks. By the 24th - 25th week, the width of the clear membrane was found to be 7.4 ± 0.09 mm on average. By this period, the width of the clear membrane was significantly ($r < 0.05$) 1.7 mm wider than that of the control group.

In fetuses of pregnant women with hypothyroidism, the width of the cavity of the clear membrane by the 3rd screening period in the period of 30-31 weeks did not differ from that of the control group in 45% of cases and was equal to 4.4 ± 0.08 mm on average. In 55% of cases, cases of expansion of the clear membrane cavity were observed, and this indicator was found to be equal to 5.0 mm on average. By 22-23 weeks, the width of the clear membrane was 5.9 ± 1.1 mm. This figure was observed

to be 16% wider compared to the control group at 22-23 weeks. By 24-25 weeks, it was found that the width of the clear membrane is from 4.5 to 7.9 mm, the average is 6.7 ± 0.8 mm.

Thus, in the screening period of 1 of the cases we observed, no difference was detected in the clear membrane cavity compared to the fetuses of healthy pregnant women. In the second screening period, in 20-21 weeks, 45% of cases did not differ from the control group, and in 55% of cases, the gap of the clear membrane was observed to be 0.9 mm wider than that of the fetuses of the control group of the same period. By 22-23 weeks, it was observed that the width of the clear membrane was 1.2 mm wider compared to the control group. By 24-25 weeks, the width of the clear membrane was determined to be 1.7 mm compared to the control group.

When the width of the lateral ventricles of the fetuses of women with hypothyroidism was studied, no reliable changes were observed during the 1st screening period compared to the control group. In this period, i.e. 1 screening, at 12-13 weeks, the width of the lateral ventricles was on average 4.1 ± 0.7 mm, and at 14-15 weeks - 4.5 ± 1.2 mm.

By screening period 2, the lateral ventricles of the fetal brain of women with hypothyroidism were found to be larger in 32% of cases at 20-21 weeks than in the control group, and the width ranged from 5.3 mm to 7.3 mm, with an average of 6.9 ± 0.2 mm. was determined. By the 22nd - 23rd week of the 2nd screening period, it was found that the width of the lateral ventricles increased reliably ($r < 0.05$) than in the control group and was on average 8.7 mm (from 6.5 to 9.2 mm). By 24-25 weeks, the width of the lateral ventricles increased by 2.4 mm compared to the control group and averaged 9.6 mm (range 9 to 10.8). A total of 23% of the cases observed by us showed a separate enlargement of the lateral ventricles, and in 77% of the cases, both ventricles were simultaneously enlarged.

By 3 screening periods, the lateral ventricles of the fetuses of women with hypothyroidism were found to be significantly ($r < 0.05$) larger at 20-21 weeks than those of the control group, and the width ranged from 5.3 mm to 7.3 mm, with an average of 6.9 ± 0.02 mm was found to be equal. By the 22nd - 23rd week of screening, it was found that the width of the lateral ventricles increased reliably ($r < 0.05$) than in the control group and was on average 8.7 mm (from 6.5 to 9.2 mm). By the 24th - 25th week, the width of the lateral ventricles was observed to increase by 2.4 mm compared to the control group and was equal to 9.6 ± 0.2 mm on average (min 9 to 10.8). A total of 15% of the cases observed by us showed a separate expansion of the lateral ventricles, and in 75% of the cases both ventricles were simultaneously expanded. In 30% of cases monitored in dynamics, both ventricles were dilated.

With the increase in the gestation period, the index of the depth of the Sylvian fissure also increased. It was found that the depth of the Sylvian fissure did not exceed 4-5 mm compared to the control group. During the 2nd screening period, in 25% of cases,

the shape of the sylviev's uterus did not correspond to the gestation period of the fetus. In the period of 30-31 weeks of the 3 screening period, it was found that in 3 fetuses, expansion of the lateral ventricles and the incompatibility of the shape of the sylviev's egate were found together.

During the macroscopic study of the brain, the smoothness of the egates and pus of the brain indicated an increase in fluid in the brain tissue. In different periods of the experiment, different microscopic changes were observed in the brain tissue. Changes in the blood vessels of the brain were observed from the 7th day of postnatal ontogeny.

By the 14th day of the experiment, swelling in the perivascular area of the hemispheres of the brain, accumulation of fluid around the capillaries was detected. Dystrophic changes were observed in blood vessels, blood coagulation and endotheliocytes. The appearance of small vacuoles was observed in astrocytes and oligodendrogliaocytes (Fig. 1).

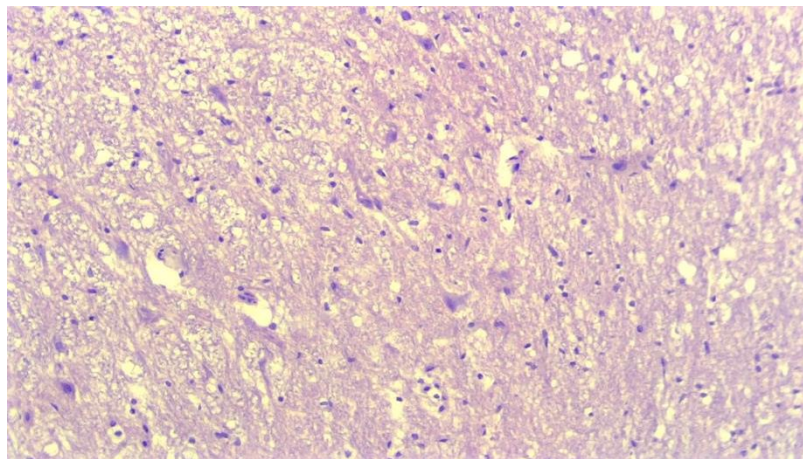
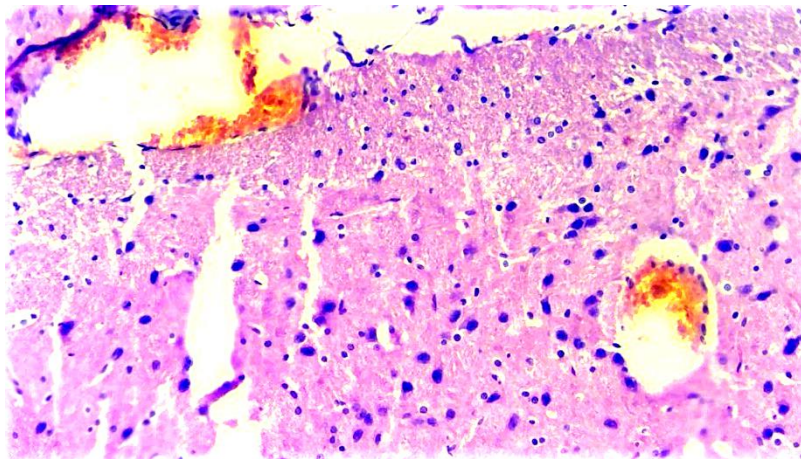


Figure 1. In the white matter of the brain, cell reduction and vacuolization are seen. Staining: hematoxylin-eosin. X: ok.10, ob 20

By the 21st day of the experiment, an increase in pervascular and pericellular swelling in the brain was observed. It was found that a cavity filled with a small volume of liquid appeared in the white matter of the brain. Lysis of nerve cells and fibers is observed in this branch of the brain. Vacuoles appear in the cytoplasm of nerve cells, the borders of the cells are not clear. Lightening of the cytoplasm of cells was observed due to tigrolysis. It can be seen that the nuclei of the cells are hyperchromic, basophilic, and have an angular shape. A tumor of glial cells was detected. Astrocytes and oligodendrogliaocytes are vacuolated. The nucleus is pyknotic. Tumors of glial cells were detected. Fibrillation of nerve fibers was observed, accumulation of edema fluid between fibrils was observed. changes were more pronounced in the white brain compared to the cerebral cortex.

By the 28th day of the experiment, an increase in pervascular and pericellular swelling in the brain was observed. It was found that a cavity filled with a small volume

of liquid appeared in the white matter of the brain. Lysis of nerve cells and fibers is observed in this branch of the brain. Vacuoles appear in the cytoplasm of nerve cells, and the boundaries of the cells are not clear. Lightening of the cytoplasm of cells was observed due to tigrolysis. It can be seen that the nuclei of the cells are hyperchromic, basophilic, and have an angular shape. Tumor of glial cells was detected. Astrocytes and oligodendrogliaocytes are vacuolated. The nucleus is pyknotic. Tumors of glial cells were detected. Fibrillation of nerve fibers was observed, and accumulation of edema fluid between the fibrils was observed (Fig. 2). The observed changes were more pronounced in the white brain compared to the cerebral cortex.



**Figure 2. Dampness in blood vessels, edema in the perivascular area.
Staining: hematoxylin-eosin. X: ok.10, ob 20**

Morphometric examinations showed a decrease in the area of nerve cells and nerve cells per 1 mm^2 with deepening of the process in the case of experimental hypothyroidism. It was found that the number of nerve cells in the brain of the control group was 214.3 ± 10.2 , and the area of the nucleus of nerve cells was $192.3 \pm 5.1 \mu\text{m}^2$. In the experimental group, these indicators were not significantly different. It was noted that the number of nerve cells in the brain of rat children in the experimental group was 212.3 ± 9.6 per 1 mm^2 and the area of the nucleus of nerve cells was $191.9 \pm 6.3 \mu\text{m}^2$.

By the 14-day period, it was observed that the number of nerve cells in the brain of the experimental group was 209.6 ± 7.5 per 1 mm^2 , and the area of the nucleus of nerve cells was equal to $180.1 \pm 5.6 \mu\text{m}^2$. During this period, compared to the control group, the number of nerve cells decreased by 2%, and the area of the nucleus of nerve cells decreased by 6%.

By the 21st day of the experiment, it was observed that the number of nerve cells in the brain of rat children was 186.9 ± 11.6 per 1 mm^2 , and the area of the nucleus of nerve cells was equal to $170.3 \pm 7.2 \mu\text{m}^2$. During this period, compared to the control

group, the number of nerve cells decreased by 14%, and the area of the nucleus of nerve cells decreased by 12%.

By the 28th day of the experiment, the number of nerve cells decreased by 31%, and the area of the nucleus of nerve cells decreased by 20%.

CONCLUSIONS

A complete assessment of the fetal brain occurs at 15-16 weeks of pregnancy. The most intensive period of measurements of anatomical structures of the brain of healthy female fetuses (20-21, 22-23, 24-25 weeks) corresponded to the 2nd screening period. Data on the size of the brain of the fetus of healthy pregnant women and the developed percentiles will be a guide in the assessment of the size of the anatomical structures of the brain of the fetus. Fetometric indicators of fetuses of hypothyroid women are statistically ($R < 0.05$) greater than those of healthy pregnant women. The expansion of the cavity of the clear membrane of the fetus was observed in 80% of the cases, and the expansion of the lateral ventricles was observed in 40% of the cases. These changes were especially evident during the 2nd screening period. During the 2nd screening period, in 25% of cases, the shape of the Sylvius's ventricle did not correspond to the gestation period of the fetus. It was found that the depth of the Sylvius's ventricle did not exceed 4-5 mm compared to the control group. During the 2nd screening period, in 25% of cases, the shape of the Sylvius's ventricle did not correspond to the gestation period of the fetus. In the period of 30-31 weeks of the 3 screening period, it was found that in 3 fetuses, expansion of the lateral ventricles and the incompatibility of the shape of the Sylvius's ventricle were found together. In the case of experimental hypothyroidism, swelling of connective tissue fibers, tearing of collagen fibers, compression of cells with swelling material, deformation and atrophy develop.

References:

1. Albu, D.–F. A Dandy – Walker variant prenatally diagnosed using ultrasound on one of the fetuses of a twin pregnancy obtained through in vitro fertilization /D.–F. Albu, C.–C. Albu, S.–D. Albu // International Journal of Medical Research and Review. - 2015. - Vol. 3, No. 3. - P. 127-131.
2. Bar – Yosef, O. Neurodevelopmental outcome of isolated ventriculomegaly: a prospective cohort study / O. Bar – Yosef, E. Barzilay, S. Dorembus [et al.] // Prenat. Diagn. - 2017. - Vol. 37. - P. 764-768.
3. Blinov, A.Yu. Fundamentals of ultrasonic fetometry / A.Yu. Blinov, M.V. Medvedev. - M.: Real Time, 2012. -- 136 p.
4. Carseldine, W. Antenatal diagnosis of a fetal dural venous thrombosis / W. Carseldine, F. Park, C. Abel [et al.] // Ultrasound Obstet. Gynecol. - 2013. –Vol. 42, No. 1. - P. 151.

5. Esetov, M.A. Echography of the central nervous system of the fetus. Intermediate sail cavity: own observation and literature review / M.A. Esetov, G.M. Bekeladze, E.M. Huseynova // *Prenat. Diagn.* - 2015. –T. 14, no. 1. - pp. 46–51.
6. Malanina, E.N. Prenatal diagnosis of a rare syndrome with a wide range of brain malformations: case description, differential diagnosis, literature review / E.N. Malanin, D.R. Kasymova, R.R. Azizova [and others] // *Prenat. Diagn.* - 2011. - T. 10, No. 2. - P. 138-145.
7. Medvedev, M.V. Prenatal echography. Differential diagnosis and prognosis / M.V. Medvedev. - 3rd ed. - M.: Real Time, 2012. -- 464 p.
8. Mirsharopov U.M.; Usmonov R.J.; Teshaev O.R. Mirzamuhamedov O.Kh. Akhmedova S.M. et al. Morphological change of myocardium in hypothyroidism // *Central Asia Journal of Medicine* – 2020, № 1 – p. 71–83.
9. Mirzamukhamedov O.Kh., Mirsharopov U.M., Sodikova Z.Sh., Akhmedova S.M., Khatamov A.I., Mirzabekova O.A. Especially the development of myocarditis in hypothyroidism in postnatal ontogenesis // *Indian Journal of Forensic Medicine & Toxicology* – 2020, Vol. 14, № 4 – p. 7737–7745.
10. Trofimova, T.N. Beam research of the fetal and newborn brain / T.N. Trofimova, A.S. Job, D.V. Voronin [and others] // Ed. Trofimova T.N. - SPb.: Baltic Medical Educational Center, 2011. -- 196 p.
11. Voevodin, S.M. Differential diagnosis of diseases and malformations of the central nervous system and face in the fetus: dis. ... doct. medical sciences / Voevodin Sergey Mikhailovich. - M., 2012. -- 312 p.
12. Chiu, T.H. A Retrospective study on the course and outcome of fetal ventriculomegaly / T.H. Chiu, G. Haliza, Y.H. Lin [et al.] // *Taiwanese Journal of Obstetrics & Gynecology.* - 2014. - Vol. 53. - P. 170-177.

QORAQALPOQ RAQS MAKTABINING VUJUDGA KELISHIDA ELEZAVETA ARTYOMOVNA PETROSOVANING O‘RNI

N.M.Abdiramanov

*O‘zDXA Urganch filiali “Xalq sahna raqslarini
o‘rganish uslubiyoti” fani o‘qituvchisi*

Annotatsiya: maqolada Qoraqalpoq raqs maktabining vujudga kelishida Qoraqalpoq sahna raqsining asoschilaridan biri, O‘zbekiston va Qoraqalpog‘iston xalq artisti Elezaveta Artyomovna Petrosovaning qilgan say-harakatlari, samarali mehnati, qoraqalpoq xalqining o‘ziga xos milliy qiyofasi, xususiyati, fazilati, fe‘l-atvori, ma‘naviy olamining o‘ziga xosligi haqida ma‘lumotlar berilgan. Shu bilan birga qoraqalpoq raqs san‘atining kecha va bugungi kundagi holati, raqslarning xilma xilligi, asosiy qo‘l va oyoq holatlari to‘g‘risida so‘z yuritilgan.

Kalit so‘zlar: xalq raqsi, raqs maktabi, syujetli raqs, “Ayqulash”, “Qirq qiz”, “Salma”, “aydinli”, harakat.

Аннотация: в статье описаны усилия, плодотворная деятельность Елизаветы Артёмовны Петросовой, одной из основоположниц каракалпакского сценического танца, народной артистки Узбекистана и Каракалпакстана, неповторимый национальный образ, особенности, достоинства, характер, характер каракалпакского народа в творчестве. каракалпакской танцевальной школы. Дана информация об уникальности духовного мира. В то же время обсуждалось состояние каракалпакского танцевального искусства вчера и сегодня, разнообразие танцев, основные положения рук и ног.

Ключевые слова: народный танец, школа танцев, сюжетный танец, «Айкулаш», «Сорок девушек», «Салма», «Айдинли», движение.

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Har bir xalqning milliy raqs ijro usullari o‘z xalqining milliy ornamentlarini o‘zida mujassam aylab, uning aynan qaysi xalqqa tegishli ekanligidan darak beradi. Bunda ularning dastlabki ta‘lim oluvchi raqs maktablari katta ahamiyat kasb etadi.

Hammamizga ma'lumki, O'rta Osiyo xaqqlari orasida san'at sohasiga e'tiborning kuchayib, qiziqishlarning ortib borishi, shu o'rinda milliy raqs san'atining rivojlanish bosqichlari hamda raqs maktablarining vujudga kelishi XIX asr oxirlari XX asr boshlariga to'g'ri kelishini ko'rsatadi. Bu san'atimizning tarixiy taraqqiyot jarayonlari Yevropa klassik maktablari bilan solishtirganda birmuncha kechroq rivojlanganligi ko'zga tashlansada, professional teatr san'ati bilan o'zlashtirilgan sahna raqs san'ati XX asrda paydo bo'lib, qisqa davr ichida o'zining bor bo'y-bastini namoyon etdi.

Bugungi kundagi san'atimizning har bir sohasi, shular qatori milliy raqslarimizning o'ziga xos ijro usullaridagi sahnaviy ko'rinishlari dunyo xalqlarini hayratga solib, lol qoldirib kelmoqda.

Raqslarimizning bu darajada keng miqyosda rivojlanishida milliy raqs maktablarimizning o'rni o'ziga hos ahamiyat kasb etadi.

Qoraqalpoq milliy xalq sahnaviy raqslarining rivojlanishida Toyirov, Tamara Ibrohimova, Ali Ardobus Ibragimov, Rima Adikova va boshqa ko'plab raqs ustalarining o'rni katta. Ular orasida Qoraqalpoq sahna raqsining asoschilaridan, O'zbekiston va Qoraqalpog'iston xalq artisti Lizaxonim Petrosovaning xizmatlari alohida ahamiyat kasb etadi. Lizaxonim Petrosova ilk bora 1956-1959-yillar oralarida xalq sahna raqslarini tadqiq qilib, yangidan milliy raqs asarlarini yaratish ustida astoydil ish olib bordi. L.Petrosovaning qoraqalpoq xoreografiyasi taraqqiyoti yo'lida qilgan xizmatlari qoraqalpoq raqs san'ati tarixida katta iz qoldirgan desak mubolag'a bo'lmaydi. Chunki Elezaveta Artyomovna Petrosyan (taxallusi-Lizaxonim)1913-yil yurtimizning betakror shaharlaridan biri bo'lgan, ya'ni Marg'ilon shahrida dunyoga keladi. U teatr, filarmoniya va ansambllarda dastlab aktrisa, ashulachi va raqqosa sifatida o'z faoliyatini olib boradi. Hayotiy tajriba va ustozlarining maslahatlari bilan oldiga aniq bir maqsad qo'yib, san'atning raqs yo'nalishida o'z yo'lini topadi.

Elezaveta Artyomovna 16 yoshdan boshlab Andijondagi teatrda o'z faoliyatini yuritib, ustozlarining ta'lim-tarbiyasi asosida katta raqs asarlarini yaratadi. Vaqt o'tib o'zi mustaqil ravishda Andijon teatrda va O'zbekiston davlat filarmoniyasida baletmeysterlik faoliyatini olib boradi. Shu yillar davomida "*Qozoqcha massali raqs*", "*Tanovor*", "*Qora sochim*", "*Pilla*", "*Sini-xiroj*", "*Pomircha*", "*Farg'onacha bayramona*", Ye.Baranovski bilan birgalikda "*Hosil bayrami*" singari yakka va ommaviy, sodda va murakkab syujetli raqslarni sahnalashtirib kelgan. Izlanishlari natijasida O'zbek ashula va raqs ansambli dasturiga qoraqalpoq raqsini ham qo'shish maqsadida "Qoraqalpoq to'yi" raqsini yaratadi. 1956-yil Qoraqalpog'iston adabiyoti va san'atini Toshkent shahrida o'tadigan dekadasiga tayyorlash maqsadida Nukus shahriga yordamga keladi. Bu voqea qoraqalpoq raqsining rivojlanishiga sabab bo'ldi. Shu yili Qoraqalpog'iston filarmoniyasi qoshida ashula va raqs ansambli tashkil etilib, unga Lizaxonim Petrosova bosh baletmeyster hamda badiiy rahbar etib tayinlandi. Qoraqalpoq milliy raqs maktabi bir necha yillar davomida shakllanib, rivojlanib kelgan

bo'lib, 1963-yili Nukusda Madaniyat va san'at texnikumida qonuniy faoliyati tashkil etiladi.

L.Petrosova bir o'rinda shunday yozadi: "qisqa vaqt ichida olis rayonlarda bo'lib, namat bosuvchi artellarni ko'rdim, Amudaryo va Orol baliqchilari bilan tanishdim, to'r to'qishni o'rgandim, baliqchilarning ashula va dostonlarini tingladim, muzeylarda, to'y va boshqa marosimlarda bo'ldim"¹.

Lizaxonim Petrosova shu yillar davomida qoraqalpoq xalqi hayotidan "To'y", "Ilme sultan", "Chavondoqlar", "Amudaryo", "Shunday kuldim", "Ayqulash", "Oq oltin" vals, "Qirq qiz", "Uloq", "Nozli" "Baliqchilar", "Kiyiz basiu"(namat bosish), "Cho'ponlar", "Xalqlar do'stligi", "Bog'bon yigitga" raqslarni sahnalashtirgan. Bu raqslar tezda fursatda xalqimiz orasida tanilib, qoraqalpoq xalqi turmushida mustahkam o'rin egallaydi.

1957-yili Liza Petrosova rahbarligidagi bu ansambl repertuaridagi raqslar bilan jahon yoshlari va studentlarining Moskvada bo'lib o'tgan festivalda qatnashgan va kumush medal bilan mukofotlangan. Uning bunday yuksak cho'qqilarni zabt etishida raqs yaratishda boshqacha, o'ziga xos yo'lni tanlagani sabab bo'ldi.

L.Petrosova ma'lum bir mavzu asosida raqs yaratar ekan, uning zamiriga qoraqalpoq xalqiga hos bo'lgan va azaldan davom etib kelayotgan milliy-madaniy urf-odatlaridan kelib chiqqan holda raqs shaklini yaratadi. Har bir qo'l-oyoq holatlarida hayvon va qush hamda milliy naqsh chiziqlaridan kelib chiqib, alohida nom bilan ataydi. Shuningdek ijro etiluvchi xarakterlarni ham shular asosida shakllantirib, nomli harakatlar yaratadi. Bu ishlarni amalga oshirishda ulardagi ishtirokchilarning barchasi shu soha mutaxassisi bo'lmasa-da, lekin ulardagi qiziqishning kuchliligi yangidan-yangi raqs asarlarining yaratilishiga zamin yaratdi. Mana shu faktlar Liza Petrosovaning qoraqalpoq qo'shiq hamda raqs ansamblini tuzishdagi xizmati, xoreografiya san'atini rivojlantirishdagi salmoqli hissasi bo'ldi.

Lizaxonimga raqs jamoasini tuzishdek mas'uliyatli ishni muvaffaqiyatli bajarishda xalq ijodiyoti namoyondalari katta yordam ko'rsatdi. Ular orasida o'sha paytdagi ashulachilar, bastakorlar, rassomlar va qishloqlardagi san'at muxlislari qo'llaridan kelgan yordamlarini ayashmadi. Shu sababli ham qoraqalpoq raqsi Lizaxonim Petrosova rahbarligida san'atsevar xalq tomonidan kashf etilgan.

Lizaxonim qoraqalpoq raqsini yaratishda o'zbek raqs san'atining taraqqiyot bosqichlarini yaxshi bilganligi qo'l keldi. Natijada Farg'ona, Buxoro, Xorazm raqslaridan keskin farqlanuvchi yangi va jozibador qoraqalpoq milliy raqsi dunyoga keldi.

Qoraqalpoq raqsining dastlabki ijodkorlari va ijrochilari birinchi chiqishlarini ommabop xalq qo'shiqlari bilan namoyish qildi. Ilk bor tomoshabinlar huzurida o'z san'atlarini ko'rsatishganida raqsning o'zini emas, balki uni xalq qo'shiqlari bilan

¹ Е. А. Петросова "Каракалпакский танец " Издательство литературы и искусства имени Гафура Гулама Ташкент-1976. 227 бет

bog‘lab, moslashtirib ijro etganlar. “Kigiz basu”, “Ilme sultan” kabi o‘zida xalqning an’anaviy mehnat va o‘yinlarini, rasm-rusumlarini tarannum qiluvchi raqslar shular jumlasidandir. To‘y-tomoshalarda ijro etiladigan raqslar ijodkorlarga birmuncha qulayliklar yaratdi. Sababi bu raqslarning deyarli barchasi mehnat jarayonini aks ettiruvchi harakatlar, liboslar ijrochilar va tomoshabinlar uchun yaxshi tanish edi. Baletmeyster A.A.Ibragimov sahnalashtirgan raqslarning mazmuni va xarakterida qoraqalpoq xalqining to‘g‘riso‘zligi, mardligi shartli ramziy ma’noda yaratilgan bo‘lsa, L.Petrosova xalqning psixologik jihatlari bilan urf-odatlarining go‘zal va nozik tomonlariga ko‘proq e’tibor qaratgan. Manbalarga asosan qoraqalpoq raqsining asosiy shakllari xalq ijodida ko‘zga tashlanadigan naqshlardan olingan. Masalan “Salma”, “Aylanma”, “Quu moyin”, “Qoshqar muyiz” holatlari. Elizaveta Petrosova “Qoraqalpoq raqsi” kitobida: “Men qoraqalpoq raqsidagi qo‘l harakatlarini asosan, naqshlardan olganman”² deb aytib o‘tgan. Bu borada uning davomchilaridan biri, baletmeyster P.Madreymov esa bu kitobdagi qo‘l harakatlarini xalq naqshlaridan olingan degan fikrga unchalik qo‘shilmaydi, hatto ba’zi bir harakatlarni qayta ko‘rib chiqish kerak, deb ta’kidlab o‘tadi.

L. Petrosova 1956-1970-yillarda Berdaq nomidagi Qoraqalpog‘iston davlat filarmoniyasi qoshidagi ashula va raqs ansambli va K.S.Stanislavskiy nomli musiqali drama va komediya teatrida faoliyati davomida ko‘plab qoraqalpoq milliy xalq sahna raqslarini yaratadi. Vaqt o‘tishi bilan Lizaxonimning qoraqalpoq raqsi san’ati borasida to‘plangan barcha bilim va tajribalari yig‘indisi 1976-yilga kelib G‘afur G‘ulom nomidagi adabiyot va san’at nashiryoti tomonidan “Qarakalpakskiy tanets” deb nomlanuvchi kitobining nashr etilishiga sabab bo‘ldi.

Hozirgi kunda qoraqalpoq milliy raqslarini o‘qitishda E.A. Petrosovaning metodik qo‘llanmasi raqs o‘qituvchilari uchun asosiy ish quroli sifatida foydalanib kelinmoqda.

Qo‘llanmada Farg‘ona, Buxoro, Xorazm raqs maktablaridan farqli o‘laroq har bir qo‘l holatiga alohida nom berilib, 14 ta qo‘l va 5 ta oyoq asosiy holat qilib tizimlashgan. Ular quyidagicha tasvirlangan: Qo‘l kaftining bir nechta ko‘rinishi mavjud bo‘lib, yigitlarda: a) qo‘l kafti va barmoqlar orasi ochiq; b) qo‘l panjasi musht yoki yarim musht holatda; c) qo‘l panjalari kafti ochiq; d) barmoqlar bir-biriga yopishgan holatlardir.

Har bir qo‘l kafti ko‘rinish usullarida qo‘lning bilak bo‘g‘ini (kist) tepaga, pastga bukish va to‘g‘ri qilib ochish usullari mavjud. Qizlarda ham qo‘lning bilak bo‘g‘ini bajarilish jihatdan yigitlarniki kabi bo‘lib, ular orasidagi farq esa barmoqlarning ochilishi va egilishi hamda kaftlarining yopilishida bo‘ladi.

Qizlarda bosh barmoq (1chi) bilan o‘rtancha (3chi) barmoqlar bir-biriga tegar-tegmas bo‘lib egiladi. Yigitlarda kaftlar musht qilib yopiladi. Lekin raqs ijrosi paytida

² E. A. Петросова "Каракалпакский танец " Издательство литературы и искусства имени Гафура Гулама Тошкент-1976 16-бет.

asosiy holat chizig'i saqlanib, yuqorida aytib o'tilgan asosiy ko'rinishlardan foydalangan holda harakatlarga o'zgartirishlar kiritish mumkin.

Asosiy qo'l holatlarini ijro etish jarayonida hamma vaqt qo'l holatlarida qizlarning barmoq uchlari odatdagidek birinchi va uchinchi barmoqlar bir-biriga tegar-tegmas yaqin bo'lib, yigitlarda esa faqat "shag'ala" to'rtinchi holati va 13-holatning a) qalash, b) baliq quyriq, s) go'rek deb nomlanuvchi holatlarida kaft va barmoq uchlari ochiladi.

"Salma" tayorlanish holati. Bunda qo'llar erkin bo'lib pastga tushirilgan gavdaning yon qismidan qo'llarning bilak bo'g'ini tashqi tomoni tirsaklar bukilgan holda yon tomondan belga tushadi. Qo'l kafti va barmoqlar yigitlarda musht, qizlarda esa birinchi va o'rtancha barmoqlar tegar-tegmas yaqin egilgan bo'ladi.

Har bir xalqning sahnaviy raqs ko'rinishlari o'zining milliyligi bilan bir-biridan tudan farq qilib, faqatgina o'sha xalqqa xos va mos bo'lgan holda alohida ajralib to'radi. Raqs ijrosidagi holat va harakatlardagi o'xshash jihatlarni ko'zatish, hozirgi kunda tabiiy bir holga aylanib bormoqda. Bunday jarayonni raqs ijrosidagina, emas balki uni o'qitish maktablarida ham kutishimiz mumkin. Gapimiz isboti sifatida qoraqalpoq raqs maktabidagi asosiy qo'l holatlarini, o'zbek hamda gruzin raqs maktablarining ayrim o'xshash va farqli jihatlarni misol keltirib o'tishimiz mumkin.

Qoraqalpoq raqs maktabining asosiy 2 qo'l holatini R.Karimovning o'bek milliy raqs maktabining Farg'ona yo'nalishidagi asosiy 1-qo'l holatiga, D.D Javrihviliyning 1975 yil Tbilisi shahrida nashrdan chiqqan "Грузинские народниие танци" deb nomlanuvchi kitobidagi gruzin raqs maktabining asosiy 1 qo'l holatlariga o'xshatish mumkin. Barmoq uchlari, kaft va bilak bo'g'inida ayrim o'ziga hos farqlar bo'lib, ularning ikki yon tarafga, yelka balandligida ochilishida deyarli farq sezilmaydi. Bundan tashqari qoraqalpoq raqs maktabidagi bir qo'l yelka bo'ylab yon tomonga ikkinchi holatda ochilishi, ikkinchi qo'l yon tomondan tepaga uchinchi holatga ko'tarilishi, o'zbek va gruzin raqs maktabining 3 asosiy qo'l holati deb nomlanishi mumkin. Qoraqalpoq raqs maktabidagi ikki yon tomondan yuqoriga, yarim aylana shaklida ko'tariluvchi "qoshqar mo'yiz" deb nomlanuvchi 3-asosiy qo'l holati, o'zbek raqs maktabining 2-asosiy qo'l holati bilan o'xshash jihatini, gruzin raqs maktabidagi "magali" yoki "irmula" deb nomlanuvchi 4 asosiy qo'l holati bilan deyarli farq yo'qligini kuzatishimiz mumkin. Shuningdek, asosiy qo'l holatlarida faqli jihatlarga ham alohida e'tibor qaratish lozim. Xususan, qoraqalpoq milliy raqsining metodik qo'llanmasida boshqa xalq raqs maktabida taktoranmas ko'rinishlari mavjud. Bulardan 8-"Belbeu", 9-"Aydinli", 10-"Yinagash", 10-"Putaisa", 11-"Shak-shakli tajim", 12-"Tuyinshik", 13-"Balik quyriq", "Qalash", "Korek" deb nomlanuvchi asosiy qo'l holatlarini aytishimiz mumkin.

Xulosa o'rnida shuni aytish mumkinki, bularning asoschisi hisoblanmish Lizaxonim Petrosova bu holatlarni yaratish maqsadida avvalo shu xalqning milliy urf-

odati, tabiati bilan yaqindan tanishib, shular asosida milliy raqsning asosiy qo‘l holat va harakatlarini yaratishga muvoffaq bo‘lgan.

Foydalanilgan adabiyotlar:

1. Avdeyeva L.A. O‘zbekiston raqs san’ati. -T.: GIXL, 1966.
2. Е. А. Петросова “Каракалпакский танец” Издательство литературы и искусства имени Гафура Гулама Тошкент-1976
3. Qodirov M.X. O‘zbek xalq tomosha san’ati. -T.: O‘qituvchi, 1981.
4. Avdeyeva L.A. O‘zbek milliy raqsi tarixidan. -T.: M.Turg‘unboyeva nomidagi “O‘zbekraqs” milliy raqs birlashmasi, 2001.

XORAZM RAQS SAN'ATI TARIXI VA "SURNAY LAZGI"

Sh.N.Samandarova

O'zDXA Urganch filiali "Lazgi" bo'limi katta ilmiy xodimi

Annotatsiya: maqolada Xorazm raqs san'atining shakllanish tarixi, ibtidoiy jamiyatdagi kishilarning yashash tarzi bilan bog'liq holda vujudga kelganligi, qadimgi raqs san'ati haqidagi insonlarning fikr-o'ylari haqida ma'lumotlar beriladi. Shu bilan birga "Surnay lazgi"ning yaratilish tarixi, ijro uslubi va sunray cholg'u asbob to'g'risida so'z yuritiladi.

Kalit so'zlar: Raqs san'ati, "Avesto", Sarmishsoy, "Shoxlar zali", "G'alaba zali", sunray, "Surnay lazgi", Zuvoniy, "Rotollo".

Аннотация: в статье представлены сведения об истории становления танцевального искусства Хорезма, его возникновении в связи с образом жизни людей в первобытном обществе, мнениями людей о древнем танцевальном искусстве. Одновременно будет обсуждаться история создания «Сурнай лазги», стиль исполнения и музыкальный инструмент «Сунрай».

Ключевые слова: Танцевальное искусство, «Авеста», Сармишсай, «Шохлар зали», «Галаба зали», санрей, «Сурнай лазги», Зувоний, «Ротолло».

Abstract: the article provides information about the history of the formation of Khorezm dance art, its emergence in connection with the way of life of people in the primitive society, people's opinions about ancient dance art. At the same time, the history of creation of "Surnay lazgi", performance style and sunray musical instrument will be discussed.

Keywords: Dance art, "Avesta", Sarmishsay, "Shokhlar zali", "Galaba zali", sunray, "Surnay lazgi", Zuvoniy, "Rotollo".

O'zbek raqs san'atining qadimiyligi haqida so'z yuritganimizda uning kelib chiqish tomirlari insoniyatning dastlab tabiat bilan kurashi, sivilizatsiya va madaniy manbalar tarixining boshlanishi bo'lgan ibtidoiy jamoa tuzimi davriga borib taqaladi. Qadimgi raqs san'ati haqidagi insonlarning fikr-o'ylari, diniy marosim va urf-odatlarda ijro etilgan raqs asarlari miloddan avvalgi I ming yillikka oid yozma manbalarda, Zardushtiylik dinining muqaddas kitobi "Avesto" bitiklarida, Persopel yaqinidagi Behistun qoyatoshlarida, miloddan avvalgi V-II ming yilliklarga oid Sarmishsoy qoyatosh bitiklarida va boshqa manbalarda saqlanib qolgan. Bu obidalardan ayon bo'ladi-ki, raqs san'atining ilk yaralish manbalarini O'rta Osiyo tuprog'idan va shu davrda yashagan qadimiy xalqlarning ijtimoiy hayotidan, milliy xususiyat va tabiatidan qidirishga da'vat qiladi. Tarixchi etnograf olimlarning o'rganishicha, umuman san'atning va undan o'sib chiqqan barcha turlarining bosh manbayi, asl zamiri, ilk chashmasi-mehnat ekanini ko'rsatadi. Shunday ekan, ibtidoiy jamiyat san'atining kelib

chiqish manbalarini (raqs san'atini ham) dastlab mehnat jarayonidan, ibtidoiy jamoa kishisining ishlab chiqarish faoliyatidan vujudga kelgan desak mubolag'a bo'lmaydi.

Raqs san'ati ibtidoiy jamiyatdagi kishilarning yashash tarzi bilan bog'liq holda vujudga kelgan. Ular ko'pincha yovvoyi hayvonlarni tutish uchun hayvon terilarini kiyib, ularning qiyofasida yovvoyi hayvonlarga yaqinlashganlar. Odamlar hayvonlarning qiliqlarini qilib, ularga o'xshab ovoz chiqarganlar va ularni ushlab olish maqsadida jismoniy harakatlar qilgan. Bu harakatlar orqali o'zidagi epchillikni namoyon qilib, o'zlari o'ylamagan holda turli raqs harakatlarini yaratganlar. Bunday qadimiy raqs harakatlarini Xorazm raqs san'ati ijrochilari o'zlarining milliy raqslari ijrosida hozirgacha saqlab kelayotganligini ko'rishimiz mumkin.

Bugungi kungacha olib borilgan ilmiy tadqiqodlar natijalaridan ko'rishimiz mumkinki, qadimiy Xorazm xalqining o'tmishi naqadar buyuk davlat bo'lganligini anglashimiz ayni haqiqatdir. Chinakam tarixni katta haqiqatlar yaratadi. O'rta Osiyo hududidagi Sarmish tog'laridagi, Sarmishsoy qoyatosh bitiklarida tasvirlangan suratlarda o'sha haqiqatning zarralarini ko'ramiz.



Sarmishsoy qoyatosh suratlari

Sarmishsoy qoyatosh bitiklarida tasvirlangan suratlar eramizdan avvalgi birinchi ming yillik yodgorliklari hisoblanadi. Qoyatoshdagi tasvirlarning birida ikki kishidan iborat bo'lgan raqqoslar turli turkum raqslarni ijro etmoqdalar. Chunonchi, suratdagi raqqosning o'yin karakteri urush va g'alaba ma'budi Mirrix mifologik obrazlari talqiniga o'xshaydi. Mirrix suratda qurollangan, baquvvat yigit sifatida tasvirlanadi.

"Bu suratlar o'sha davr qahramonlik raqslarini xarakterlab berish jihatidan barchada katta qiziqish tug'diradi. Ularning belida kalta qilich osilgan bo'lib, ular jo'shqin ravishda o'yinga tushmoqdalar. Raqqoslarning qo'l, oyoq harakatlari, imo-ishoralari bir xil va bir-biriga monand bo'lib, ular qandaydir bir ma'noni anglatadi. Ularning o'yinlari bir tomondan go'zallik baxsh etsa, ikkinchi tomondan jasurlik, qahramonlik kayfiyatlarini yoki jangga kirishish oldidan, zo'r tayyorgarlik

ko'rayotganliklarini bildiradi. O'z xarakteri bilan bu o'yin harbiy qahramonlik raqsidir.”¹

Bu raqqoslarning qo'l, oyoq, tana harakatlaridan keskin va aniq cho'ziq qo'lni yuqori ko'tarib, tizza bir oz bukibroq o'ynashi, sakrab shiddatli harakat qilishi, xuddi hozirgi Xorazm raqs san'atidagi yigitlar ijrolaridagi o'yinlariga o'xshash jihatlarini ko'rishimiz mumkin. Qadimgi yunon gegrafi va tarixchisi Strabon Xorazm massagetlarining jasurligini ta'riflab, “ularning qurollari qilich, misboltalar bo'lib, otda ham, piyoda ham yaxshi jang qilishadi. Jang paytida oltin kamar va oltin belbog'lar taqib oladilar²”, - deb yozadi.

Xorazm xalq raqslari bir necha asrlar mobaynida saqlanib kelmoqda. Xorazmda olib borilgan arxeologik va etnografik ekspeditsiyalar natijasida bu hududda eramizdan avvalgi VI-V asrdayoq an'analar tarkib topganligiga oid ma'lumotlar mavjud. Eramizdan avvalgi IV asr Jonbosqal'a I-IV asr Tuproqqal'a qo'rg'onlari ichida olovxona borligi va u yerda tantanalar o'tkazilganligi aniqlangan. Qadimgi Xorazmshoxlarning Afrigiylar davrigacha bo'lgan qarorgohi Tuproqqal'ada “Shoxlar zali”, “G'alaba zali” “Raqsqa tushuvchi niqoblar zali” borligi aniqlangan.

“Raqsqa tushuvchi niqoblar zali”dan topilgan suratlarda sozandalar qo'llaridagi arfa, ikki tomoni qum soatiga o'xshash nog'ora, ikki torli dutor aks ettirilgan. Ushbu dalillarda islomgacha bo'lgan davrda madaniyat, san'at, kuy, qo'shiq, doston ham raqs ma'lum darajada rivojlanganligidan darak beradi.

Tarixiy manbalarning dalolat berishicha, qadimgi odamlar, dastlab o'z muhofazasi va maishiy ehtiyoji natijasida inson ovozidan kuchliroq tovush beradigan ochiq havoda chalinadigan cholg'ularni ixtiro qilganlar. Uni ovda, boshqa qabilalarga xabar-darak (signal) berishda, harbiy yurishlarda, to'y, sayil, bayram va boshqa yiginlarda qo'llash odat tusiga kirgan. Xorazmshoxlar davrida surnay sadosi qo'shinlarni jangga kirish oldidan raqiblarni yengib, g'alaba kuyi sifatida chalinib, lashkarlar madhiyasi bo'lgan ekan. Xorazm raqs ijrochiligida ham surnay kuyiga ijro qilingan raqslar kim tomonidan o'ynalmasin, jangovarlik holatida mag'rur, shiddat bilan o'ynalib g'alabaga erishish uchun faqat yengish maqsadidagi turli jangavor xarakatlarni ifodalashni ko'rishimiz mumkin.

Bu o'yinda raqqos qo'llarini yuqori ko'tarib barmoqlarini asta-sekin musiqa muqomlariga soladi. O'zi esa go'yo raqibiga qaraganday qarab, gavdasini qimirlatmay tutib turadi. Bir necha takt o'tgach qo'l uchi harakatiga gavda harakatini qo'shadi. Keyin birdan dushmanga tashlanishga o'zini safarbar qilgan jangchiday mayda qadamlar bilan yugurib qo'l barmoklarini o'ynatib, charsillatib, qars urishni tezlalashtirib, lashkarlarning harakatini ifodalaydi. O'yin oxirida esa raqqos jang qilayotgan holatini jang va kurashni, raqibi ustidan qozonilgan g'alabani harakatlarda ifodalab beradi. Surnay inson dunyoga kelganda ham, to'y-u tomoshalarda ham

¹ Raxmonov M. O'zbek teatri. Toshkent., 1976., B.- 52-53.,

² Tolstov S.P.. Qadimgi Xorazm madaniyatini izlab. T.1964.B.-105.

chalingan. Jangga ketayotgan askarlarning ruhini ko‘tarish, qo‘rquv hissini tarqatish uchun ham surnayda xilma-xil jangovar kuylar ijro etilgan, lashkarlar o‘yinga tushganlar. Surnay qulay asbob bo‘lgani uchun saflarda surnaychilarni olib yurishgan.

Davr o‘tishi bilan “Surnay Lazgisi” harbiy marosimlardagina emas, maishiy turmush bilan bog‘liq turli tadbirlarda, xalq bayram va sayllarida, xatna to‘yi, beshik to‘ylarida va ommaviy konsertlarda ham ijro etilmoqda. Qadimda “Surnay Lazgisi”ni, asosan, erkaklar ijro etgan bo‘lsalar, keyinchalik ommaviy raqs sifatida shakllangan. XIX asr oxiri – XX asr boshlarida yashab ijod etgan Sharif To‘g‘onov, Davlat surnaychi, Otamurod surnaychi, Qodir surnaychi, Quronboy Bobojonov, Qodir Bobojonovlar uning mohir ijrochilari bo‘lishgan. Ayniqsa, mashhur raqqos Zarif Latipov bilan gurlanlik Razzoq otaning, buyuk san‘atkor Komiljon Otaniyozov bilan xazorasplik Abdulla raisning “Surnay Lazgisi”ni ko‘pchilik hamon zavq bilan eslaydi.

Surnay qadimiy cholg‘u asboblaridan biri ekanligi hamda to‘qqiz “Lazgi”ning to‘rtinchisi, aynan, uning nomi bilan atalishi bois ham bu cholg‘u haqida ba‘zi ma‘lumotlarni keltiraylik: “O‘zbek tilining izohli lug‘ati”da keltirilishicha, Surnay – (f. to‘yda chalinadigan nay, sibizg‘a) - teshiklarini barmoqlar bilan ochib-yopib, puflab chalinadigan musiqa asbobi³.

Surnay – o‘zbek va tojik xalqlari o‘rtasida keng tarqalgan qadimiy puflama yog‘och cholg‘u asbob. Surnay yolg‘iz, shuningdek nog‘ora, karnaylar bilan birgalikda ham chalinadi. Surnayda chap va o‘ng qo‘l barmoqlari bilan yopiladigan oltita teshikcha bor. Yettinchi teshik esa, pastki tomonda bo‘lib, u chap qo‘lning bosh barmog‘i bilan berkitiladi. Surnay navosi o‘ziga xos yoqimli va zavq bilan tinglanadi.

Xorazm surnayining tovushi keskin va chiyildoq. Surnayda tovush hosil qilish murakkab bo‘lib, sozandaning uzluksiz nafas olish jarayoniga asoslanadi. Mazkur ijro turiga Xorazmda “dam aylantirish” deyiladi. Bunda ijrochi lunjini shishirgan holda zahira havoni og‘zida saqlaydi va burundan nafas olayotgan paytida zahiradagi havoni chakka mushaklari yordamida surnay naychasiga puflaydi. Natijada surnayga havo yuborilishida tovush uzilishiga yo‘l qo‘yilmaydi.

Surnay karnay, nog‘ora yoki doira jo‘rligida ommaviylashgan maxsus ansamblni tashkil qilib, milliy an‘anaviy tomoshalarda, dorboz, qo‘g‘irchoqboz o‘yinlarida, turli marosim, yig‘in va sayillarda, milliy raqslarda (“Ufarlar”, “Qum pishiq”, “To‘rg‘ay”, “Zuvoniy”, “Rotollo”, “Orazibon”, “Norim-norim”, “Yelpasalandi” va ayniqsa, “Surnay Lazgisi”) keng qo‘llaniladi. Surnay yakkanavoz cholg‘u sifatida ham mashhur. Ijro imkoniyatlarining boyligi va o‘ziga xos xususiyatlarga egaligi tufayli unda chalinadigan kuylar alohida ajralib turadi. Xorazmda surnay uchun maxsus “Surnay maqomlari” mavjud bo‘lib, ular mashhur “Tanbur chizig‘i” da o‘z aksini topgan.

³“O‘zbek tilining izohli lug‘ati” Toshkent-1982-y I tom

“Surnay Lazgisi”, odatda, ikki kishi bo‘lib ijro etiladi. Ba’zi hollarda ko‘pchilik o‘ynashi ham mumkin. Lekin harakatlar bir – birini takrorlamasligi, o‘zgacha zavq va jo‘shqinlikni, kurashchanlikni ifoda etishi shart. Davraning o‘ng tarafidan bir raqqos, chap tarafidan ikkinchi raqqos o‘rtaga chiqadi. Raqqoslar “men uni yengaman” degan imo bilan o‘z ixlosmandlariga qarab, kayfiyatni ko‘taradigan harakatlar qilishadi. Ular musobaqa jangiga chiqqan polvonlardek bellarini bog‘lab, raqs harakatlari bilan bilaklaridagi kuchlarini ko‘rsatib, yenglarini shimarib, o‘zlarini kurashga tayyor ekanliklarini bildiradilar. Yuqorida aytib o‘tilganidek, gavda harakatlari bilan “kurash” jarayoni metaforik tarzda adresatga yetkaziladi.

“Surnay Lazgisi” raqsini ilk davrlarda erkaklar qatorida ayollar ham ijro etgan. Keyinchalik u faqat erkaklar raqsi sifatida shakllangan va saqlanib qolgan. Bu tarixiy raqsning ikki kishilik va guruh variantlari mavjud.

“Surnay Lazgisi” o‘zbek yigitlarining mardona xarakterini, ularning hayotga, g‘alabaga, yaratuvchanlikka muhabbat hissini, intiluvchanligini ifodalaydi. Raqsning milliy-ma’rifiy xarakteridan kelib chiqib, asosan, maydonlarda, katta davralarda raqqoslar tomonidan ijro etiladi. Tomashagini zavqlantirish bilan birga ruhlantirish xususiyatiga ega bo‘lgan bu raqs ijro etilganda tomoshabinlar ham qiyqiriqlar va raqqoslarga hamohang harakatlar, mimikalar bilan ularni olqishlab turishadi.

Foydalanilgan adabiyotlar:

1. Avdeeva L. O'zbek raqsi san'ati tarixidan. Toshkent 2001.
2. Qobilniyozov J. Xorazm xalq qo‘shiqlari va o‘yinlari. T., 1975.
3. Matyoqubova G. “Ofatijon Lazgi”. Toshkent, 1993..
4. O'zbekiston Milliy Entsiklopediyasi ,T., 2001 9-j.
5. O'zbek tilining izohli lug'ati. 3-j. I T.1982.
6. Sh. Jalilova O‘zbek raqsini o‘qitish uslubiyoti. O‘quv qo‘llanma.-T.2020.

PRAGMATIC ASPECT AS THE MOST IMPORTANT COMPONENT OF THE ADEQUACY OF SIMULTANEOUS INTERPRETATION

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ABSTRACT

This paper considers aspects of academic knowledge about the importance of pragmatics for the adequacy of simultaneous interpretation. By doing so, it analyses how these perceptions may represent the challenge in improving the research quality among young interpreters. Drawing on a survey of young translators, this study argues that the obstacles are not just pragmatic-related but also cognitive and culture-related. This study uses a Critical Analysis, and cultural analysis to identify meanings.

Keywords: *pragmatic aspects, analysis, code, linguistics, system, words, syntactic, stylistic, lexical.*

One of the unique features of simultaneous interpretation is its practicality, which is very difficult for interpreters to achieve since the time between the original speech and the interpreted speech is only three or four seconds. This means that the speaker speaks without stopping and at the same time the interpreter has to translate the words at the same time. In this arduous process, the translator's memory, rich vocabulary, and broad worldview are crucial for completing this arduous task. Despite the difficulties mentioned above, more than 90% of international conferences are held with the participation of simultaneous interpreters. In addition, simultaneous translation has a lot of scientific and unique features. Therefore, it requires very high requirements from future translators, because it is widely used in official conferences, and translators are not allowed to make even a small mistake. The main requirements for interpreters are as follows: when the original speech is spoken, the simultaneous interpreter must listen very carefully and distinguish every detail. The pragmatic aspect plays an important role in the translation of works of art because together with other components of the translation, this aspect largely determines the adequacy of the translation itself.

There are different ways and conditions for the emergence of pragmatic meaning. For example, a mother welcomes the children back from school saying "The TV is out of order." She says the same phrase to her husband when he returns from work. In both cases, the semantics of the sentence remain the same, but the pragmatic meanings are different. In the first case, the woman meant the following: "You don't watch TV, you prepare a lesson", in the second - "the TV needs to be repaired."

However, the pragmatic purpose of the character does not correspond to the pragmatic intention of the author, which creates a certain difficulty for the translator.

Pragmatics studies how the speech of human activity manifested in various systems is interpreted as a single unit of these elements as a microsystem. So, all the elements loaded with love depend on the pragmatic sphere with the inner feeling of the speech unit and indicate the attitude of the person to the target.

V. Dresses, "Pragmatics is not related to linguistics. It is wrong to mix them." Most linguists would probably disagree, but countless scholars have done pragmatic research. Most of them consider pragmatics to be linguistic, a specific school of language, and a separate aspect of speech and language learning.

Scholars who interpret pragmatism as a branch of linguistics still cannot give clear answers to simple questions:

- "What is pragmatics?"
- What is the source of learning it?
- What aspects of multilingual speech will he learn?

Accordingly, pragmatics is somewhat new in the field of sociology and semantics. When it comes to the subject of semantics, most of us are not well-formed enough to explain the sociolinguistic and other non-linguistic components that lead to pragmatism. If the connection between speech and text is very strong, pragmatics should be implemented in the context of speech, with the text. If the analysis of descriptive words in the syntactic device is based on semantics, non-descriptive words are analyzed by pragmatics.

In other words, semantics is the literal meaning of an idea, while pragmatics is the implied meaning of a given idea. Thus, the relationship between the subject and the meaning of the subject belongs to pragmatics. Speech is a conceptual concept of linguistic pragmatism, which cannot be separated from such points of view as text and speech situations.

In language, the communicator's mentality and behavior are expressed through communication; it also contributes to the development of culture and society and mutual understanding between people. For example:

- *Little Johnnie (crying): Mummy, mummy, my auntie Jane is dead.*
- *Mother: Nonsense, child! She phoned me 5 minutes ago.*
- *Little Johnnie: But I heard Mrs. Brown say that her neighbors cut her dead.*

To cut somebody dead means 'to rudely ignore somebody; to pretend not to know or recognize him.

In this example, "to cut somebody" means "to rudely ignore someone; It means not knowing or pretending not to know him.

T: It seems to me you need to do a lot of drawing.

S: Yeah.

T: Right. A lot of drawing.

S: Mm.

T: In different ways, story form, exploring color...

All those things. When a tutor says, – It seems to me you need to do a lot of drawing... – he or she expects the student either to justify why he or she hasn't done a lot of drawing or to accede to the implicit exhortation to do a lot of drawing.

In this case, the tutor's use of the phrase - It seems to me you need to do a lot of drawing... - he expects the student to either justify why he did not draw a lot, or to indirectly agree to the advice to draw a lot.

V.N. Komissarov writes: "The people develop a certain attitude to the words they use. Such relationship between the word and its users are called "pragmatic". Any text has a communicative character, and it contains some kind of message containing certain information (information) from the source to the recipient (receptor). Sometimes the received information can have a profound effect on the receptor. This information can affect his feelings, cause a certain emotional reaction, and lead to a certain action.

The ability of the text to create such a communicative effect, that is, to create a pragmatic attitude in the receptor towards the messenger, or in other words, to have a pragmatic effect of the information in the text on the receiver, is called the pragmatic aspect of the text or the pragmatic potential of the text (pragmatics of the text). is called

The pragmatic attitude of the receptor to the text depends not only on the pragmatics of the text, but also on the identity of the receptor, his characteristics, background knowledge, previous experience, mental state, and other characteristics.

At the first stage of the translation process, the translator acts as the Receptor of the original and tries to capture the information contained in the text as fully as possible. For this, he must have the background knowledge that native speakers have, that is, he must be aware of the history, culture, literature, traditions, modern lifestyle, and realities of the people who speak the native language. Like any receptor of the original, the translator has a personal attitude towards the information provided. However, the translator must try to ensure that such a personal attitude does not affect the accuracy of the translation. In this sense, the translator should be pragmatically neutral.

The fact that the receptor of the translation text does not have scientific knowledge makes it necessary to explicate (disclose) the intended information and requires adding the necessary additions and clarifications to the translation text. This process is carried out in the second stage of translation.

Filling is carried out in the following cases:

English provinces such as Massachusetts, Oklahoma, and Virginia in the USA, Alberta, Manitoba or Middlesex, Surrey in Canada, and similar geographical names are usually added to the Uzbek language with words such as "state, province, county" The Uzbek student is given information about what the names mean.

The addition of filler elements may also be necessary to reflect the names of organizations, companies, and publishers.

The strike movement in Spain is on the increase, "Newsweek" reports.

According to "Newsweek" magazine, demonstrations are increasing in Spain.

This practice of filling serves to ensure a correct understanding of the different realities of the way of life and life of speakers of another language:

A house of Long Island - Дом на острове Лонд – Aylend orolidagi uy

I could see not only the five boroughs of the city but much of New Jersey as well.

Men nafaqat shaharning to'rt tumanini, balki Nyu-Jersi shtatining kattagina qismini ko'ra olardim.

In some cases, the necessary additional information can be provided as a separate comment to the translation text.

Borough - this is what districts are called in New York. There are five: Manhattan, Bronx, Brooklyn, Queens, and Richmond (Staten Island).

We took a cab from Union Station to Ramada Inn.

We took a taxi from Union Station to the Ramada Inn.

The cab is a synonym of the word taxi, and the word cabbie can be made from it.

Sometimes I bought a submarine sandwich from a local deli.

Submarine sandwich – hero sandwich.

Deli – delicatessen..

In translation, in some cases, in the process of revealing the pragmatic text of the original, it is possible to leave out some details unknown to the translation receptor.

There were pills and medicine all over the place. And everything smelled like Vicks' Nose drops

Various pills and medicines were scattered everywhere and everything smelled of anti-inflammatory medicine.

Vicks - the name of the drug was omitted in the translation. Because it means nothing to an Uzbek student.

A translator sometimes replaces an element unknown to the source language translation receptor with information that is only intended in the source text. As a result, the implicit information in the original becomes explicit in the translation.

The Prime Minister spoke a few words from a window in Number 10.

As any Englishman knows, 10 Downing Street in London is the Prime Minister's residence. An Uzbek reader may not know this, and it would be appropriate to make a substitution that clarifies this name in the Uzbek translation.

The prime minister made a brief statement from the window of his residence.

Some of them insisted on treating me to a meal. Then I would insist on treating them. After an argument, we would, as a rule, go Dutch.

Ularning ba'zilari meni ziyofat berishimni so'rab turib olishdi. Men esa ularning ziyofat berishlari kerakligiga turib oldim. Anchagina bahslashgandan so'ng odatdagidaek hamma o'ziga to'ladi.

Although the meaning of the phrase "to go Dutch" is understandable for an American, it is incomprehensible for an Uzbek, so it was replaced in the translation.

Often in translation, such replacement has the character of generalization, i.e. replacing a word with a specific meaning with its general meaning, which is understandable to the receiver.

"The temperature was an easy ninety", he said.

"Haddan tashqari issiq", - dedi u.

Ninety in the example is used to mean ninety degrees Fahrenheit. The Fahrenheit system is not very familiar to the Uzbek reader, and it can be transferred to the Celsius system. But the word in the text belongs to the reader in the United States, and the Celsius system is not used in this country at all. The information about the fact that it was very hot in the text is important.

It is also common to turn a common noun into a related noun.

Parked by a solicitor's office opposite the café was a green Aston – Martin tourer.

Kafe qarshisidagi advokatlik idorasi oldida yashil rangli sport mashinasi turar edi .

I could see my mother going into Spauldings ...

Men onamning sport mollari do`koniga kirayotganligini ko`z oldimga keltirdim.

Concretization is also used in translation. In this case, a word with a general meaning is replaced by a word with a narrow and concrete meaning to fully reveal this meaning to the receiver.

The British people are still profoundly divided on the issue of joining Europe.

Ingliz xalqida Angliyaning "Umumiy Bozor"ga qo'shilishi kerakmidi degan masalada katta kelishmovchilik haligshacha mavjud.

In the above examples, the translation was determined not by personal characteristics, but by the cultural-historical characteristics of this nation and background knowledge of English realities.

Pragmatic problems of translation directly depend on the orientation (for whom the translation is made), the genre characteristics of the original, and the type of receptors for which the translation is intended.

Literary translators face considerable difficulties in conveying the pragmatic potential of the original. Translation requires appropriate adjustments to the pragmatic differences between AM and TM to be properly understood by the receiver.

Sociolinguistic factors, such as the use of substandard forms of regional-dialect, social-dialect, and changed speech used by speakers, also play an important role in ensuring pragmatic adequacy.

The elements specific to the regional dialects of the original language in the original text are not included in the translation. On the other hand, dialectal forms can be used in a text (mainly fiction) to indicate the linguistic characteristics of a certain individual character.

According to R.B. Anderson, "Dealing with simultaneous translation is not an easy task" [Anderson, 2001: 4]. In addition, people working in this profession must have certain high qualities and characteristics. Simultaneous interpreters should have the following three characteristics in the interpreter qualification, which are considered the most important.

1) Linguistic ability. It includes pragmatic competence, which in turn is divided into two types:

a) pragmatic-linguistic competence - according to scientists, the translator should know the specific features of certain words and phrases.

b) socio-pragmatic competence. This means recognizing the functional methods and etiquette that occur in simultaneous interpretation, among other things.

2) General understanding. This is a quality that allows translators to build their own specialized vocabulary based on their general knowledge of specific topics. In this case, translators will be able to perform their tasks without any difficulties.

3) Fluent delivery skills. Quality, with which interpreters can convey the interpretation based on their secret strategies.

REFERENCES

1. R.B. Anderson "Pragmatic Assessment" in the late 20th century.
2. Paul Grice: "Logic and Conversation" (1975) and "Studies in the Way of Words" (1989).
3. Herbert H. Clark: "Using Language" (1996) and "Principles of Pragmatics" (1996): Co-authored with Eve V. Clark.

**AKSIYADORLIK JAMIYATLARIDA KUZATUV KENGASHI
FAOLIYATINI BOSHQARISHDA RAQAMLI TEXNOLOGIYALARNI
JORIY ETISH ISTIQBOLLARI**

Atamuratov Bobirmirzo Baxram o'g'li

Annotatsiya. Ushbu maqola raqamli iqtisodiyot sharoitida kompaniyalarda moliyaviy barqarorlikni ta'minlash hamda kuzatuv kengashi faoliyatini boshqarishda raqamli texnologiyalardan foydalanishning imkoniyatlari haqida yoritilgan.

Kalit so'zlar: raqamli iqtisodiyot, kuzatuv kengashi, moliyaviy barqarorlik, raqamli texnologiyalar, korporativ boshqaruv.

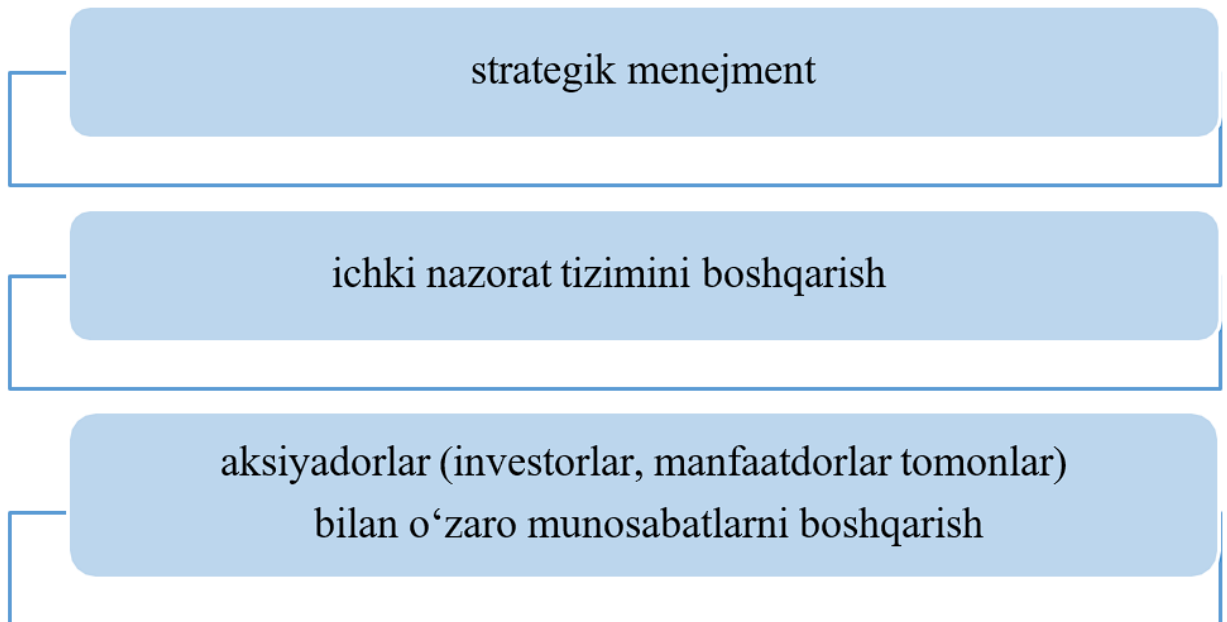
KIRISH

Bugungi kunda mamlakatimiz iqtisodiyotini jadallashtirishning dolzarb masalalaridan biri davlat organlari, kompaniyalar, korxonalar va tashkilotlarga, biznes faoliyatning barcha sohalariga «raqamli iqtisodiyot», zamonaviy axborot texnologiyalari va kommunikatsiyalarini joriy qilish va ulardan keng foydalanish hisoblanadi. Shu maqsadda, oxirgi yillarda davlat rahbari va hukumatning bir qator qarorlari asosida mamlakatimizda raqamli iqtisodiyotni yanada rivojlantirish bo'yicha eng muhim vazifalar belgilandi hamda uni joriy etish va rivojlantirish sohasidagi vakolatli davlat organi tayinlandi.

ADABIYOTLAR SHARHI

Oxirgi paytlarda kompaniyalarda moliyaviy barqarorlikni ta'minlashga hamda korporativ boshqaruvni takomillashtirishga yordam beradigan amaliy biznes-dasturlar nafaqat keng foydalanib kelinmoqda, balki amaliy biznes-dasturlardan foydalanish jadal sur'atlar bilan rivojlanayotgan sohalardan biriga aylangan.

Jahon amaliyotida kompaniyalarda moliyaviy barqarorlikni ta'minlash va korporativ boshqarishda zamonaviy raqamli texnologiyalaridan foydalanishda uchta asosiy soha ajratiladi: 1) strategik menejment; 2) ichki nazorat tizimini boshqarish; 3) aksiyadorlar (investorlar, manfaatdorlar tomonlar) bilan o'zaro munosabatlarni boshqarish (shareholder/investor/stakeholder relations management).



1- rasm. Kompaniyalarda moliyaviy barqarorlikni ta’minlash va korporativ boshqarishda zamonaviy raqamli texnologiyalaridan foydalanishdagi sohalar

TADQIQOT METODOLOGIYASI VA EMPIRIK TAHLIL

Kompaniya strategiyasini amalga oshirish jarayonida direktorlar kengashi (kuzatuv kengashi) ning ijroiya organi bilan hamkorligi, ijroiya organining ichki nazorat tizimini boshqarish bo‘yicha o‘z vazifalarini bajarishlari, kompaniyaning aksiyadorlar va boshka manfaatdor tomonlar bilan o‘zaro hamkorligi masalalarini raqamli texnologiyalar yordamida samarali ta’minlash mumkin. Kompaniya strategiyasini boshqarishda direktorlar kengashi (kuzatuv kengashi) va ijroiya organi a‘zolari o‘rtasidagi o‘zaro hamkorlik, hisobot ko‘rinishidagi axborotlar bilan o‘zaro almashinuvlar muhim ahamiyatga ega. Bu yerda kompaniyaning hozirgi holati va faoliyati to‘g‘risidagi ob‘ektiv hamda bir-biri bilan bog‘liq bo‘lgan hisobotlarni shakllantirishni hamda ularni kompaniyaning rahbarlari tomonidan doimiy ravishda olib turishlarini korporativ IT-tizimi ta’minlaydi. Bunday tizimlarga riskni boshqarish tizimi, axborot xavfsizligini ta’minlash tizimi, korporativ konunchilik talablariga rioya qilish tizimlari (kompliens tizimlar) ni kiritish mumkin. Riskni boshqarish IT-tizimlari ko‘pincha innovatsion faoliyati yuqori bo‘lgan kompaniyalarda hamda moliyaviy mussasalarda qo‘llaniladi. Ayniqsa, banklarda riskni boshqarish tizimi korporativ boshqaruvning asosiy bo‘g‘ini hisoblanadi. Bunday IT-tizimlar kompaniyalarda kreditlarni tahlil qilishga, operatsion risklarni baholashga, kelgusidagi ishlar va xarajatlarni baholashga, riskni boshqarish bo‘yicha hisobotlarni tuzishga, va buning natijasida, menejerlarga yangi va aniq ma’lumotlardan foydalanib, optimal qarorlarni qabul qilishga imkon beradi. Mazkur tizimlardan to‘laqonli foydalanish uchun maxsus korporativ IT- infratuzilmalar yaratilgan.

NATIJARLAR

Axborot xavfsizligini ta'minlovchi IT-tizimlar ham kompaniyalarda ichki nazoratni olib borishda muhim rol o'ynaydi. Ular orqali kompaniyada korporativ ma'lumotlar va axborotlarni hamda tijorat sirlarini maxfiy saqlash, direktorlar kengashi (kuzatuv kengashi) tomonidan axborot xavfsizligini qat'iy nazorat qilish amalga oshiriladi.

Bundan sanoatni rivojlantirish sohasidagi strategiyalar dunyoning turli mintaqalari: Yevropa Ittifoqi, AQSh va Osiyoda, jumladan, Germaniya, Xitoy, Braziliya, Yaponiya, Buyuk Britaniya, Estoniya, Gollandiya, Irlandiya, Shvesiya, Singapur, Filippin, Malayziya kabi mamlakatlarda, shuningdek eng yirik sanoat kompaniyalari tomonidan (masalan, Siemens, General electric, SAP, Intel) ishlab chiqilgan va amalga oshirib kelinmoqda.

1-jadval

Mamlakatlarning raqamli strategiya bo'yicha dasturlari

Mamlakatlar	Strategiyalar	Qabul qilingan yili
Yevropa Ittifoqi	“Raqamli Yevropa 2020”	2010
Germaniya	“Sanoat 4.0”	2011
Xitoy	“Internet plyus”	2015
Rossiya	“Internet kommunikatsiya tarmog'ining Rossiya segmentini va iqtisodiyotning tegishli tarmoqlarini rivojlantirish strategiyasi”	2015
AQSh	“Raqamli Strategiya 2020-2024”	2018
Singapur	“Milliy sun'iy intellekt strategiyasi”	2018
O'zbekiston	“Raqamli O'zbekiston -2030 strategiyasi”	2020

Raqamli texnologiyalarning jadal rivojlanishi nafaqat iqtisodiyotda, balki jamiyatning o'zida ham tub o'zgarishlarga olib keladi. Shunday qilib, axborot xarajatlarining pasayishi tufayli raqamli texnologiyalar davlat, kompaniyalar va jismoniy shaxslar uchun ijtimoiy va iqtisodiy operatsiyalar narxini sezilarli darajada pasaytiradi, innovatsiyalarni rag'batlantiradi, bunda tranzaksiya xarajatlar deyarli nolga teng bo'ladi, shuningdek samaradorlikni keskin oshiradi: mavjud faoliyat va xizmatlar arzonroq, tezroq yoki qulayroq bo'lishiga erishiladi. Nihoyat raqamli texnologiyalar integratsiyani osonlashtiradi.

Iqtisodiyot tarmoqlaridagi korxonalarining asosiy qismi davlat ishtirokidagi korxonalar hissasiga to'g'ri kelishini va ularning faoliyati bevosita iqtisodiy rivojlanish ko'rsatkichlariga sezilarli ta'sir etishini inobatga olib, ularning samarali foydalanishini ko'rsatishini tashkil etishning asosiy omillaridan biri bo'lib to'g'ri va samarali tashkil etilgan boshqaruv tizimi hisoblanadi.

Davlat ishtirokidagi korxonalar faoliyati samaradorligini oshirish va ularning faoliyatiga korporativ boshqaruvning ilg'or amaliyotini joriy etish borasida hal etilishi lozim bo'lgan masalalar mavjud:

1) Davlat ishtirokidagi korxonalariga egalik qilish mezonlari, davlatning nazorat qilish va mulkdor funksiyalarini ajratish hamda korporativ boshqaruvning zamonaviy uslublarini joriy etishni nazarda tutuvchi uzoq muddatli Strategiya mavjud emas.

2) Davlat ishtirokidagi korxonalar tomonidan samaradorlikning muhim ko'rsatkichlari (KPI) e'lon qilinmaganligi sababli davlat aktivlarini boshqarish yo'nalishida samaradorlikni baholash tizimi to'laqonli joriy etilmagan.

Ma'lumot uchun: davlat ishtirokidagi 649 ta korxonalar tomonidan ushbu ko'rsatkichlar e'lon qilinmagan.

3) Dividend siyosatini yuritish bo'yicha yagona davlat organi belgilanmaganligi sababli aksiyadorlarning qonun hujjatlari va halqaronormalar bilan mustahkamlab qo'yilgan dividend olishga bo'lgan huquqlari buzilmoqda.

Davlat aktivlarini samarali boshqarish sohasidagi tizimli muammolarni bartaraf etish taklif qilinadi:

- Davlat ishtirokidagi korxonalarini boshqarish va isloh qilish Strategiyasini qabul qilish;

- Davlat ishtirokidagi korxonalarining ijro organi va kuzatuv kengashi a'zolarini moddiy rag'batlantirish mos ravishda samaradorlikning muhim ko'rsatkichlari (SMK) natijalari va korporativ boshqaruv tamoyillarini joriy etilishi darajasini baholashga to'g'ridan-to'g'ri bog'liq bo'ladigan tizimni joriy etish;

- Davlat aktivlarini boshqarish agentligini dividend siyosatini yuritish bo'yicha yagona davlat organi etib belgilash;

- davlat ishtirokidagi korxonalarining o'rta va qisqa muddatli strategiyasini to'liq amalga oshirish uchun ijroiya organi vakolatlarini bir yildan uch yilga uzaytirish;

- Ma'lumot uchun: AQSh, Argentina, Avstraliya, Chili, Xitoy, Hindiston, Italiya, Janubiy Koreya va Turkiyada 3 yilgacha, Germaniyada 5 yilgacha, Fransiyada kuzatuv kengashi a'zosi 6 yildan ortiq muddatgacha saylanishi mumkin.

- Kuzatuv kengashi mustaqil a'zolari Uyushmasini tashkil etish;

Ma'lumot uchun: Direktorlar mustaqil a'zolari uyushmasi bir qancha rivojlangan davlatlarda tashkil etilgan, jumladan Rossiyada (2002 yilda) – Mustaqil direktorlar uyushmasi; Qozog'istonda (2007 yilda) – Mustaqil direktorlar uyushmasi; AQShda – Korporativ direktorlar milliy uyushmasi (NACD), Yevropa direktorlar uyushmalari konfederatsiyasi (eCoda), Buyuk Britaniyada – Direktorlar instituti (IoD) kabilar tashkil etilgan.

- Davlat ishtirokidagi korxonalarining kuzatuv kengashi tarkibidagi davlat xodimlari sonini bosqichma-bosqich kamaytirish, ular tarkibigakamida bitta, jumladan

tegishli malaka va ish tajribasiga ega bo'lgan mustaqil a'zo kiritish;

- davlat ishtirokidagi korxonalarining kuzatuv kengashi faoliyatini baholash mexanizmini ishlab chiqish.

- korxonalar boshqaruv organlari yig'ilishlarini videokonferensaloqa orqali o'tkazish va elektron ovoz berish tartibotini joriy qilish;

- davlat ishtirokidagi korxonalarining biznes-rejasiga asosan investitsiya loyihasini amalga oshirish va ishlab chiqarishni modernizatsiya qilish uchun tashqi manbaalar hisobidan qarz sifatida pul mablag'lari jalb etilishi ko'zda tutilgan taqdirda, ular tomonidan Markaziy bankning qayta moliyalash stavkasi miqdoridan ortiq dividend to'lashni ta'qiqlash;

- davlat ishtirokidagi korxonalar tomonidan ijtimoiy va ishlab chiqarish infratuzilmasini rivojlantirish loyihalarini moliyalashtirishga homiylik va boshqa beg'araz yordamlar uchun yo'naltiriladigan mablag'larning qonunchilikda belgilangan miqdoridan ortiq qismi davlat ulushi bo'yicha dividendlar sifatida tan olish va biznes-reja ko'rsatkichlarini bajarilishi bo'yicha ularning moliya-xo'jalik faoliyati yakunlarini baholashda inobatga olish.

XULOSA VA MUNOZARA

Raqamli texnologiyalar kompaniyalarga savdo, inventarizatsiya, ishlab chiqarish quvvati va operatsion jarayonlarni yangicha, ya'ni son darajasida tahlil qilishga imkon beradi. Bu esa o'z navbatidagi kompaniya mahsulotlariga, yetkazib beruvchilar va xaridorlar bilan o'zaro munosabatlarga hamda jarayonlarni tashkil etishga nisbatan sifat jihatidan yangi xulosalarga olib keladi.

ADABIYOTLAR RO'YXATI

1. O'zbekiston Respublikasi Prezidentining 2018 yil 3 iyuldagi PQ-3832-son "O'zbekiston Respublikasida raqamli iqtisodiyotni rivojlantirish chora- tadbirlari to'g'risida"gi Qarori. // O'zbekiston Respublikasi Qonun hujjatlari ma'lumotlari milliy bazasi (www.lex.uz)
2. O'zbekiston Respublikasi Prezidentining 2020 yil 2 martdagi PF-5953- sonli "2017-2021 yillarda O'zbekiston Respublikasini rivojlantirishning beshta ustuvor yo'nalishi bo'yicha Harakatlar strategiyasini «Ilm, ma'rifat va raqamli iqtisodiyotni rivojlantirish yili»da amalga oshirishga oid Davlat dasturi to'g'risida"gi Farmoni. // O'zbekiston Respublikasi Qonun hujjatlari ma'lumotlari milliy bazasi (www.lex.uz)
3. O'zbekiston Respublikasining "Aksiyadorlik jamiyatlari va aksiyadorlarning huquqlarini himoya qilish to'g'risida"gi Qonuni. 26.04.1996 y. N 223-I
4. "Aksiyadorlik jamiyatlarida zamonaviy korporativ boshqaruv uslublarini joriy etish chora- tadbirlari to'g'risida" O'zbekiston Respublikasi Prezidentining Farmoni. 2015-yil 24-aprel
5. Gracheva M. Korporativ boshqaruv – axborot texnologiyalarining roli. // "Kompaniya boshqaruvi" jurnali. – Moskva, 2014. - № 10
6. S.Qudratov. Bank tizimida korporativ boshqaruvni takomillashtirish. Toshkent "Akademnashr" 2016 y. 176-bet.
7. S.Qudratov., M.Nazarova. Tijorat banklarida korporativ boshqaruv. Toshkent. TDIU. 2019 y.

**SHARQ MUTAFAKKIRLARI SABOQLARI ORQALI O'QUVCHILARNING
O'ZBEK XALQ NAQQOSHCHILIGIDA MA'NAViy-AXLOQIY
MADANIYATINI SHAKLLANTIRISH**

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ANNOTATSIYA

Respublikamizda uzluksiz ta'lim tizimining barcha bosqichlariga, shu jumladan uning Maktab va maktab ta'limbosqichiga e'tibor kun sayin ortib bormoqda. O'zbekiston Respublikasi Prezidenti Sh. Mirziyoyevning 2016-yil 29-dekabrda "2017-2021-yillarda Maktab va maktab ta'limtizimini yanada takomillashtirish chora-tadbirlari to'g'risida" gi PQ-2707-sonli qarori ijrosini ta'minlashda bolalarni maktab ta'limiga tayyorlash darajasini tubdan yaxshilash muhim vazifa etib belgilandi. Zero, ta'kidlab o'tganimizdek, uzluksiz ta'lim bosqichlarining samarali ishlashi sezilarli darajasida maktab ta'limning sifati bog'liq, bu davrda o'quvchining dunyoqarashi, tasavvurlari rivojlanib boradi va eng muhimi shaxs sifatida shakllanishiga zarur poydevor qo'yiladi. Ushbu magistrlik dissertatsiyasida bolalarni tasviriy faoliyatga o'rgatishda naqsh san'atini rivojlantirish yo'llari tadqiq etiladi.

ANNOTATION

Attention to all stages of the system of continuing education in the country, including its pre-school education, is growing day by day. President of the Republic of Uzbekistan Sh. It is important to radically improve the level of preparation of children for school education in the implementation of the Resolution of Mirziyoyev dated December 29, 2016 No PQ-2707 "On measures to further improve the system of preschool education in 2017-2021" defined as a task. As we have already mentioned, the effective functioning of the stages of continuing education depends to a large extent on the quality of preschool education, during which the child's outlook and imagination develop and, most importantly, the necessary foundation is laid for his formation as a person. This master's dissertation explores ways to develop spatial imagination in teaching children visual arts.

АННОТАЦИЯ

С каждым днем возрастает внимание ко всем этапам системы непрерывного образования в стране, в том числе к его дошкольному образованию. Президент Республики Узбекистан Ш. Важно кардинально повысить уровень подготовки детей к школьному обучению в рамках реализации Постановления Мирзиёева от 29 декабря 2016 года № ПП-2707 «О мерах по дальнейшему совершенствованию системы дошкольного образования в 2017-2021 годах», определяемом как задача. В этой магистерской диссертации исследуются способы развития

пространственного воображения при обучении детей изобразительному искусству.

Rasm chizish bolani fikrlashga undaydi, qobiliyatlarini rivojlantiradi, vizual xotirani kuchaytiradi. Albatta, maktab yoshda bo'lgan bolaga rasm chizishni o'rgatish oson emas, lekin u qadar qiyin vazifani ham shunchalik qo'rqinchli va imkonsiz ko'rinmasligi uchun oddiy bosqichlarga bo'lish mumkin.

Maktab va maktab ta'lim muassasasida tasviriy faoliyat bo'yicha ishlarni rejalashtirishda asosiy prinsip, bu tasviriy faoliyatni ta'lim tarbiyaviy ishning eng muhim bo'limlaridan biri sifatida qarash hisoblanadi. Tasviriy faoliyat bo'yicha ishni ma'lum bir vaqtga rejalashtirishda, shu davrda faoliyatning boshqa turlari bo'yicha amalga oshiriladigan ta'lim-tarbiyaviy ishlarni ham nazarda tutmoq lozim. Tasviriy faoliyat bo'yicha mashg'ulotlarni rejalashtirishda, albatta tasviriy faoliyat mashg'ulotlari o'rtasida o'zaro bog'liqlikni ham hisobga olmoq zarurdir. Tasviriy faoliyatning har bir turi o'ziga xos vazifalarni hal etadi, ammo qanday bo'lsa-da, ularni bir yo'nalish, maqsad bo'yicha birlashadilar.

Tasviriy faoliyat turlari — rasm chizish, loy bilan ishlash, applikasiya o'ziga xos tasviriy texnikaga egadir. Tasviriy faoliyat bo'yicha ishni rejalashtirishda o'qituvchi, albatta har bir turdagi mashg'ulotlar soniga qat'iy rioya qilishi lozim. Tasviriy faoliyat bo'yicha mashg'ulotlarni rejalashtirish, yuqoridagilardan tashqari, mashg'ulot qanday materiallar bilan o'tkazilsa, maqsadga muvofiq bo'lishini ham o'qituvchi nazarda tutmog'i lozim. Masalan, loy bilan ishlashda — loy yoki plastilin, rasm chizishda — guash, rangli qalam, ko'mir tayoqchasi va hokazo. Shuningdek, o'qituvchi mashg'ulotning dastur mazmunini tanlashda, bolalarga qanday predmetlarni chizdirish haqida emas, balki shu predmetni chizdirish yoki loydan yasattirish orqali qanday bilim va ko'nikma berish yoki o'rgatish haqida ko'proq o'ylashi lozim. Ixtiyoriy mashg'ulotlarni rejalashtirishda esa o'qituvchi bolalarning mustaqilligini, ijodiy qobiliyatlarini rivojlantirishga yordam berishi o'rgatish usullari to'g'risida o'ylab olishi kerakdir.

1. Tasviriy faoliyatga ta'lim-tarbiya ishining muhim bo'lagi, deb qarash ham da rasm chizish, loy bilan ishlash, applikasiya mashg'ulotlarini rejalashtirishda dasturning barcha bo'limlari o'rtasidagi o'zaro aloqa, bog'lanishni doimo diqqat-e'tiborda tutish lozim. Ya'ni tevarak-atrof bilan tanishtirish, musiqa mashg'ulotlari va hokazo. Bular tasviriy faoliyat uchun qiziqarli hodisalar va voqealarni tanlashga yordam beradi.

2. Tasviriy faoliyatning barcha turlari tevarak-atrof, hayotni obrazlarda tasvirlaydi, ammo har biri o'ziga xos xususiyatga ega ekanligini hisobga olmoq zarur. Ya'ni rasm chizish — predmet va voqealarni rangda tekis yuzada tasvirlaydi, loy hajmlarda, applikasiya — rangda, siluet ravishda. Shuningdek, har biri o'ziga xos

tasvir texnikasiga ega: rasm chizish chiziqli grafik ravishda, rangtasvir usulida, loy plastik ravishda, girih naqsh kompozitsiyalarini chuqur urganish va tuzish.¹

3. Dasturda tasviriy faoliyat turlari oldiga qo'yilgan vazifalardan biri ularning o'zaro aloqada ekanligidir. Masalan, bolalar rang bilan rasm chizish bilan bir vaqtda, applikasiya bilan ham tanishib boradilar.²

4. Tasviriy faoliyati turlari o'rtasidagi bog'lanish o'qituvchiga rasm chizish, loy, applikasiya bo'yicha vazifalarni aniqlashga yordam beradi. Masalan, kichik guruhga doiraviy shakllarni o'rgatishda, oldin tayyor doira shakllarini applikasiyada bergan ma'qul, so'ng esa rasm chizish mashg'ulotlarida bergan ma'qul.

5. Tasviriy faoliyat turlari o'rtasidagi bog'lanish ma'lum bir mavzudagi mashg'ulotlar asosida ham bo'lishi mumkin. Masalan, rus xalq ertagi «Bo'g'irsoq»ni bolalar ham chizishi, ham applikasiya, ham loydan yasashi mumkin. Bu turdagi takrorlanish bolalarning mavzuga nisbatan qiziqishlarini pasaytirmaydi, chunki har bir faoliyat turi jarayonida bolalar ertak qahramonlarining xilma-xil tasvirining yangi usul va yo'llari bilan tanishadilar.

6. Tasviriy faoliyat mashg'ulotlarini to'g'ri rejalashtirishda, mashg'ulotlar o'rtasida ularning dastur vazifalari, mavzular o'rtasida bog'lanish vujudga keladiki, buning natijasida bolalarning yangi malaka va ko'nikmalarini va bilimlarni egallashlarida ma'lum ketma-ketlik va bog'lanish vujudga keladi. Rangtasvirda ishlash tarixiy usullarini chuqur egallash orqali mashg'ulotning mohiyatini tushunadi.

7. Shuningdek, tasviriy faoliyati bo'yicha ishni rejalashtirishda faqatgina ularning turlari o'rtasidagi ketma-ketlikni nazarda tutmay, balki har bir turdagi mashg'ulotlar o'rtasida ham bog'lanish o'rnatish va ularni diqqatda tutish lozim. Masalan, predmetli rasm chizish loy ishlaridan keyin mazmunli ishlarni rejalashtirish lozim. Tasviriy faoliyat bo'yicha ishni rejalashtirishda o'qituvchi bolalar bilan ishlashda foydalanadigan metod va usullariga ham ahamiyat bermog'imiz lozim. Bular ko'rsatmali va og'zaki metod hisoblanadi. Ko'rsatmali va og'zaki metod o'zaro birgalikda olib borilishi lozim. Demak, o'qituvchi tasviriy faoliyat bo'yicha ishlarni rejalashtirishga juda katta ahamiyat bermog'i lozim ekan. O'qituvchi ishni rejalashtirishga qanday ahamiyat bergan bo'lsa, ishni hisobga olishga ham shunday e'tibor bermog'i lozim bo'ladi. Chunki bu narsa — o'qituvchiga tasviriy faoliyatga o'rgatish bo'yicha dastur vazifalari talablari qanday bajarilganligini aniqlashga va mashg'ulotlarning sifatli chiqishi uchun qanday tayyorgarlik ishlarini ko'proq olib borish lozimligi hamda o'rgatishlarning yangi xilma-xil metod va usullari ustida ko'proq ishlash lozimligini aniqlab olishga va keyinchalik ulardan bolalar bilan ishlashda foydalanish uchun yangi-yangi imkoniyat yaratib beradi.

¹ Alisher o'g, S. N. Z. (2023). GIRIH NAQSH KOMPOZISIYALARI TUZISH. *Journal of new century innovations*, 20(2), 162-166.

² Alisher o'g, S. N. Z. (2022). BO'LAJAK TASVIRIY SAN'AT O'QITUVCHILARINING RANGTASVIR FANI BO'YICHA KASBIY MAHORATINI SHAKLLANTIRISHNING NAZARIY ASOSLARI. *World scientific research journal*, 2(1), 82-87.

Tasviriy faoliyat bo'yicha bolalar ishini tahlil qilish ikki shaklda olib borilishi mumkin.

1) Matn shaklida: har kungi hisobot va alohida bolalarni kuzatish bo'yicha olib borilgan kuzatishlar matni.

2) Ko'rgazmali: Bolalar ishlarini saqlash, tasviriy faoliyat bo'yicha bolalar ishlarini saqlash o'qituvchiga guruhdagi u yoki bu bolaga tasviriy malaka va ko'nikmalarni egalladimi, yo'qmi, tevarak-atrof go'zalligini, rang va shaklni ko'rishga o'rgandimi, yo'qmi? Shu masalalarni hal etishga yordam beradi. Har bir o'quvchining ishi belgilangan bo'lishi lozim. Bola chizgan yoki yopishtirgan ishining orqa tomonida uning ismi-familiyasi, mashg'ulot o'tkazilgan sanani ham yozish kerak. Bolalarning chizgan ishlarini alohida papkalarga solish yoki ularni albom holiga keltirib qo'yish mumkin. Eng qulayi ishlarni tikib qo'yish, ya'ni hamma mashg'ulotlarni yig'ib, o'rtasidan uzun tasmasimon qog'oz bilan bog'lab qo'yishdir. Bu tasmaning kengligiga, bolalarning yoshi, mashg'ulot nomi, familiyasi, o'qituvchining o'tkazgan sanasi sig'ishi lozim. Shunga qarab, bolalarning loy ishlarini (har bir o'quvchining 3 ta ishi 1 yil saqlanishi lozim) saqlashda ham o'quv yilining boshi, o'rtasi va oxiri bo'yicha ajratish maqsadga muvofiqdir. Bu esa bolalarning malaka va bilimni tahlil qilishga yordam beradi.

FOYDALANILGAN ADABIYOTLAR RO'YXATI

1. O'zbekiston Respublikasining «Ta'lim to'g'risida»gi yangi tahrirdagi qonuni.O'RQ-637-son. // www.lex.uz

2. O'zbekiston Respublikasi Prezidentining 2016-yil 29-dekabrda "2017-2021-yillarda Maktab va maktab ta'limtizimini yanada takomillashtirish chora-tadbirlari to'g'risida" gi PQ-2707-sonli qarori. // www.lex.uz

3. O'zbekiston Prezidenti Shavkat Mirziyoyev 2017-2021 yillarda O'zbekistonni rivojlantirishning beshta ustuvor yo'nalishi bo'yicha harakat strategiyasi. 7-yanvar 2017-yil.

4. O'zbekiston Prezidenti Shavkat Mirziyoyev "Maktab va maktab ta'limtizimi boshqaruvini tubdan takomillashtirish chora-tadbirlari to'g'risida". 2017-yil 30-sentyabr, №5198 sonli farmoni.// www.lex.uz

**O'ZBEK XALQ NAQQOSHCHILIGIDA NAMOYON KOMPOZITSIYASINI
TURLI USHLARDA BAJARISH ORQALI O'QUVCHILARDA BADIY-
ESTETIK MADANIYATNI RIVOJLANTIRISHDAGI TUTGAN O'RNI**

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ANNOTATSIYA

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ANNOTATION

Attention to all stages of the system of continuing education in the country, including its pre-school education, is growing day by day. President of the Republic of Uzbekistan Sh. It is important to radically improve the level of preparation of children for school education in the implementation of the Resolution of Mirziyoyev dated December 29, 2016 No PQ-2707 "On measures to further improve the system of preschool education in 2017-2021" defined as a task. As we have already mentioned, the effective functioning of the stages of continuing education depends to a large extent on the quality of preschool education, during which the child's outlook and imagination develop and, most importantly, the necessary foundation is laid for his formation as a person.

АННОТАЦИЯ

С каждым днем возрастает внимание ко всем этапам системы непрерывного образования в стране, в том числе к его дошкольному образованию. Президент Республики Узбекистан Ш. Важно кардинально повысить уровень подготовки детей к школьному обучению в рамках реализации Постановления Мирзиёева от 29 декабря 2016 года № ПП-2707 «О мерах по дальнейшему совершенствованию системы дошкольного образования в 2017-2021 годах», определяемом как задача. Как мы уже отмечали, эффективное функционирование этапов непрерывного образования во многом зависит от качества дошкольного

образования, в ходе которого развиваются мировоззрение и воображение ребенка и, главное, закладывается необходимая основа для его формирования как личности. человек.

Kalit so'zlar: applikasiya, kreativlik, kompetensiya, san'at tarixi, multimedia, grafika dizayni, milliy naqsh, qalamtasvir, rangtasvir, kompozitsiya.

Ключевые слова: аппликатсия, бфровые технологии, креативность, компетентность, история искусства, карандаш, мультимедиа, композиция, графический дизайн, национальный орнамент, карандаш, живопись, композиция, мастерство

Keywords: digital technology, creativity, competence, art history, pencil, multimedia, composition, graphic design, National pattern, pencil, painting, composition

Rasm chizish, loydan buyumlar yasash va applikasiya-bu tasviriy faoliyat turlari bo'lib, ularning asosiy vazifasi tevarak atrofni obrazli aks ettirish hisoblanadi. Masalan: yozuvchining she'ri va rassomning asari. Tasviriy faoliyat maktab yoshidagi bolalarni har tomonlama tarbiyalashda kattaahamiyatga egadir. Tasviriy faoliyat bolalarni ongli tomondan tarbiyalashda kattaahamiyat kasb etadi. Birorta predmetni chizish yoki yasash uchun albatta u bilan oldindan tanishish yoki kuzatib chiqish, uni shakli, katta-kichikligini, qismlarning joylanishi, rangini bilish kerak bo'ladi. Bu jarayonida ko'rish, sezish, qo'l harakatlari ishtirok etmay qolmaydi. Bolalar predmet vaxodisalarini kuzatish va ko'rib chiqish jarayonida bolalar predmetni katta-kichik guruhlarga bo'lish, uni shaklini o'zgartirish, rangini turli-tumanliti bilan tasvirleydilar. Shuningdek, tasviriy faoliyat jarayonida bolalar turli xil material (qog'oz, bo'r, bo'yoqlar) bilan ularning o'ziga hos xususiyatlari, ular bilan ishlash texnikasi bilan tanishadilar, bu esa bolalarni aqlan o'sishiga sabab bo'ladi. Tasviriy faoliyat jarayonida bolalarda fikr yuritish operatsiyalari (tahlil, sintez, taqqoslash umumlashtirish) ni rivojlanishga imkon beradi, bu o'z navbatida bolalarni oqilona o'sishigaolib keladi. Shu bilan birga garih naqsh kompozitsiyalari tuzish usullarini urganish ham rivojlanishning ildizlariga aylanadi.¹ Chunki bolalar predmetlar bilan uzviy bog'lanadilar, ularning o'ziga hos sifatleri, shakli, rangi bilan, katta-kichikligi bilan tapishadilar, ularni farqini, o'xshashligini aniqlaydilar, bu esa bolalarni sensor tarbiyalashga, ko'rgazmali, obrazli fikr yuritishga imkon beradi.

Bolani tarbiyalashda eng muhimi o'qituvchining mahorati yani tasviriy san'at o'qituvchilarining rangtasvir fani bo'yicha kasbiy mahoratini shakllantirishning nazariy asoslarini chuqur urganishi lozim.² Har bir predmetning katta-kichikligini,

¹ Alisher o'g, S. N. Z. (2023). GIRIH NAQSH KOMPOZISIYALARI TUZISH. Journal of new century innovations, 20(2), 162-166.

² Alisher o'g, S. N. Z. (2022). BO'LAJAK TASVIRIY SAN'AT O'QITUVCHILARINING RANGTASVIR FANI BO'YICHA KASBIY MAHORATINI SHAKLLANTIRISHNING NAZARIY ASOSLARI. World scientific research journal, 2(1), 82-87.

rangini, shaklini, fazoda joylashishini ajratish bu estetik sezgining bo'laklari hisoblanadi. Bolalarda estetik sezgining rivojlanishi - rangi, ritmi, proporsiyani chuqurroq sezish bilan bog'liqdir. Bola rangni, shaklni, uning xilma-xilligini sezsa, shunchalik ranglar aralashmasining xilma-xilligidan zavq oladi, bahramand bo'ladi. Bolalarda estetik sezgining rivojlanishi, ularda predmetga va uning ba'zi sifatlariga nisbatan estetik baho berishni rivojlantiradi. Ularda tasviriy san'at asarlarini tushunishga, ularga nisbatan his-tuyg'uni, munosabatni tarbiyalaydi. Tasviriy faoliyat bolalarning badiiy ijodiy o'sishida muhim o'rin egallaydi. O'quvchining badiiy ijodiy o'sishi-bu obrazli fikr yuritish, estetik idrok etishni va obraz yaratishda zarur bo'lgan malaka, ko'nikmalarni egallash hisoblanadi. Masalan: tabiatga yoki istirohat bog'iga sayr, kuz faslida ekskursiya uyushtirish.

Naqqoshlikda rangtasvir mis shisha chinni buyumlarini ishlash texnikasini qo'llashda kompozitsiyaning o'sishiga olib keladi.³

Bolalarni o'z ishini yana ham chiroyli va yaxshi bajarish, boshqalarga yoqadigan, ular ko'rganda quvonadigan qilib yaratish-bu badiiy, axloqiy tarbiyalashning asosiy vazifasi hisoblanadi. Maktabga bolalarni tayyorlashda tasviriy faoliyat kata ahamiyat kasb etadi. Rasm, loy, qurish materiallari bo'yicha bilim, malakalarini egallash maktabda tasviriy faoliyat darslari va mehnat darslarini muvaffaqiyatli egallashlariga asos bo'ladi. bola tasviriy faoliyat jarayonida psixologik jihatdan ham tayyorlanib boradi. Maktabda: qiziqishga hohish, yangiliklarni bilishga intilish, maqsad sari intilish, tartibli holda shug'ullanish va shu kabilar. Shunday qilib, tasviriy faoliyat jarayonida olgan malakalar bolalarni maktab hayotiga tezda kirishib ketishiga asos bo'ladi.

Xalq amaliy san'atida gulli girix naqsh kompozitsialari va ularning turlari, naqqoshlik maktablari haqida bolalarga yetarli ma'lumotlar berish⁴

Maktab va maktab ta'lim muassasalarida tasviriy faoliyat mashg'ulotlarda bolalar asosan amaliy ish bajaradilar, san'at asarlarini bilan rasmga qarab hikoya qilish; maktabda esa tasviriy san'atning turlari rang tasvir, grafik, haykaltaroshlik va dekorativ san'at asarlari bilan yanada chuqurroq tanishadilar. Maktab va maktab ta'lim muassasasida tasviriy faoliyat mashg'ulotlari xilma-xildir: rasm chizish, loy, applikatsiya, qurish-yasash mashg'ulotlari hisoblanadi.

Bolalar guruhdagi olib boriladigan tasviriy faoliyat mashg'ulotlarida, qalam hamda mo'yqalamdan erkin foydalanishga o'z xarakterini va qo'l kuchini idora etishga o'rganadilar. Bu esa, malakani egallash, bolalarda qo'lini yengil, erkin bir tekisdagi harakat qilish xususiyatlarini rivojlantiradi.

³ Mirzayev, E. (2022). RANG TASVIRDA MIS SHISHA CHINNI BUYUMLAR ISHLASH TEXNIKASI. *Физико-технологического образования*, (6).

⁴ Alisher o'g, S. N. Z. (2023). XALQ AMALIY SAN'ATIDA GULLI GIRIX NAQSH KOMPOZITSIYALARI VA ULARNING TURLARI, NAQQOSHLIK MAKTABLARI. *Journal of new century innovations*, 20(2), 167-172.

FOYDALANILGAN ADABIYOTLAR RO‘YXATI

I. Normativ-huquqiy hujjatlar va metodologik ahamiyatga molik nashrlar

1. O‘zbekiston Respublikasining «Ta’lim to‘g‘risida»gi yangi tahrirdagi qonuni.O‘RQ-637-son.
2. O‘zbekiston Respublikasi Prezidentining 2016-yil 29-dekabrdagi “2017-2021-yillarda Maktab va maktab ta’limtizimini yanada takomillashtirish chora-tadbirlari to‘g‘risida” gi PQ-2707-sonli qarori. // www.lex.uz
3. O‘zbekiston Prezidenti Shavkat Mirziyoyev 2017-2021 yillarda O‘zbekistonni rivojlantirishning beshta ustuvor yo‘nalishi bo‘yicha harakat strategiyasi. 7-yanvar 2017-yil.
4. O‘zbekiston Prezidenti Shavkat Mirziyoyev “Maktab va maktab ta’limtizimi boshqaruvini tubdan takomillashtirish chora-tadbirlari to‘g‘risida”. 2017-yil 30-sentyabr, №5198 sonli farmoni.// www.lex.uz
5. Alisher o‘g, S. N. Z. (2023). GIRIH NAQSH KOMPOZISIYALARI TUZISH. *Journal of new century innovations*, 20(2), 162-166.
6. Alisher o‘g, S. N. Z. (2022). BO‘LAJAK TASVIRIY SAN‘AT O‘QITUVCHILARINING RANGTASVIR FANI BO‘YICHA KASBIY MAHORATINI SHAKLLANTIRISHNING NAZARIY ASOSLARI. *World scientific research journal*, 2(1), 82-87.
7. Alisher o‘g, S. N. Z. (2023). XALQ AMALIY SAN‘ATIDA GULLI GIRIX NAQSH KOMPOZITSIYALARI VA ULARNING TURLARI, NAQQOSHLIK MAKTABLARI. *Journal of new century innovations*, 20(2), 167-172.

BOSHLANG'ICH SINFLAR O'QUVCHILARIDA ODOB-AXLOQ KO'NIKMALARINI SHAKLLANTIRISH

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Annotatsiya: Ushbu maqolada boshlang'ich sinflar o'quvchilarida axloqiy madaniyatni shakllantirishning nazariy asoslari haqida so'z boradi. Maqolada o'quvchilarning axloqiy madaniyat ko'nikmalarini kelajakdagi o'quv jarayoni uchun yanada ustivorlashtirish, ularning ta'lim sifatini oshirishdagi ahamiyatini ko'rsatishga yo'naltirilgan ma'lumotlar mavjud. Bu o'quvchilar uchun ham, qolaversa o'qituvchilar uchun ham muhim masala, chunki odob-axloq ko'nikmalari o'qitish samaradorligini va o'quv jarayonida bolalarni rivojlantirishni kafolatlaydi.

Kalit so'zlar: madaniyat, o'qitish, axloq-odob, nazariy qamrov, axloqiy madaniyat, pedagogik faoliyat.

O'quvchilarni ma'naviy-axloqiy tarbiyalash masalasi davlatimizning ta'lim sohasini isloh qilish bo'yicha asosiy hujjatlarida "Yosh avlodni ma'naviy-axloqiy tarbiyalashda xalqning boy milliy, madaniy-tarixiy an'alariga, urf-odatlariga hamda umumbashariy qadriyatlarga asoslangan samarali tashkiliy, pedagogik shakl va vositalar ishlab chiqilib amaliyotga joriy etiladi", - deb belgilab qo'yilgan. Har qanday ta'lim muassasasida tarbiyaviy jarayon bevosita o'qituvchi tomonidan tashkil qilinadi va olib boriladi. Yangicha ijtimoiy sharoitda ta'lim-tarbiyadan ko'zda tutilayotgan maqsadlarga erishish, o'quvchilarning dars va darsdan tashqari xilma-xil tarbiyaviy faoliyatlarini uyushtirish, ularni bilimli, odobli, e'tiqodli, vatanparvar, mehnatsevar, barkamol inson qilib o'stirish va kasbga yo'naltirish o'qituvchi zimmasiga yuklatilganligi bilan alohida ahamiyat kasb etadi.

Prezidentimiz Shavkat Mirziyoyev shunday deydi: „Bizni o'ylantirib keladigan yana bir muhim masala-bu yoshlarimizning odob-axloqi, yurish-turishi, bir so'z bilan aytganda, dunyoqarashi bilan bog'liq". Shunday ekan yuksak axloqli, jamiyatga barkamol ijobiy munosabatda bo'ladigan, o'zini namoyon qila oladigan, ijodkorlik qobiliyatiga ega yangi shaxsni shakllantirish ko'p jihatdan o'qituvchining mahoratiga bog'liq.

Insonning ma'naviyati uning axloqi, odobi, xulqi, madaniyatidan tashkil topadi. Axloq esa aqliy, huquqiy, diniy, iqtisodiy va siyosiy bilimlar zahirida shakllanadi. Mazkur bilimlar o'z navbatida inson axloqiy sifatlarining kamol topib, boyib borishiga olib keladi. Demak, axloq insonning ijobiy sifatleri majmuidir. Odob va axloq bir-biri bilan uzviy bog'liqdir. Odob alohida bir shaxsning muayyan bir xislatini ifodalovchi axloqiy kategoriyadir.

Axloq - ijtimoiy ong shakllaridan biri bo'lib, uning mohiyati, shaxs xatti-harakatlari, shuningdek, ijtimoiy munosabatlar mazmunini ifodalaydi. Shu bois, axloq ijtimoiy hodisa sifatida jamiyat ma'naviy-ruhiy hayotida o'ziga xos muhim ahamiyatga ega. Axloq-odob jamiyatda, kishilar o'rtasida kundalik turmushda zarur bo'lgan hatti-harakatlar, urf-odatlar normalari, qoidalaridir. Barcha norma va qoidalarini kishilar tomonidan ado etilishini nazorat etish va tartibga solish ijtimoiy, yuridik asosda ta'minlanadi. Axloq - odob qoidalari va normalari xar bir xalqning qadriyatlarida muhim o'rin egallaydi. Unda o'sha xalqning turmush tarzi, madaniy saviyasi, an'analari, dini ifodalanadi, aks etadi. Shuning uchun axloq-odob qoidalari va normalari o'sha xalqning bitmas tuganmas ma'naviy boyligi hisoblanadi va millat darajasida shakllanganlik darajasi deb qaraladi. Axloq shaxs taraqqiyotining yuqori bosqichi bo'lgan ma'naviy komillik asosini, poydevorini tashkil etadi. Bir so'z bilan aytganda axloq- jamiyatda qabul qilingan, jamoatchilik fikri bilan ma'qullangan xulq-odob normalari majmuidir.

Ta'lim tizimini modernizatsiyalash jarayonlari odob-axloq tamoyillari va me'yorlarini hisobga olgan holda ta'lim jarayonini tashkil etish va amalga oshirish sifatini tubdan o'zgartirishi kerak. Qonunning asosiy qoidalari aynan shu yo'nalishda maktab ta'limini rivojlantirishga qaratilgan "Ta'lim to'g'risida" huquqiy, axloqiy me'yorlarga rioya qilish maqsadida davlat tomonidan professional standart kabi me'yoriy-huquqiy hujjatlar ishlab chiqilgan.

Boshlang'ich sinf o'quvchilarining axloqiy ko'nikmalarini shakllantirish o'quv jarayonida motivatsiyani oshirish, o'qituvchilar va bolalar orasidagi muloqotni rivojlantirish va o'qitishni jismoniy va ruhiy ravishda samarali qilish imkonini beradi. Bundan tashqari, o'quvchilarning o'ziga xos odob-axloq xususiyatlarini aniqlash va ularning shaxsiy o'sishlarini kuzatish va rag'batlantirish muhim omillardan biridir.

Islom dinida insonning go'zal fe'l-atvori, yaxshi xulqi inson hayotidagi barcha ne'matlardan ulug'dir. Islomiy odob (axloq) insonni qalbi va aqli bilan tarbiyalashga chaqiradi, shunda u birinchi navbatda ustoz va kitobga hurmat qo'yadi, u yerdan yaxshi xulq uchun ilm oladi .

Islom dinining axloqiy mazmuniga insonni o'z manfaati yo'lida yomonlikdan ogohlantiruvchi hadislar hikmatlari singib ketgan. Payg'ambarimiz Muhammad sollallohu alayhi vasallamning sahobalaridan biri Ibn Zayd aytadilar: "Sizga nasihat qilgan har bir so'z sizni yaxshilikka chaqiradi yoki sizni yomonlikdan saqlaydi. Bu hikmatdir" . Abu Ja'far Muhammad ibn Yoqub aytadilar:

"To'g'ri harakatni yuzaga keltiradigan har bir to'g'ri so'z hikmatdir" insonni to'g'ri yashashga chorlaydi, shuning uchun uning harakatlarini axloq va axloqiy fazilatlar boshqaradi.

O'qituvchining asosiy maqsadi – yangi avlodni davlat talablari asosida tarbiyalashdir. Binobarin, agar o'qituvchi zarur maqsadlarni belgilay olsa, ularni o'z

pedagogik faoliyatida ongli ravishda, tushunib e'tirof etsa, bu uning pedagogik faoliyatini osonlashtiradi.

Xulosa qilib shuni aytish kerakki, o'qib-uqqan, chuqur odob-axloqli, adolat va adolatsizlikning farqini tushungan inson qaysi yo'ldan borayotganligiga tushunib yetadi. Yurtiga nisbatan mehr, g'urur paydo bo'ladi. Natijada u ham Vatanning ravnaqiga munosib farzand sifatida o'z hissasini qo'shadi. Ajdodlarimiz yashab o'tgan, meni o'z bag'riga olib ulg'aytirayotgan Vatan uchun men nima qila oldim, meni go'dakligimdan yedirib-ichirgan ota-onam, ona zamin, qonlari tomirimda jo'sh urayotgan ajdodlarimiz sha'niga munosib ishlar qilayapmanmi, degan savollarini o'z vijdoni oldiga ko'ndalang qo'yadi. Demak, inson Vatanga muhabbatli, iymonli, adolatparvar bo'lishi muhimdir. Bunday fazilatlarni o'zida kasb etgan o'quvchilar qanday vaziyatda bo'lmasin hamma vaqt o'ziga to'g'ri yo'l tanlay oladi. Mustaqil jamiyatimizning kamol topishida o'zlarining chuqur bilimlari va adolatli hatti-harakatlarini ko'nikmaga aylantirishi yoshlarning asosiy vazifalaridir.

FOYDALANILGAN ADABIYOTLAR RO'YXATI:

1. Mirziyoyev Sh.M. "Milliy taraqqiyot yo'limizni qat'iyat bilan davom ettirib, yangi bosqichga ko'taramiz". 1-tom. - Toshkent: O'zbekiston, 2017. –B.592.
2. Muxtorov A, Sultonov T. Ta'lim sohasini rivojlantirish bo'yicha xorijiy tajribalar// "Iqtisodiyot va innovatsion texnologiyalar" ilmiy elektron jurnali. № 4, may, 2012. –B.2
3. Rahmatov M. Zaripov B. Iste'dodli insonlar mamlakatning bebaho boyligidir. Li Kuan YU hikmatlari. –Toshkent: "Zamin nashr" nashriyoti, 2019. –B. 12.
4. Azizxo'jayeva N.N. Pedagogik texnologiya va pedagogik mahorat. - T.: TDPU
5. G'oziev E. Pedagogik texnologiyalarning psixologik masalalari // Xalq ta'limi. – Toshkent: 1999. – № 6. – B. 36-38.

DEVELOPMENT OF FOOD INDUSTRIES IN THE SOUTHERN REGIONS OF UZBEKISTAN: HISTORICAL ANALYSIS AND CONSEQUENCES

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Annotatsiya. O'zbekiston janubiy viloyatlarida oziq-ovqat sanoat tarmoqlarining yuzaga kelishi, rivojlanishi va mazkur jarayondagi muammoli holatlar ilmiy manbalar asosida tarixiy tahlil etiladi.

Kalit so'zlar: Sanoat, oziq-ovqat sanoati, zavod, un sanoati, vino sanoati, yog' sanoati, yengil sanoat, sabzavot konserva sanoati, kadrlar siyosati .

Аннотация. На основе научных источников основан исторический анализ возникновения и развития пищевой промышленности в южных регионах Узбекистана и проблемных ситуаций в этом процессе.

Ключевые слова: Промышленность, пищевая промышленность, заводы, мукомольная промышленность, винодельческая промышленность, нефтяная промышленность, легкая промышленность, овощеконсервная промышленность, кадровая политика.

Abstract. Historical analysis of the emergence and development of food industries in the southern regions of Uzbekistan and problematic situations in this process is based on scientific sources.

Key words: Industry, food industry, factory, flour industry, wine industry, oil industry, light industry, vegetable canning industry, personnel policy.

Due to economic reforms in Uzbekistan in recent years, structural changes have been made in the country's industrial production system, and a wide path has been opened for modern industrial development. A number of successes are being achieved in terms of democratization of economic life, fundamental changes in the political system of the industry, establishment of a new form of management and composition of various forms of ownership of industrial enterprises, and training of industry personnel. As the President of the Republic of Uzbekistan Shavkat Mirziyoyev noted: "Special attention should be paid to the effective implementation of the policy in the field of industry, the organization of the industry on an innovative basis, and the stimulation of the production of products with high demand in foreign markets."¹

¹ Mirziyoyev Sh.M. Yangi O'zbekiston strategiyasi. – T.: "O'zbekiston" NMIU, 2021. – B. 134.

The positive solution of the complex tasks that are being set today depends to a large extent on its history. Therefore, determining the prospects for the future by studying the history of the field, analyzing it in every way, and using generalized conclusions is becoming one of the urgent issues of the history of Uzbekistan. In particular, the history of the emergence of several branches of the industry, in particular, the development of the food industry, is recognized as one of the most complex and, at the same time, interesting topics. During this period, the Soviet state put forward the idea of "socialist construction" in the industrial sector and made serious changes in the establishment of the system. In the scientific articles, literature and dissertations created during this period, the main focus is on the industrialization policy, the growth rate in the industry, the increase in the number of workers, the number of factories and enterprises has increased from year to year, and the essence of the industrialization policy is the point of view of objectivity and truthfulness. not learned by implication.

During the period of independence, the history of all fields was scientifically interpreted based on a new theoretical methodology, and scientific articles, new literature, dissertations were written on the history of the field. Although there is a lot of work devoted to the history of the economic life of Uzbekistan, including the industrial sector, there were some shortcomings in them. Also, the history of the industrial sector of Uzbekistan in the 1920s-1940s was not selected as a special research object in any of the studies. Historians assessed the industrialization of the country based on the work carried out during the five-year plans in the research of the Soviet era. However, in the study, the period of industrialization carried out in Uzbekistan was divided into two periods, analyzed and researched.

Some work has been done to establish the food industry in the Uzbek SSR. For example, the production of oil, flour, wine, canned food was increased, and measures were taken to meet the needs of the population.

In 1921-1922, the Tortkol oil factory was restored and produced 2448 pounds of oil.

In 1924, 6 oil factories were operating in Uzbekistan. In 1923-1924, this plant produced 336,000 pounds of oil, and in 1924-1925, it produced 1,060,000 pounds of oil. In the 1924-1925 economic year, 688,000 pounds of cottonseed oil were sent to Moscow through the Main Cotton Committee. In mid-1923, due to the high cost of cottonseed oil, the price of 1 pound of cottonseed oil rose to 12 rubles, and the sale of cottonseed oil decreased. This year, a lot of sunflower oil was imported from Russia and sold for 6 rubles per pound.

Factory-type flour milling enterprises appeared in Uzbekistan at the end of the 19th century. During this period, there were more than 5,000 mills in the territory of Uzbekistan, where bran flour was milled, the productivity of which was several centners per day. In 1877, Russian merchants built and put into operation a mill that

produced 10 tons of flour per day in Tashkent. In 1883, the first factory-type enterprise started working in Tashkent.

The flour industry trust of the Republic of Turkestan was established in 1920, and at that time it included 21 flour enterprises and 6 rice factories. During this period, in connection with the decrease of grain coming to Central Asia from Russia, there was also a decline in the flour industry, and factors such as the age of the mills, technical equipment falling into a state of unfitness for use, as well as the lack of water, hindered the development of this sector. In 1924, grinding 1 pound of grain in a mill cost 35 tyins. In 1924-1925, 2,466 thousand pounds of flour were sold. "Sredazkhleb" joint-stock company has 12 mills with 3.8 mln. a pound of grain was crushed. 160,000 rubles will be allocated for re-technical equipment of these mills.

In Uzbekistan, certain works have been carried out in the field of wine production. "Turkvino" Tashkent department mainly has 2 enterprises, i.e. I.I. Pervushkina factory and Degress winery were supervised. I.I. The Pervushkina plant received raw materials for the production of alcohol mainly from the Melon sugar plant. The plant produced 1,613 buckets of first grade alcohol in one month. "Degress" winery produced 300 buckets of aromatic drink "Alma-Buza" from 10 pounds of apples. The strength of Turkestan wine went up to 20o. During the war years, wine production went back a bit.

In 1925, due to the bad grape harvest, there was a setback in the work of the wine industry. Since the end of the season was cold, most of the crop was frozen before it was harvested. Of the 607,000 poods of grapes to be prepared, only 178,000 poods were prepared, and the plan was completed by 21%. The price of one pound of grapes is 1 ruble 25 kopecks by the state. was set as But because this price was too low, the farmers almost did not hand over the harvest to the points. "Uzbekvino" organization had to buy wine products from the Caucasus. Wineries have increased the extraction of alcohol from bread and raisins. As a result, the production of vodka increased. The price of wine increased. In 1924-1925, the price of a bucket of wine was 4 rubles 92 kopecks, and in 1925-1926 it was 6 rubles 31 kopecks. The price of 1 degree of alcohol increased from 24.4 kopecks to 33.2 kopecks.

The wine production industry in Uzbekistan was managed by the "Turkvino" trust. 535,000 buckets of wine were produced in Central Asia in one year, so 385,000 buckets fell to Uzbekistan. In 1924-1925, wine worth 1298 thousand rubles was produced in Uzbekistan.

During this period in Central Asia, only one sugar factory was involved in the production of sugar, that is, the Melon sugar factory. This factory was founded by the retired officer V.M. in the present city of Yangiyol in Tashkent region It was built by Ivanov in 1904 near the Kaufman station of the Central Asian Railway. The plant produced 300 pounds of sugar per year as a hydroelectric plant. This enterprise was closed in 1911 due to financial difficulties.

An attempt was made to re-open the Kovunchi sugar factory in 1922. But due to lack of raw materials for sugar production, the factory stopped working again. Sugar began to be brought to Uzbekistan from Ukraine, and 3 million pounds of sugar were imported every year. However, the cultivation of beets, considered one of the main raw materials for sugar, was more favorable in the climate of Central Asia. For example, Tashkent region is considered one of the main beet growing areas. Sugar content in Ukrainian beets is 16.4%, while in Uzbekistan it is 19-23%.

In 1922, the factory produced 43,550 pounds of first grade sugar and 1,921 pounds of second grade sugar. During this period, beets were planted on 488 decimeters in Qovunchi region, 150 decimeters in Old Tashkent, 145 decimeters in Chinoz, 100 decimeters in Keles, totaling 883 decimeters. Due to the high price of cotton compared to beets, farmers mainly focused on increasing the area of cotton.

The only sugar factory in Uzbekistan was also closed under various pretexts. This was one of the measures taken to strengthen the interdependence of the republics of the Union.

During this period, the growth of the need for food industry products directly motivated the establishment of more industrial enterprises in this field. Most of the local population had limited access to factory-made food products. This type of food products were mainly consumed by urban residents, while rural residents consumed products prepared by themselves.

Industrial enterprises producing food products produced products based on local raw materials.

In 1936, the Kattakurgan oil extraction plant, one of the largest in the Soviet state, was put into operation.

In the pre-war period, enterprises of the vegetable canning industry in Uzbekistan were located mainly in Tashkent and Fergana regions. In 1938, 5.87 million pieces of cans and 3.8 thousand tons of dry fruits were produced in Uzbekistan, and in 1940, 26.4 million pieces of cans of fruits and vegetables and 12.1 thousand tons of dry fruits were produced. Analyzing the figures related to this area, the difference between the regions is revealed. For example, in 1940, 23,000 tins of cans were produced in Tashkent region, 59,000 in Kashkadarya region, 20,000 in Karakalpakstan, and 15,000 in Khorezm. This industry will also be established in Bukhara, Syrdarya and Surkhandarya regions.

The Soviet state paid particular attention to the fishing industry. This industrial sector was established mainly in the Karakalakh ASSR, 123,000 rubles were allocated in 1928, and 2.1 million rubles in 1937.

1934 1436 workers worked at the Moynoq fish factory. This factory produced products worth 565 thousand rubles in 1933 and 1826 thousand rubles in 1940. The construction of the Moynok meat and fish canning factory began in 1935. The largest fish seed cleaning plant in the former Soviet Union was launched in Nukus in 1934.

In the southern regions of Uzbekistan, measures were taken to establish the food industry, and a number of small-scale enterprises were launched.

In 1937, an oil factory was opened in Termiz, in 1938, a bread factory, and in 1939, a wine factory was opened in Denov.

The percentage of vegetable oil in the food industry is high, and it is explained by the low percentage of confectionery, pasta and beer products. In 1940, there was no increase in the production of meat and meat products.

From 1940 to 1934, 1436 workers worked at the Moynok fish factory. This factory produced products worth 565 thousand rubles in 1933 and 1826 thousand rubles in 1940. The construction of the Moynok meat and fish canning factory began in 1935. The largest fish seed cleaning plant in the former Soviet Union was launched in Nukus in 1934.

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1,591 tons of meat and meat products produced in Uzbekistan fell to Bukhara region, 800 tons to Khorezm, and 303 tons to Kashkadarya region.

Fergana, 43,562 tons of Andijan, 21,081 tons of Samarkand accounted for 45,878 tons of vegetable oil produced in Uzbekistan this year. Vegetable oil was 15 tons in Surkhandarya and 27 tons in Karakalpakstan ASSR.

In 1933-1937, 22.7 mln. rubles, 20.3 million rubles were allocated in 1938-1940. The main part of the allocated funds was spent on the Kungirov cotton ginning plant and the Moynaq fish-meat canning plant.

In 1933 there were 5 large industrial enterprises in Karakalpakstan, and by 1940 their number will be 89.

As a result of the industrialization policy implemented by the former USSR, some historians, especially in the studies of the Soviet era, recognize the five-year plans as important stages in the industrialization policy of the former USSR. Before the war, 3 five-year plans were adopted, that is, the first five-year (1928-1932), the second five-year (1933-1937), and the third five-year (1938-1942) plans. It is natural for historians to evaluate the industrialization of the country based on the work carried out during these five-year plans, to recognize that certain results have been achieved in the industry. However, we propose to analyze and research the period of industrialization carried out in Uzbekistan into two periods:

First period. 1925-1932 years. This period was the artificial acceleration of industrialization and as its consequences, the violation of the necessary proportions in

industrial construction in the Uzbek SSR, administrative order, unclear tasks, shortage of specialist personnel, lack of creation of higher education institutions and workers' training system in the field of industry. is explained by the definition of non-existent tasks.

Second period. 1933-1941 years. This period is explained by the establishment of large industrial enterprises in Uzbekistan, the establishment of machine-building, energy, chemical industry, sericulture, viticulture and agricultural products processing enterprises in general, as well as the development of heavy industry.

Some foreign researchers have given a positive assessment of the industrialization policy implemented in the USSR, and it is noted that in the late 30s of the 20th century, the USSR took the second place in the world after the USA in terms of the absolute volume of industrial production. Industrial technology could be created in the USSR, and unlike the West, there was no market economy and civil society in the USSR.

V. Lelchuk in his pamphlet "Industrialization of the USSR: history, experience, problems" gives a high assessment of the process of industrialization in the USSR and expresses the following points:

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fourthly, an important feature of Soviet society until the 70s was its aspiration to the future, its willingness to endure fear and terror, strict discipline and submission to inhuman technologies for a bright future for its children and future generations in general ".

So, even in the pre-war years in Uzbekistan, the tendency to accelerate the industrial sector was continued, and the specialization of the republic's economy as the main cotton base of the former Union was intensified. During this period, the weight of industrial production in the national economy of Uzbekistan increased from year to year, but the main industrial enterprises were under the control of the union, and the weight of such enterprises made up 90 percent of all industrial enterprises.

LIST OF REFERENCES:

1. To‘xtayev A.Q. O‘zbekistonda milliy hunarmandchilik va uni sotsialistik asosda sanoatlashtirishning ijtimoiy oqibatlari (1917 – 1941-yillar) // Tarix fanlari nomzodi ilmiy darajasini olish uchun yozilgan dissertatsiya avtoreferati. – T., 2001. – 11 bet.
2. To‘xtayev A.Q. Surxondaryo viloyati an’anaviy sanoat korxonalarini tarixi (1930 – 1940 yy). – Termiz davlat universiteti professor – o‘qituvchilarining XXVIII ilmiy-nazariy konferensiya ma’ruzalar to‘plami. – Termiz, 1996; – 87 bet.
3. Jo‘raqulov O., Ergasheva J. Qashqadaryo sanoati tarixi. – Qarshi: Nasaf, 1996; – 65 bet
4. Mamatqulov B.SH.O‘zbekistonda sanoatlashtirish siyosatining amalga oshirilishi va uning oqibatlari (1925-1941-yy.); Monografiya. T.: “Lesson Press” MCHJ nashriyoti. - 2023. -134 b.
5. Mo‘minov N. M. Sovetlarning O‘zbekistonni sanoatlashtirish uchun kurashi. (1928 – 1932-yillar). – T., 1959. – 107 bet
6. Ziyodullayev S. Manoxin I. Sovet O‘zbekistonining sotsialistik sanoati. – T., 1949. – 144 bet.
7. Qobulov E. Surxondaryo sanoatining ilk odimlari. – Termiz: Jayxun, 1993-12 bet

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INDUSTRIAL MEASURES IN UZBEKISTAN 1925-1954 AND THEIR RESULTS (in the case of Kashkadarya and Surkhandarya regions)

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Annotatsiya. O'zbekiston janubiy hududlari Qashqadaryo va Surxondaryo viloyatlarida 1925-1954- yillarda sanoat sohasida amalga oshirilgan tadbirlar va ularning natijalari gaz-oltingugurt sanoatining yuzaga kelishi va rivojlanish tarixi ilmiy asosda tahlil qilingan.

Kalit so'zlar: O'zbekiston SSR, to'qimachilik, mashinasozlik, energetika, o'gir sanoat, fabrika, kimyo sanoati, zavod, infrastruktura, fabrika.

Аннотация. Анотированная история появления и развития газосернистой промышленности в южных регионах Узбекистана, в Кашкадарьинской и Сурхандарьинской областях, была проанализирована на научной основе по мерам, реализованным в промышленной сфере в 1925-1954 годах и их результатам.

Ключевые слова: Узбекская ССР, текстиль, машиностроение, energetika, обрабатывающая промышленность, фабрика, химическая промышленность, завод, инфраструктура, фабрика.

Abstract. The history of the emergence and development of the gas-sulfur industry in the southern regions of Uzbekistan, in the Kashkadarya and Surkhandarya regions, was analyzed on a scientific basis by the measures implemented in the industrial sphere in 1925-1954 and their results.

Key words: Uzbekistan SSR, textile, machinery, energy, manufacturing, factory, chemical industry, factory, infrastructure, factory.

Even in the 1930s, the trend of unreasonably accelerating the pace of industrial construction continued in Uzbekistan. In the economy of the republic, the specialization of the country as the main cotton base was further strengthened. Also, tasks were set to increase textile, mechanical engineering, energy, chemical industry, silk production, viticulture and agricultural products processing enterprises in general. Industrial enterprises in Uzbekistan were organized mainly in accordance with the interests of the Center, and no one was interested in the issue of building plants and factories necessary for the population of the region.

During the five years before the war, the share of industry in the national economy increased from 43% in 1928 to 70% in 1940. But the industry was under the control of the Centre. For example, in the mid-1930s, 90 percent of enterprises in Uzbekistan were owned by the union[1, 8].

189 industrial enterprises were launched in the second five-year period. During this period, 365.7 million rubles or 17.6% of the funds planned to be spent on the national economy were allocated to the heavy industry of Uzbekistan. Most of the established industrial enterprises were completely new for Uzbekistan. These include factories and factories related to thread, gauze, silk spinning, tailoring, fur production, footwear, agricultural machinery. But there were disparities in the placement of industrial enterprises by regions of Uzbekistan.

In 1933, 40% of Uzbekistan's industrial enterprises were located in Tashkent region, 31.4% in Fergana, 11.1% in Zarafshan, 6% in Kashkadarya, 5.3% in Surkhandarya, and 6.4% in Khorezm region [2, 4].

In 1940, the location of Uzbekistan's industrial enterprises by region shows that most industrial enterprises operated in the regions of Tashkent, Fergana and Samarkand, while the number of industrial enterprises in the regions of Kashkadarya, Surkhandarya and Khorezm was small.

In our opinion, the reasons for the inconsistencies in the location of large industrial enterprises in the region are:

Firstly, due to the number of people living in the regions, more industrial enterprises were established in densely populated regions;

Secondly, there were industrial enterprises in the territory of Uzbekistan until 1925, if the slowness in the establishment of industrial enterprises in Bukhara and Khorezm is explained as complications of the monarchy system, there are opportunities for the establishment of new industrial enterprises in the territory of Turkestan, Fergana and Tashkent construction of industrial enterprises in the districts was carried out quickly;

Thirdly, the establishment of industrial enterprises in the regions where there are railways was a matter for the interests of the Center, as well as for the transportation of the country's wealth. For example, in Surkhandarya and Kashkadarya, which grow the main raw materials of cotton, large cotton ginning factories were hardly built in 1925-1940, but these areas were the main cotton-growing regions;

Fourthly, the infrastructure, i.e. electricity, roads, as well as the organization of secondary special and higher educational institutions in the matter of personnel training, was determined depending on the number of industrial enterprises in the regions.

Fifth, crafts have been developed in Fergana, Tashkent and Samarkand regions since ancient times.

The mining industry was also continuously developed during this period. Coal production and its industrial use have been increasing year by year. For example, 1500 thousand rubles in 1934, 2380 thousand rubles in 1934, 3970 thousand rubles in 1935, 5925 thousand rubles in 1936, and 8000 thousand rubles in 1937 were produced. From 1933 to 1930, coal production increased by 570 percent.

O‘zbekistonda ko‘mirni sanoat ulushida qazib olish 1930-yillarning oxiridan boshlandi. 1932-1937-yillarda O‘zbekistonda toshko‘mir ishlab chiqarishda o‘shish jarayoni kuzatildi. Masalan, Norin №1 shaxtasida toshko‘mir ishlab chiqarish 1933-1937-yillarda 100 ming tonnadan 700 ming tonnaga, Shurab №8 shaxtasida toshko‘mir ishlab chiqarish shu yillarda 100 ming tonnadan 500 ming tonnaga ko‘paydi [3, 219].

Industrial coal mining in Uzbekistan began in the late 1930s. In 1932-1937, a growth process was observed in the production of coal in Uzbekistan. For example, coal production at Norin No. 1 mine increased from 100,000 tons to 700,000 tons in 1933-1937, coal production at Shurab No. 8 mine increased from 100,000 tons to 500,000 tons in these years [3, 219].

Despite the rich sources of raw materials in Uzbekistan, there was almost no chemical industry until the 30s of the 20th century. A number of small enterprises engaged in burning lime, extracting vegetable dyes, producing sulfur, preparing alkaline substances, and trading.

The emergence of the modern chemical industry began with the opening of the Shorsuv sulfur mine in the Fergana Valley. In 1932, the construction of the Chirchik Electrochemical Plant began, and this enterprise began to produce products in October 1940. This year, the contribution of the chemical industry to the total industrial output of the republic will be 0.8%, and the number of workers employed in this industry is 1.5%.

In the second and third five-year periods, all measures were taken to develop cotton production in Uzbekistan. Cotton cultivation areas were expanded. In 1933, 795,671 tons of cotton were grown in Uzbekistan, and in 1937, this figure reached 1,116,325 tons. It increased from 431,246 tons to 588,300 tons in Ferghana, from 46,151 tons to 75,400 tons in Khorezm. The area of cotton in the Fergana Valley has increased by 4.6 thousand hectares. Productivity increased by 34 percent. And in Khorezm, productivity is increased by 60 percent.

In 1934, there were 37 cotton ginning factories in Uzbekistan, 45% of which were located in Fergana, 18% in Zarafshan oasis, 13% in Tashkent, 11% in Khorezm, 8% in Surkhandarya and Kashkadarya, and 5% in Bukhara region [4, 302].

Since the central cities of the Cotton Union were mainly raw materials for textile factories, its production increased. Also, the production of cotton fiber has

been increased year by year. In 1924-1925, 64,500 tons of cotton fiber were produced, and in 1940, 538,000 tons were produced. 178,400 tons of cotton fibers produced in the republic went to Andijan, 98,200 tons to Fergana, 21,000 tons to Surkhandarya, 36,300 tons to Khorezm region and 7,800 tons to Kashkadarya.

Since 1937, the weaving of gauze from artificial silk began. Uzbekistan has had its own methods and traditions of making shoes since ancient times. Shoemakers hand sew boots, maxi, and kavush in various patterns for different strata of the population. The first shoe factory was opened in Tashkent in 1927. In 1935, the second shoe factory was launched in this city. This type of enterprise was launched in 1938 in Bukhara, in 1939 in the cities of Samarkand, Tortkol, and Termiz, and in 1940 in the cities of Andijan, Kokan, Chirchik, and Namangan. This year, 3,823,000 pieces of footwear were produced in Uzbekistan, of which 3,025,000 pieces were produced in Tashkent, 15,000 pieces in Kashkadarya, and 8,000 pieces in Surkhandarya. Compared to the industrial enterprises under the control of the Union of Uzbekistan, less funds were allocated to local industrial enterprises.

In the 1930s, the development of local crafts became a secondary issue. The number of craft artels in the republic decreased year by year. For example, in 1933 there were 495 handicraft factories in Uzbekistan, and in 1938 their number decreased to 321. In 1938, handicrafts produced products worth 402.7 million rubles.

In the pre-war period, enterprises of the vegetable canning industry in Uzbekistan were located mainly in Tashkent and Fergana regions. In 1938, Uzbekistan produced 5.87 million cans and 3.8 thousand tons of dried fruit, and in 1940, 26.4 million cans of fruits and vegetables and 12.1 thousand tons of dry fruit were produced. Analyzing the figures related to this area, the difference between the regions is revealed. For example, in 1940, 23,000 tin cans were produced in Tashkent region, 59,000 in Kashkadarya region, 20,000 in Karakalpakstan, and 15,000 in Khorezm. This industry will also be established in Bukhara, Syrdarya and Surkhandarya regions.

Sovet davlat baliqchilik sanoatiga muayyan e'tibor qaratdi. Mazkur sanoat tarmog'i asosan Qoraqalog'iston ASSR yo'lga qo'yilgan bo'lib, 1928-yil 123,0 ming rubl, 1937-yil 2,1 mln rubl ajratildi[5, 271].

The Soviet state paid particular attention to the fishing industry. This industrial network was established mainly in the Karakalakh ASSR, 123,000 rubles were allocated in 1928, and 2.1 million rubles in 1937 [5, 271].

1934 1436 workers worked at the Moynok fish factory. This factory produced products worth 565 thousand rubles in 1933 and 1826 thousand rubles in 1940. The construction of the Moynok meat and fish canning factory began in 1935. The largest fish seed cleaning plant in the former Soviet Union was launched in Nukus in 1934.

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Sobiq SSSR tomonidan amalga oshirilgan sanoatlashtirish siyosati natijasi sifatida ayrim tarixchilar, xususan sovet davri tadqiqotlarida besh yillik rejalar sobiq SSSRning sanoatlashtirish siyosatidagi muhim bosqichlari sifatida e'tirof etiladi. Urushgacha 3 ta besh yillik rejalar ya'ni, birinchi besh yillik (1928-1932-yy), ikkinchi besh yillik (1933-1937-yy), uchinchi besh yillik (1938-1942-yy) rejalarini qabul qilingan. Mazkur besh yillik rejalar davrida amalga oshirilgan ishlar bo'yicha tarixchilar mamlakatning sanoatlashuviga baho berishlari, industriya sohasida ma'lum natijalarga erishilganligini e'tirof etishlari tabiiy. Biroq, biz tomonimizdan O'zbekistonda amalga oshirilgan sanoatlashtirish davrini ikki davrga ajratgan xolda, tahlil va tadqiq etish taklif etiladi:

As a result of the industrialization policy implemented by the former USSR, some historians, especially in the studies of the Soviet era, recognize the five-year plans as important stages in the industrialization policy of the former USSR. Before the war, 3 five-year plans were adopted, that is, the first five-year (1928-1932), the second five-year (1933-1937), and the third five-year (1938-1942) plans. It is natural for historians to evaluate the industrialization of the country based on the work carried out during these five-year plans, to recognize that certain results have been achieved in the industry. However, we propose to analyze and research the period of industrialization carried out in Uzbekistan into two periods:

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Secondly, the industrial type of production may initially be formed in some sectors of the economy. In industrialization, attention was paid to the priority development of heavy and defense industry.

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So, even in the pre-war years in Uzbekistan, the tendency to accelerate the industrial sector was continued, and the specialization of the republic's economy as the main cotton base of the former Union was intensified. During this period, the weight of industrial production in the national economy of Uzbekistan increased from year to year, but the main industrial enterprises were under the control of the Union, and the weight of such enterprises made up 90% of all industrial enterprises.

LIST OF REFERENCES:

1. R-767-fond- Butunittifoq paxta sanoati xodimlari kasaba uyushmasining O'rta Osiyo viloyat qo'mitasi fondi, 1-ro'yhat, 49- yig'ma jild, 8-varaq.
2. Yoqubov G'ulom. Sanoatimizdagi o'pirilishlarga qarshi kurashimiz! // Qizil O'zbekiston. - 1930.- 21-fevral;
3. Jo'raqulov O., Ergasheva J. Qashqadaryo sanoati tarixi. – Qarshi: Nasaf, 1996; 219 bet
4. Mo'minov N. M. Sovetlarning O'zbekistonni sanoatlashtirish uchun kurashi. (1928 – 1932-yillar). – T., 1959. – 302 bet
5. Tursunov S. va boshqalar. Surxondaryo tarixi. – T., 2004. – 271 bet.

DILATED CARDIOMYOPATHY ETIOLOGY AND PATHOGENESIS

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Annotation

Causes and conditions for the occurrence of dilated cardiomyopathy, external and internal causative factors, types of conditions, mechanism of disease development, stages of disease development, consequences of the disease

Key words: Dilated cardiomyopathy

Dilated cardiomyopathy (DCM) is a disease of the heart muscle characterized by dilatation and systolic dysfunction of the left ventricle in the absence of filling disorders (hypertension, valvular disease) or coronary artery disease that can cause global worsening of systolic dysfunction. RV dilatation and dysfunction may also be present, but this is not necessary for diagnosis. Link: (<https://compendium.com.ua/clinical-guidelines/cardiology/section-12/glava-9-dilatatsionnaya-kardiomiopatiya/>)

Dilated cardiomyopathy (DCM) is a disease characterized by dilatation and decreased global contractility of the left ventricle or both ventricles. In the clinical picture of this disease, the main syndrome is progressive chronic heart failure (CHF). Arrhythmias, thromboembolism and sudden death are also typical. Data from histological examination of the myocardium are nonspecific. A feature of the 1995 WHO classification was the identification of new types of DCM: idiopathic, familial/genetic, viral and/or immune, alcoholic/toxic, associated with overt cardiovascular disease, in which the degree of myocardial damage cannot be explained by changes in afterload, preload or severity of ischemia. In addition to this, the term “specific cardiomyopathy” appeared - myocardial damage occurring against the background of specific heart diseases or systemic processes, mainly leading to LV dilatation, a decrease in its ejection fraction (EF) and severe CHF - i.e., in essence, to the development of DCM. In Russia, the term “ischemic cardiomyopathy” has become quite widespread. According to the 1995 WHO classification, this disease is one of the forms of coronary artery disease, in which multiple lesions of the coronary arteries and widespread diffuse fibrosis of the LV myocardium are detected, as well as dilatation of the heart cavities, decreased myocardial contractility, impaired intracardiac hemodynamics and symptoms of CHF, which cannot be explained by the severity of coronary disease and/or myocardial ischemia. In this case, the presence of true LV aneurysms excludes the diagnosis of ischemic cardiomyopathy. However, in our

country, some cardiologists and cardiac surgeons by ischemic cardiomyopathy, on the contrary, mean the presence of one or more post-infarction aneurysms with secondary LV dilatation and severe heart failure, which introduces some confusion.

Epidemiology

It is difficult to judge the true prevalence of DCM, since the frequency of its detection in different regions is not the same. Idiopathic DCM is observed in 0.4 cases per 1 thousand population, 0.08 new cases per 1 thousand population are detected annually, which is approximately 25% of all cases of cardiomyopathy and is the cause of the annual death of 10 thousand patients. Men get sick on average 3 times more often than women.

Dilated cardiomyopathy is a dysfunction of the myocardium, leading to heart failure, in which ventricular dilatation and systolic dysfunction predominate. Symptoms include shortness of breath, fatigue, and peripheral edema. Diagnosis is based on clinical findings and elevated levels of natriuretic peptides, chest x-ray, echocardiography and MRI. Treatment is focused on eliminating the causes of the disease. If heart failure is severe and progressive, cardiac resynchronization therapy, ICD, relief of severe mitral regurgitation, left ventricular support, or heart transplantation may be indicated.

Etiology

The etiology of DCM has not been definitively established. Many researchers adhere to the polyetiological hypothesis of the origin of the disease - enough cases of the development of DCM, which is the end result of various pathological processes, have been described. There are idiopathic, familial (or genetic), viral (and/or immune) and DCM associated with known cardiovascular diseases.

Idiopathic DCM, which is a primary myocardial disease of unknown cause, develops in 40% of patients. Familial DCM is mainly associated with mutations in cytoskeletal and extracellular matrix genes.

Recently, significant progress has been made in the field of molecular genetics of DCM. In 20% of patients, the disease is inherited or there are indications in the family history. In hereditary forms, the type of inheritance has been established as autosomal dominant, autosomal recessive, and also associated with the X chromosome of the gene or mitochondrial transmission. Mutations were identified in the genes of cardiomyocytes that encode contractile proteins or their regulatory elements, including components of the sarcomere, cytoskeleton, as well as various mechanisms that ensure the coupling of excitation-contraction processes, beta-adrenergic pathways and processes leading to a deficiency of energy mechanisms, including mitochondrial mutations, glycogen metabolism, calcium metabolism, and transcription regulation.

The occurrence of DCM is associated with variants of actin gene mutations; the pathology of the dystrophin protein gene, which is part of the complex that connects

the muscular cytoskeleton of the cardiomyocyte with the extracellular matrix, is also important.

The results of the CARDIGENE study (1999) indicate that in DCM, genetic disorders of the endothelin pathways and polymorphism of the endothelin receptor type A gene are important - the first identified genetic risk factor for the development of the disease.

There is a viral-immunological theory of the occurrence of DCM. In DCM, a number of immune regulation disorders have been identified, including humoral and cellular autoimmune reactivity towards myocytes, a decrease in the content and cellular activity of natural killer cells, and abnormalities in the activity of suppressor cells. The presence of disturbances in immune regulation and a variety of anti-myocardial antibodies in DCM is consistent with this hypothesis: in an immunological study, an increase in titers of antibodies to the Coxsackie B3 virus was detected in 40% of patients with DCM and only in 2% in the group of healthy individuals, while it was not detected in endomyocardial biopsies signs of myocarditis. In 50% of patients with DCM, antibodies to the myocardium are detected, in 49% - anti-interfibrillar antibodies, in 30% - sensitization to cardiac antigen. Activation of autoimmune processes leads to the formation of antibodies to myosin and β 1-adrenergic receptors.

The reason for the suppression of the activity of natural killer cells may be a primary violation of their maturation, determined by antigens of the HLA system; in patients with DCM, haplotypes HLA B27, HLA A2, HLA DQ4 and HLA DR4 are most often detected, which indicates a hereditary predisposition to the disease and indicates its possible immune basis. Despite the identification of humoral immunity disorders, in general, the viral-infectious-autoimmune hypothesis remains unproven today. Link: (<https://compendium.com.ua/clinical-guidelines/cardiology/section-12/glava-9-dilatatsionnaya-kardiomiopatiya/>)

Dilated cardiomyopathy has many known and likely many unknown causes (see table Causes of Dilated Cardiomyopathy [Causes of Dilated Cardiomyopathy]). More than 20 viruses can cause dilated cardiomyopathy. Temperate climate virus V zonax group V is the most common. In Central and South America, the most common cause of infection is Chagas disease, caused by *Trypanosoma cruzi*.

Other causes include long-term (chronic) tachycardia, HIV infection, toxoplasmosis, thyrotoxicosis and chronic diseases. Many toxic substances, especially alcohol, various organic solvents, iron ions and heavy metal ions, as well as specific chemotherapy drugs (for example, doxorubicin, trastuzumab), cause heart damage. Frequent ectopic ventricular rhythm (>10,000 ventricular extrasystoles per day) associated with left ventricular systolic dysfunction.

Sudden emotional stress and other hyperadrenergic conditions can lead to acute dilated cardiomyopathy, which is usually reversible (eg, prolonged tachycardia). The main cause is acute apical balloon cardiomyopathy (also called takotsubo

cardiomyopathy, stress-induced cardiomyopathy, or broken heart syndrome). This disease affects the apex, and sometimes even the second individual gastric tract, causing regional wall dysfunction and, in some cases, fecal dilatation (ballooning).

Genetic factors are important in 20–35% of cases; >60 known genes and loci associated with disease development.

As a primary myocardial disease, cardiac muscle dysfunction in dilated cardiomyopathy causes other disorders that can cause myocardial dilatation, for example, in the heart in acute coronary heart disease with pathological, occlusive ventricular hypertrophy due to changes in pressure and volume (for example, hypertension, valvular heart disease). It is believed that in some patients dilated cardiomyopathy begins with acute myocarditis (probably viral in most cases), accompanied by variable latency space, spatial diffuse necrosis of cardiomyocytes (as a result of an autoimmune reaction to damage to viral myocytes) and chronic fibrosis. Regardless of the cause, the myocardium dilates, thins, and compensatory hypertrophies (see figure Types of Cardiomyopathy [Forms of Cardiomyopathy]), often leading to functional mitral regurgitation and/or tricuspid regurgitation, as well as atrial enlargement.

Most patients have both stomachs, only the left ventricle (LV) and the right ventricle (RV).

Mural thrombi can occur as a result of blood stasis when the heart chamber is significantly enlarged and nonfunctional. Cardiac tachyarrhythmias often complicate the course of acute myocarditis and the late phase of chronic dilatation, and the development of atrioventricular block is possible. The consequence of dilatation of left atrial fibrillation often leads to atrial fibrillation.

Recommended reading

1. Jamshidovich, A. S. (2024). ВСЕ ЭФФЕКТЫ ПРЕПАРАТА ИМУДОН. *TADQIQOTLAR*, 31(2), 39-43.
2. Jamshidovich, A. S. (2024). SPECIFIC FEATURES OF THE EFFECT OF THE HEPARIN DRUG. *TADQIQOTLAR*, 31(2), 34-38.
3. Jamshidovich, A. S. (2024). USE OF GLUCOCORTICOSTEROIDS IN PEDIATRIC PRACTICE. *TADQIQOTLAR*, 31(2), 29-33.
4. Jamshidovich, A. S. (2024). РОЛЬ ИНТЕЛЛАНОВОГО СИРОПА И ЦИАНОКОБАЛАМИНА В УЛУЧШЕНИИ ПАМЯТИ. *TADQIQOTLAR*, 31(2), 44-48.
5. Jamshidovich, A. S. (2024). TREATMENT OF POLYNEUROPATHY WITH BERLITHION. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 201-209.
6. Jamshidovich, A. S. (2024). USE OF ASCORIL IN BRONCHIAL ASTHMA. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 191-200.

7. Jamshidovich, A. S. (2024). THE IMPORTANCE OF THE DRUG ARTOXAN. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 182-190.
8. Jamshidovich, A. S. (2024). THE ROLE OF RENGALIN IN CHRONIC BRONCHITIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 116-123.
9. Jamshidovich, A. S. (2024). THE ROLE OF ALMAGEL DRUG IN GASTRIC AND DUODENAL WOUND DISEASE. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 173-181.
10. Jamshidovich, A. S. (2024). THE ROLE OF CODELAK BRONCHO SYRUP IN CHILDREN'S PRACTICE. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 109-115.
11. Jamshidovich, A. S. (2024). THE AEVIT DRUG EFFECT. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 124-132.
12. Jamshidovich, A. S. (2024). THE IMPORTANCE OF ALCHEBA DRUG IN POST-STROKE APHASIA. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 132-138.
13. Jamshidovich, A. S. (2024). THE ROLE OF HYALURON CHONDRO DRUG IN OSTEOARTHRISIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 139-145.
14. Jamshidovich, A. S. (2024). EFFECT OF SIMETHICONE DROP IN FLATULENCE. *Лучшие интеллектуальные исследования*, 14(1), 95-101.
15. Jamshidovich, A. S. (2024). BENEFITS OF BETADINE SOLUTION. *Лучшие интеллектуальные исследования*, 14(1), 116-122.
16. Jamshidovich, A. S. (2024). EFFECT INHALED GLUCOCORTICOIDS IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND BRONCHIAL ASTHMA. *TADQIQOTLAR*, 31(1), 171-180.
17. Jamshidovich, A. S. (2024). USE OF VIGANTOL IN RICKETS. *Лучшие интеллектуальные исследования*, 14(1), 102-108.
18. Jamshidovich, A. S. (2024). THE VITAPROST DRUG RESULTS. *Лучшие интеллектуальные исследования*, 14(1), 109-115.
19. Jamshidovich, A. S. (2024). THE ROLE OF BISEPTOL DRUG IN URINARY TRACT DISEASE. *Лучшие интеллектуальные исследования*, 14(1), 89-94.
20. Jamshidovich, A. S. (2024). PROPERTIES OF THE DRUG DORMIKIND. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 88-92.
21. Jamshidovich, A. S., & Komilovich, E. B. (2024). IMMUNOMODULATORY FUNCTION OF DIBAZOL DRUG. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 83-87.

22. Jamshidovich, A. S., & Komilovich, E. B. (2024). ADVANTAGES OF THE DRUG NERTRAL. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 98-101.
23. Эргашов, Б. К., & Ахмедов, Ш. Ж. (2024). ГИПЕРТОНИЧЕСКАЯ БОЛЕЗНЬ ЭТИОЛОГИЯ. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 59-69.
24. Komilovich, E. B., & Jamshidovich, A. S. (2024). HYPERTENSION, CLASSIFICATION AND PATHOGENESIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 50-58.
25. Komilovich, E. B., & Jamshidovich, A. S. (2024). YURAK ISHEMIYASI. STENOKARDIYADA SHOSHILINCH TIBBIY YORDAM. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 12-20.
26. Komilovich, E. B., & Jamshidovich, A. S. (2024). HYPERTENSION ETIOLOGY. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 32-41.
27. Komilovich, E. B., & Jamshidovich, A. S. (2024). CARDIAC ISCHEMIA. ANGINA NURSING DIAGNOSIS AND CARE. *Journal of new century innovations*, 46(1), 44-52.
28. Jamshidovich, A. S. (2024). IMPORTANT INDICATIONS OF THE DRUG WOBENZYM. *Journal of new century innovations*, 46(1), 29-32.
29. Jamshidovich, A. S. (2024). THE RESULTS OF THE EFFECT OF THE DRUG VALIDOL. *Journal of new century innovations*, 46(1), 19-23.
30. Jamshidovich, A. S. (2024). VIFERON USE IN CHILDREN. *Journal of new century innovations*, 46(1), 24-28.
31. Jamshidovich, A. S. (2024). USE OF DUSPATALIN (MEBEVERINE HYDROCHLORIDE) IN GASTROINTESTINAL DISEASES. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 93-97.
32. Jamshidovich, A. S. (2024). ЭФФЕКТЫ СИРОПА ДЕПАКИНА (ВАЛЬПРОЕВАЯ КИСЛОТА). *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 148-152.
33. Jamshidovich, A. S., & Komilovich, E. B. (2024). THE IMPORTANCE OF THE DRUG ALLOCHOL FOR CHRONIC CHOLECYSTITIS. *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 133-137.
34. Jamshidovich, A. S., & Komilovich, E. B. (2024). ВАЖНЫЕ СВОЙСТВА ПРЕПАРАТА ДЕ-НОЛ (субцитрат висмута). *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 143-147.
35. Jamshidovich, A. S., & Komilovich, E. B. (2024). SPECIAL FEATURES OF BUDECTON DRUG. *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 138-142.

36. Gafurovna, A. N., Xalimovich, M. N., & Komilovich, E. B. Z. (2023). KLIMAKTERIK YOSHDAGI AYOLLARDA ARTERIAL GIPERTENZIYANING KECISHI. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 23(6), 26-31.
37. Komilovich, E. B. Z. (2023). Coronary Artery Disease. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 3(12), 81-87.
38. Эргашов, Б. К. (2023). Артериальная Гипертония: Современный Взгляд На Проблему. *Research Journal of Trauma and Disability Studies*, 2(11), 250-261.
39. Эргашов, Б. К., & Мавлонов, Н. Х. (2024). ГИПЕРТОНИЧЕСКАЯ БОЛЕЗНЬ ЛЕЧЕНИЕ. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(7), 243-250.
40. Komilovich, E. B. (2024). HYPERTENSION TREATMENT. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(7), 227-234.
41. Komilovich, E. B. (2024). CORONARY HEART DISEASE. ANGINA EMERGENCY CARE. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(7), 235-242.
42. Эргашов, Б. К. (2024). ГИПЕРТОНИЧЕСКАЯ БОЛЕЗНЬ ДИАГНОСТИКА. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 70-78.
43. Эргашов, Б. К. (2024). ИШЕМИЧЕСКАЯ БОЛЕЗНЬ СЕРДЦА. СТЕНОКАРДИЯ ПРОФИЛАКТИКА. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 21-31.
44. Komilovich, E. B. (2024). YURAK ISHEMIK KASALLIGI. STENOKARDIYANI DAVOLASHNING ZAMONAVIY TAMOUILLARI. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 3-11.
45. Komilovich, E. B. (2024). HYPERTENSION DIAGNOSTICS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 42-49.
46. Komilovich, E. B., & Xalimovich, M. N. (2024). YURAK ISHEMIYASIDA HAMSHIRALIK DIAGNOSTIKASI VA PARVARISHI. *Journal of new century innovations*, 46(1), 79-85.
47. Эргашов, Б. К., & Мавлонов, Н. Х. (2024). ЗАВИСИМОСТИ В КЛИНИКЕ И ДИАГНОСТИКЕ ИШЕМИЧЕСКОЙ БОЛЕЗНИ СЕРДЦА И АРТЕРИАЛЬНОЙ ГИПЕРТОНИИ. *Journal of new century innovations*, 46(1), 53-60.
48. Komilovich, E. B., & Khalimovich, M. N. (2024). CARDIAC ISCHEMIA. ANGINA CLINICAL FORMS AND DIAGNOSIS. *Journal of new century innovations*, 46(1), 70-78.

49. Komilovich, E. B. (2024). CORONARY HEART DISEASE. ANGINA TREATMENT. *Journal of new century innovations*, 46(1), 95-104.
50. Komilovich, E. B., & Khalimovich, M. N. (2024). NURSING CARE FOR CORONARY ARTERY DISEASE, ANGINA PECTORIS. *Journal of new century innovations*, 46(1), 86-94.
51. Komilovich, E. B., & Khalimovich, M. N. (2024). DEPENDENCIES IN THE CLINIC AND DIAGNOSIS OF CORONARY HEART DISEASE AND ARTERIAL HYPERTENSION. *Journal of new century innovations*, 46(1), 61-69.
52. Ачилов Шохрух Шавкиддин угли. (2024). ХИРУРГИЧЕСКИЕ МЕТОДЫ ЛЕЧЕНИЯ АНЕВРИЗМЫ БРЮШНОЙ АОРТЫ . *TADQIQOTLAR*, 30(3), 120–126.
53. Ачилов Шохрух Шавкиддин угли (2023). ОСЛОЖНЕНИЯ ПОСЛЕ КОВИДА НА СОСУДАХ НИЖНИХ КОНЕЧНОСТЕЙ. *CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES* Volume: 04 Issue: 06 Oct-Nov 2023ISSN:2660-4159, 400-403.
54. Ачилов Шохрух Шавкиддин угли (2023). НАЛОЖЕНИЕ ШИВОВ ПРИ ГНОЙНЫХ ПРОЦЕССАХ НА ТКАНИ. *CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES* Volume: 04 Issue: 06 Oct-Nov 2023ISSN:2660-4159, 292-297.
55. Irgashev, I. (2024). COVID-19 INFEKSIYSINI YUQTIRGAN KASALXONADAN TASHQARI PNEVMONIYA BILAN KASALLANGAN BEMORLARDA DROPERIDOL NEYROLEPTIK VOSITASINI QO'LLANILISHI VA UNING DAVO SAMARADORLIGIGA TA'SIRI. *Центральноазиатский журнал образования и инноваций*, 3(1), 12-18.
56. Irgashev, I. E. (2022). New Principles of Anticoagulant Therapy in Patients with Covid-19. *Research Journal of Trauma and Disability Studies*, 1(12), 15-19.
57. Irgashev, I. E. (2023). RESPIRATORY DISTRESS SYNDROME. *Horizon: Journal of Humanity and Artificial Intelligence*, 2 (5), 587–589.
58. Irgashev, I. E. (2023). Pathological Physiology of Heart Failure. *American Journal of Pediatric Medicine and Health Sciences* (2993-2149), 1(8), 378-383.
59. Irgashev, I. E., & Farmonov, X. A. (2021). Specificity of resuscitation and rehabilitation procedures in patients with covid-19. *Central Asian Journal of Medical and Natural Science*, 2(1), 11-14.

EBSHTEYN ANOMALIYASINI ERTA TASHXIS QO'YISH VA TEKSHIRUV USULLARI

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Annotatsiya: Ebshteyn anomaliyasi etiologiyasi, patogenezi, klinik kechishini o'rganishning zamonaviy usullari, ebshteyn anomaliyasini erta tashxis qo'yishning zamonaviy usullarini ishlab chiqish, ebshteyn anomaliyasi tekshirish usullaridagi aniqlik darajasini oshirish.

Kalit so'zlar: uch tabaqali qopqoq, Fibroz halqa, bo'lmachalararo to'siq, baraban tayoqchasi, zamonaviy davo, zamonaviy tekshirish.

Ebshteyn anomaliyasi uch tabaqali qopqoq displaziyasi va tabaqasining o'ng qorincha bo'shlig'iga siljishi bilan kechadigan tug'ma yurak nuqsoni. U barcha tug'ma yurak nuqsonlari orasida 0,5-1,0 % hollarda uchraydi. Siljigan tabaqa ko'pincha keskin deformatsiyalangan, ingichkalashgan, xordalari qisqargan, so'rg'ichsimon mushaklari gipoplaziyaga uchragan bo'ladi. Aksariyat hollarda, u o'ng qorincha endokardiga yoki qorinchalararo to'siqqa yoyilib tushib, ayrim hollarda, o'ng qorinchaning chiqish qismini to'sib qo'yishi mumkin. Fibroz halqaga uncha o'zgarmagan, uch tabaqali qopqoqning yagona faoliyat ko'rsatayotgan oldingi tabaqasi birikadi. Uning o'lchami ancha katlanishgan, yelkansimon, ayrim hollarda, ozod qismi o'ng qorinchaning chiqish sohasiga birikib, qonning oqib chiqish yo'lagi torayishiga olib keladi. Yurak choqqisiga yo'nalgan tabaqa o'ng qorincha bo'shlig'ini 2 qismga bo'ladi. Yuqorida, siljigan tabaqa ustida joylashgan qismi o'ng bo'lacha bilan qo'shilib katta bo'shliq hosil qiladi. Pastki kichik bo'lagi, siljigan tabaqa ostida joylashgan bo'lib, trabekulyar (yoki choqqi) va chiqish qismi bilan birgalikda o'ng qorincha sifatida faoliyat ko'rsatadi.

O'ng bo'lacha devori qalinlashgan, ayni vaqtda, o'ng qorinchaning yuqori qismi keskin ingichkalashgan, anevrizmatik bo'rtib chiqqan. Uning qalinligi 1-3 mm ni tashkil etadi. O'ng qorinchaning distal bo'shlig'i devori me'yorida yoki qalinlashgan.

Gemodinamikasi. Uch tabaqali qopqoq tabaqasi ko'p siljiganda, o'pkada qon aylanishi o'zgaradi, uning yetishmovchiligi belgilari kuzatiladi va bo'lmachalararo qo'shilish orqali o'ngdan chapga qon otib beriladi. O'ng qorinchaning distal qismi o'pka arteriyasiga kam qon otib berganligi sababli o'pkada qon oqimi kamayadi. Bundan tashqari, bo'lacha sistolasi vaqlida o'ng qorinchaning yuqori bo'lagi diastola davrida bo'ladi, shu sababli pastki distal bo'lakka diastolik qon oqimi kamayadi va bo'lacha sistolasini samaradorligi pasayadi. Uch tabaqali qopqoq tabaqasi siljishi

bilan bir qatorda mavjud bo'lgan kengaygan fibroz halqa ushbu qopqoqni yetishmovchiligiga, kam hollarda stenozi olib keladi. Agar uch tabaqali qopqoq stenozi dislal kameraga qon oqimini qiyinlashtirsa, yetishmovchilik mavjudligi va o'ng qorincha yuqori qismining paradoksal qisqarishi hisobiga qorinchalar sistolasi davrida ko'p miqdordagi venoz qon yana o'ng bo'lmachaga qaytadi. Buning barchasi o'ng bo'lmachani gipertrofiyasiga va dilatatsiyasiga olib keladi. Natijada, kavak venalaridan qon oqimi qiyinlashib, katta qon aylanish doirasida venoz dimlanish rivojlanadi. O'ng bo'lmacha ichida bosim keskin oshadi. Agar bo'lmachalararo to'siq defekti bo'lsa, venoz qon chap bo'lmachaga otib beriladi. Natijada, o'ng bo'lmacha ishini yengillashtirib, tizimli venoz yetishmovchilik rivojlantirishining oldi olinadi. Uch tabaqali qopqoq tabaqasi siljishi va displaziyasida qorinchalararo to'siqda defekt bo'lmasa yoki u kichkina bo'lsa, og'ir gemodinamik o'zgarishlarga olib keladi.

Klinikasi. Ebshteyn anomaliyasi bola hayotining birinchi kunlari va haftasida aniqlanadi. Kasallik yaxshi kechsa, uzoq vaqt unga xos belgilar kuzatilmayishi mumkin. Bemorning asosiy shikoyatlari -yurak sohasida og'riq, hansirash, jismoniy harakatga chidamlilikning pasayishi, yurak urib ketish xurujlari, hushdan ketish kabilar hisoblanadi. Xurujni bartaraf etish uchun izoptin, aymalin, kordaron qo'llaniladi.

Obyektiv ko'rikda bemorlamgls-ZS % da turli darajadagi ko'karish aniqlanadi. Ayrimlarida bo'yin venalarining bo'rtib chiqishi, qo'l va oyoq barmoqlarining "baraban tayoqchasi" shaklida, timoqlarning "soat oynasi" ko'rinishida bo'lishi kuzatiladi. Ularning 1/4 qismida kattalashgan o'ng bo'lmacha va o'ng qorinchaning yuqori bo'lagi hisobiga "yurak bukrisi" shakllanadi, u keskin kengaygan o'ng bo'lagi chap qorinchaning siljishi hisobiga yurak cho'qqi turtkisi beshinchi-oltinchi qovurg'a oralig'ida oldingi qo'ltiq osti chizig'i sohasida bo'ladi. Yurak chegarasi chapga va o'ngga keskin kengayadi.

Auskultatsiyada o'pka arteriyasi ustida II ton sustlashgan va bo'g'iqlashgan, ot dupuri ritmi. uch yoki to'rt tarkibli ritm (I va II tonlami ikkilanishi. qo'shimcha III va IV tonlar paydo bo'lishi hisobiga) eshitiladi. Aksariyat bemorlarda to'sh suyagining chap qirrasida, to'rtinchi-beshinchi qovurg'a oralig'ida yumshoq sistolik shovqin (uch tabaqali qopqoq yetishmovchiligi) aniqlanadi. Diastolik shovqin uch tabaqali qopqoq teshigining stenozi shakllanganligidan dalolat beradi.

Ebshteyn anomaliyasida o'ng qorincha turidagi (hansirash, taxikardiya, gapatomegaliya, bo'yin venalari pulsatsiyasi) yurak yetishmovchiligi kuzatiladi. Bemorda uch tabaqali qopqoq obstruksiyasi. o'pka arteriyasi stenozi, kardiomegaliya rivojlanganda dekompensatsiya belgilari yuzaga keladi va bu yomon oqibatdan dalolat beradi. Ular paydo bo'lgandan keyin bemor o'rta hisobda ikki yil yashaydi.

Laborator-asbohiy tekshirishlar. Ushbu nuqson bilan og'riq bolalar *EKG*sida yurakning elektr o'qi o'ngga siljiydi, Gis tutami o'ng oyoqchasining noto'liq blokadasi aniqlanadi. Barcha tarmoqlarda *QRS* kompleksi past amplitudali, ko'p fazali bo'ladi.

V tipdagi WPW sindromi, bo'lmacha titrashi va hilpillashi, paroksizmal taxikardiya xurujlari kuzatilishi mumkin.

Ko'krak qafasi a'zolari rentgenogrammasida o'pka surati sustlashgan. Aksariyat hollarda, sharsi- mon shakldagi (220-rasm) yoki to'ng'arilgan kosa ko'rinishidagi kardiomegaliya, o'ng atriovaza burchakning kattalashgan bo'lmacha va o'ng qorinchaning tpa bo'lagi hisobiga yuqoriga siljishi, o'ng diafragma chegarasini kesilgan ko'rinishda bo'lishi (o'ng qorinchaning kichrayishi hisobiga) aniqlanadi. Qon-tomir tutami ingichkalashgan. yurakning chap chegarasi o'zgarmagan.

Bir va ikki o'lchamli exokardiografiya, yurak bo'shliqlari kateterizatsiyasi, angiokardiografiya usullari yordamida tashxis tasdiqlanadi.

Davolash. Uch tabaqali qopqoq displaziyasi va uni tabaqasining o'ng qorincha bo'shlig'iga siljishi yaqqol namoyon bo'lganda, bemor erta yurak yetishmovchiligidan olamdan o'tadi. Katla yoshdagi jarrohlik amaliyoti o'tkazilmagan bemorlarda sokin avjlanib boruvchi yurak yetishmovchiligi, ritm buzilishlari o'limga olib keladi. Kapillar tomirlardagi qonning kislorod bilan to'yinganligini 80 % dan past bo'lishi. avj olib borayotgan kardiomegaliya, ritm buzilishlari, dori vositalari bilan davolash samaradorligining kamligi jarrohlik amaliyoti o'tkazishga ko'rsatma hisoblanadi.

Foydalanilgan adabiyotlar:

1. Jamshidovich, A. S. (2024). ВСЕ ЭФФЕКТЫ ПРЕПАРАТА ИМУДОН. *TADQIQOTLAR*, 31(2), 39-43.
2. Jamshidovich, A. S. (2024). SPECIFIC FEATURES OF THE EFFECT OF THE HEPARIN DRUG. *TADQIQOTLAR*, 31(2), 34-38.
3. Jamshidovich, A. S. (2024). USE OF GLUCOCORTICOSTEROIDS IN PEDIATRIC PRACTICE. *TADQIQOTLAR*, 31(2), 29-33.
4. Jamshidovich, A. S. (2024). РОЛЬ ИНТЕЛЛАНОВОГО СИРОПА И ЦИАНОКОБАЛАМИНА В УЛУЧШЕНИИ ПАМЯТИ. *TADQIQOTLAR*, 31(2), 44-48.
5. Jamshidovich, A. S. (2024). TREATMENT OF POLYNEUROPATHY WITH BERLITHION. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 201-209.
6. Jamshidovich, A. S. (2024). USE OF ASCORIL IN BRONCHIAL ASTHMA. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 191-200.
7. Jamshidovich, A. S. (2024). THE IMPORTANCE OF THE DRUG ARTOXAN. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 182-190.
8. Jamshidovich, A. S. (2024). THE ROLE OF RENGALIN IN CHRONIC BRONCHITIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 116-123.
9. Jamshidovich, A. S. (2024). THE ROLE OF ALMAGEL DRUG IN GASTRIC AND DUODENAL WOUND DISEASE. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 173-181.
10. Jamshidovich, A. S. (2024). THE ROLE OF CODELAK BRONCHO SYRUP IN CHILDREN'S PRACTICE. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 109-115.
11. Jamshidovich, A. S. (2024). THE AEVIT DRUG EFFECT. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 124-132.

12. Jamshidovich, A. S. (2024). THE IMPORTANCE OF ALCHEBA DRUG IN POST-STROKE APHASIA. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 132-138.
13. Jamshidovich, A. S. (2024). THE ROLE OF HYALURON CHONDRO DRUG IN OSTEOARTHRISIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 139-145.
14. Jamshidovich, A. S. (2024). EFFECT OF SIMETHICONE DROP IN FLATULENCE. *Лучшие интеллектуальные исследования*, 14(1), 95-101.
15. Jamshidovich, A. S. (2024). BENEFITS OF BETADINE SOLUTION. *Лучшие интеллектуальные исследования*, 14(1), 116-122.
16. Jamshidovich, A. S. (2024). EFFECT INHALED GLUCOCORTICOIDS IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND BRONCHIAL ASTHMA. *TADQIQOTLAR*, 31(1), 171-180.
17. Jamshidovich, A. S. (2024). USE OF VIGANTOL IN RICKETS. *Лучшие интеллектуальные исследования*, 14(1), 102-108.
18. Jamshidovich, A. S. (2024). THE VITAPROST DRUG RESULTS. *Лучшие интеллектуальные исследования*, 14(1), 109-115.
19. Jamshidovich, A. S. (2024). THE ROLE OF BISEPTOL DRUG IN URINARY TRACT DISEASE. *Лучшие интеллектуальные исследования*, 14(1), 89-94.
20. Jamshidovich, A. S. (2024). PROPERTIES OF THE DRUG DORMIKIND. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 88-92.
21. Jamshidovich, A. S., & Komilovich, E. B. (2024). IMMUNOMODULATORY FUNCTION OF DIBAZOL DRUG. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 83-87.
22. Jamshidovich, A. S., & Komilovich, E. B. (2024). ADVANTAGES OF THE DRUG NERTRAL. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 98-101.
23. Эргашов, Б. К., & Ахмедов, Ш. Ж. (2024). ГИПЕРТОНИЧЕСКАЯ БОЛЕЗНЬ ЭТИОЛОГИЯ. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 59-69.
24. Komilovich, E. B., & Jamshidovich, A. S. (2024). HYPERTENSION, CLASSIFICATION AND PATHOGENESIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 50-58.
25. Komilovich, E. B., & Jamshidovich, A. S. (2024). YURAK ISHEMIYASI. STENOKARDIYADA SHOSHILINCH TIBBIY YORDAM. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 12-20.
26. Komilovich, E. B., & Jamshidovich, A. S. (2024). HYPERTENSION ETIOLOGY. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 32-41.
27. Komilovich, E. B., & Jamshidovich, A. S. (2024). CARDIAC ISCHEMIA. ANGINA NURSING DIAGNOSIS AND CARE. *Journal of new century innovations*, 46(1), 44-52.
28. Jamshidovich, A. S. (2024). IMPORTANT INDICATIONS OF THE DRUG WOBENZYM. *Journal of new century innovations*, 46(1), 29-32.
29. Jamshidovich, A. S. (2024). THE RESULTS OF THE EFFECT OF THE DRUG VALIDOL. *Journal of new century innovations*, 46(1), 19-23.
30. Jamshidovich, A. S. (2024). VIFERON USE IN CHILDREN. *Journal of new century innovations*, 46(1), 24-28.

31. Jamshidovich, A. S. (2024). USE OF DUSPATALIN (MEBEVERINE HYDROCHLORIDE) IN GASTROINTESTINAL DISEASES. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 93-97.
32. Jamshidovich, A. S. (2024). ЭФФЕКТЫ СИРОПА ДЕПАКИНА (ВАЛЬПРОЕВАЯ КИСЛОТА). *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 148-152.
33. Jamshidovich, A. S., & Komilovich, E. B. (2024). THE IMPORTANCE OF THE DRUG ALLOCHOL FOR CHRONIC CHOLECYSTITIS. *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 133-137.
34. Jamshidovich, A. S., & Komilovich, E. B. (2024). ВАЖНЫЕ СВОЙСТВА ПРЕПАРАТА ДЕ-НОЛ (субцитрат висмута). *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 143-147.
35. Jamshidovich, A. S., & Komilovich, E. B. (2024). SPECIAL FEATURES OF BUDESTON DRUG. *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 138-142.
36. Gafurovna, A. N., Xalimovich, M. N., & Komilovich, E. B. Z. (2023). KLIMAKTERIK YOSH DAGI AYOLLARDA ARTERIAL GIPERTENZIYANING KECISHI. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 23(6), 26-31.
37. Komilovich, E. B. Z. (2023). Coronary Artery Disease. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 3(12), 81-87.
38. Эргашов, Б. К. (2023). Артериальная Гипертония: Современный Взгляд На Проблему. *Research Journal of Trauma and Disability Studies*, 2(11), 250-261.
39. Эргашов, Б. К., & Мавлонов, Н. Х. (2024). ГИПЕРТОНИЧЕСКАЯ БОЛЕЗНЬ ЛЕЧЕНИЕ. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(7), 243-250.
40. Komilovich, E. B. (2024). HYPERTENSION TREATMENT. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(7), 227-234.
41. Komilovich, E. B. (2024). CORONARY HEART DISEASE. ANGINA EMERGENCY CARE. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(7), 235-242.
42. Эргашов, Б. К. (2024). ГИПЕРТОНИЧЕСКАЯ БОЛЕЗНЬ ДИАГНОСТИКА. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 70-78.
43. Эргашов, Б. К. (2024). ИШЕМИЧЕСКАЯ БОЛЕЗНЬ СЕРДЦА. СТЕНОКАРДИЯ ПРОФИЛАКТИКА. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 21-31.
44. Komilovich, E. B. (2024). YURAK ISHEMIK KASALLIGI. STENOKARDIYANI DAVOLASHNING ZAMONAVIY TAMOUYILLARI. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 3-11.
45. Komilovich, E. B. (2024). HYPERTENSION DIAGNOSTICS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 42-49.
46. Komilovich, E. B., & Xalimovich, M. N. (2024). YURAK ISHEMIYASIDA HAMSHIRALIK DIAGNOSTIKASI VA PARVARISHI. *Journal of new century innovations*, 46(1), 79-85.
47. Эргашов, Б. К., & Мавлонов, Н. Х. (2024). ЗАВИСИМОСТИ В КЛИНИКЕ И ДИАГНОСТИКЕ ИШЕМИЧЕСКОЙ БОЛЕЗНИ СЕРДЦА И АРТЕРИАЛЬНОЙ ГИПЕРТОНИИ. *Journal of new century innovations*, 46(1), 53-60.
48. Komilovich, E. B., & Khalimovich, M. N. (2024). CARDIAC ISCHEMIA. ANGINA CLINICAL FORMS AND DIAGNOSIS. *Journal of new century innovations*, 46(1), 70-78.

49. Komilovich, E. B. (2024). CORONARY HEART DISEASE. ANGINA TREATMENT. *Journal of new century innovations*, 46(1), 95-104.
50. Komilovich, E. B., & Khalimovich, M. N. (2024). NURSING CARE FOR CORONARY ARTERY DISEASE, ANGINA PECTORIS. *Journal of new century innovations*, 46(1), 86-94.
51. Komilovich, E. B., & Khalimovich, M. N. (2024). DEPENDENCIES IN THE CLINIC AND DIAGNOSIS OF CORONARY HEART DISEASE AND ARTERIAL HYPERTENSION. *Journal of new century innovations*, 46(1), 61-69.
52. Ачилов Шохрух Шавкиддин угли. (2024). ХИРУРГИЧЕСКИЕ МЕТОДЫ ЛЕЧЕНИЯ АНЕВРИЗМЫ БРЮШНОЙ АОРТЫ . TADQIQOTLAR, 30(3), 120–126.
53. Ачилов Шохрух Шавкиддин угли (2023). ОСЛОЖНЕНИЯ ПОСЛЕ КОВИДА НА СОСУДАХ НИЖНИХ КОНЕЧНОСТЕЙ. CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES Volume: 04 Issue: 06 Oct-Nov 2023ISSN:2660-4159, 400-403.
54. Ачилов Шохрух Шавкиддин угли (2023). НАЛОЖЕНИЕ ШИВОВ ПРИ ГНОЙНЫХ ПРОЦЕССАХ НА ТКАНИ. CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES Volume: 04 Issue: 06 Oct-Nov 2023ISSN:2660-4159, 292-297.
55. Irgashev, I. (2024). COVID-19 INFEKSIYSINI YUQTIRGAN KASALXONADAN TASHQARI PNEVMONIYA BILAN KASALLANGAN BEMORLARDA DROPERIDOL NEYROLEPTIK VOSITASINI QO'LLANILISHI VA UNING DAVO SAMARADORLIGIGA TA'SIRI. Центральноеазиатский журнал образования и инноваций, 3(1), 12-18.
56. Irgashev, I. E. (2022). New Principles of Anticoagulant Therapy in Patients with Covid-19. *Research Journal of Trauma and Disability Studies*, 1(12), 15-19.
57. Irgashev, I. E. (2023). RESPIRATORY DISTRESS SYNDROME. *Horizon: Journal of Humanity and Artificial Intelligence*, 2 (5), 587–589.
58. Irgashev, I. E. (2023). Pathological Physiology of Heart Failure. *American Journal of Pediatric Medicine and Health Sciences* (2993-2149), 1(8), 378-383.
59. Irgashev, I. E., & Farmonov, X. A. (2021). Specificity of resuscitation and rehabilitation procedures in patients with covid-19. *Central Asian Journal of Medical and Natural Science*, 2(1), 11-14.

EKSSUDATLI PLEVRIT KLINIKASINING O'ZIGA XOS XUSUSIYATLARI

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Annotatsiya

Ekssudatli plevritning boshlang'ich belgilari, klinik belgilar mexanizmlari, klinik belgilarning o'ziga xosligi, intoksikatsiya belgilari, suyuqlik miqdorining plevrit klinikasiga ta'siri.

Kalit so'zlar: Ekssudatli plevrit, fibrinoz, Intoksikatsiya, pleural suyuqlik.

Ekssudatli plevrit. Klinikasi Ekssudatli plevrit ko'p hollarda yuqorida keltirilgan fibrinoz (quruq) plevrit belgilari bilan boshlanadi va keyinchalik kasallikning klinik manzarasi o'zgaradi. Tana harorati febril ko'rsatkichlargacha ko'tarilib, qaltirash, kuchli terlash, kuchayib boruvchi intoksikatsiya belgilari bilan birga kechadi. Aksariyat hollarda, harorat gektik xususiyatga ega bo'ladi.

Intoksikatsiyaning ayrim belgilari (mushaklardagi holsizlik, uyquchanlik, karaxtlik, bosh og'rishi, ishtahaning pasayishi), odatda, o'rta darajada namoyon bo'ladi. Ammo yiringli plevrit va uning empiemasida belgilar sezilarli kuchayadi.

Ekssudat to'planishi va plevra varaqlarining bir- biridan uzoqlashishi natijasida ko'krak qafasidagi o'tkir og'riqlar keskin kamayadi yoki butunlay yo'qoladi. Bunda bemorlar zararlangan tomonda og'irlik sezadilar va «to'liq tiklanmagan» o'pkaga shikoyat qiladilar. Plevra varaqlarining tarqoq yallig'lanishida hatto ko'p miqdordagi ekssudat yig'ilishiga qaramasdan ko'krak qafasida o'tkir og'riqlar saqlanib koladi. Ko'p hollarda auskullatsiyada cshitiladigan plevra ishqalanish shovqini yallig'langan plevra varaqlari birikkan sohasidagi suyuqlik sathida eshitiladi. Ekssudat yig'ilish darajasiga qarab bemorda avj olib boruvchi nafas yetishmovchiligi belgilari va traxeya hamda ko'ks oraliq'ining siljishi kuzatiladi. Kam jismoniy zo'riqishda va tinch holatda ham kuzatiluvchi hansirash paydo bo'ladi. Ekssudatning miqdori ko'p bo'lmaganda hansirash taxipnoe xususiyatga ega bo'ladi. Suyuqlik ko'p miqdordayig'ilganda inspirator hansirash kuzatiladi va u nafas mushaklari ishining kuchayish belgilari bilan birga kechadi.

Ekssudatli plevrit bilan og'rigan ko'p bemorlarning plevra varaqlari zararlanishi va traxeya siljishi bilan izohlanuvchi reflektor quruq og'riqli yo'tal bezovta kiladi.

Bcmomi ko'zdan kechirganda o'ziga xos majburiy holat - ular bir oz egilgan yoki yarim o'tirgan holatni egallashga, ba'zan sog'lom tomonga yotishga harakat qiladilar. Bunday holat qon oksigenatsiyasining yaxshilanishiga va hansirashning kamayishiga olib kcladi (decubitus lateralis holati). Nafas yctishmovchiligining tez. avj olishi diffuz

“kulrang” sianoz paydo bo’lishi bilan birga kechadi. Ko‘ks oralig‘ining sezilarli siljishida yoki yurakning yondosh kasalliklarida sianoz aralash xarakterga ega bo‘ladi.

Zararlangan tomonda ko‘krak qafasi hajmining oshishi va uning nafas olishda ortda qolishi (Guvcr simptomi) kuzatiladi. Qovurg‘alararo oraliqlar tckislangan va nafas olganda tortilish aniqlanmaydi (Lilcn simptomi). Zararlangan tomonda teri shishinqiragan va sog‘ tomonga nisbatan burmalaming ko‘pligi (Vintrix simptomi) ko‘zga tashlanadi. Zararlangan tomonda suyuqlik sohasida ovoz dirillashi keskin pasayadi.

Agar plevradagi suyuqlik miqdori 300-400 ml dan oshsa, oddiy perkussiya yordamida uni aniqlash mumkin. Shu sohada perkutor tovush sezilarli bo‘g‘iqlashgan, ekssudat katlami qalin bo‘lganda - butunlay bo‘g‘iq tovush eshitiladi. Kamroq miqdordagi ekssudatda bo‘g‘iq tovush Ellis-Damuazochizig‘iyuqorichegarasidaaniqlanadi. Bu chegaraning eng yuqori nuqtasi orqa qo‘ltiq osti yoki kurak chizig‘idajoylashadi. Ushbu ycrdan u cgri chiziq bo‘ylab pastga, orqada umurtqa pog‘onasi bilan kesishadi, oldinda V qovurg‘a sathida o‘rta umrov chizig‘iga yetadi.

Ekssudatli plevritda suyuqlikning eng yuqori salhi ko‘krak qafasining orqa-yon bo‘liinlarida joylashadi. Shu sababli plevradagi suyuqlik hajmini baholash maqsadida tovush to‘mtoqlashish chegarasini bu sohada sinchkovlik bilan tekshirish lozim. Old tomondan o‘rta-o‘mrov chizig‘i bo‘ylab to‘mtoqlik, orqa tomondan yuqori chegarasi kurakningo‘rtasiga yetganda aniqlanadi va bu 2-3 I plevral suyuqlik miqdoriga to‘gri kcladi.

Ekssudat yuqori chegarasi sathining o‘pkaning turli qismlarida farqlanishi, birinchi navbalda, siljishning yo‘nalishi va o‘pkaning pastdan yuqoriga) va oldindan orqaga kompressiyasi, ya‘ni o‘pka ildizi tomon yo‘nalishi bo‘ylab izohlanadi. Bunday holatda o‘pkaning orqa-yon bo‘limlari kamroq siljiydi. Shuning uchun bu sohada suyuqlik eng yuqori sathga yetadi. Ekssudat miqdori 3-4 I dan oshganda, bo‘g‘iqlik yuqori chegarasi dcyarli gorizontall bo‘ladi. Orqada to‘mtoqlikning yuqori chegarasida qisilgan o‘pka sohasida kompression atelektaz zonasi joylashadi. Bu Garland uchburchagini hosil qilib, umurtqa pog‘onasi, Ellis-Damuazo chizig‘i va uning yuqori nuqtasidan kesib o‘tuvchi gorizontall chiziqdan tashkil topgan. Perkussiyada bu sohada bo‘g‘iqlashgan timpanik tovush eshitiladi. Agar plevra bo‘shlig‘ida ko‘p miqdorda ekssudat to‘plansa (4 I dan oshiq), perkussiyada bo‘g‘iq tovush aniqlanadi. Bu ko‘ks oralig‘ining sog‘ tomonga siljigan proyeksiyasiga (Rauxfus- Grokko uchburchagi) mos kcladi. Ushbu uchburchak umurtqa pog‘onasi va Ellis-Damuazo chizig‘i davomi bilan chegaralangan. Traube bo‘shlig‘i yuzasida timpanik tovush yo‘qolishi chap tomonlama suyuqlik to‘planishining erta fizikal belgisi hisoblanadi. Bo‘g‘iq perkutor tovush sohasida auskultatsiyada kuchsiz nafas sezilarli susaygan yoki umuman eshitilmaydi. Garland uchburchagida. ya'ni orqa ko‘krak devori kompression atelektaz proyeksiyasi sohasida kuchsiz bronxial nafas, ba‘zan krcpilatsiya aniqlanadi. Ba‘zi holatlarda

suyuqlikning yuqori chegarasida plevra ishqalanish shovqini eshitilib, bu yallig'lanishning uning varaqlariga tarqalganligini bildiradi.

O'ng tomonlama parapnevmonik plevritda ko'ks oralig'ichapgasiljiydi. Bundacho'qqiturtkisi oldingi aksillyar chiziq sathida joylashadi. Ushbu hollarda sezilarli taxikardiya-birdaqiqada 120-140 marta. akrosianoz va yurak yetishmovchiligining boshqa belgilari yuzaga keladi. Chap tomonlama ekssudatli plevrit yurakning nisbiy bo'g'iqlik chegarasining o'ng tomonga siljishi bilan birga kechadi. Ko'ks oralig'i sezilarli siljiganda pastki kavak venaning diafragma o'tish joyida egilish yuzaga kelib, yurakka venoz qon qaytishining kuchli chegaralanishi, yurak zarb hajmining pasayishi va turg'un arterial gipotcnziya rivojlanadi.

Ekssudatning qayta so'rilishi, odatda, kasallik boshlanganidan 1-1,5 oydan so'ng kuzatiladi. Sog'aygandan keyin yallig'langan soha varaqlarida sezilarli qalinlashish saqlanib qoladi va ba'zan plevral bitishinalar hosil bo'ladi.

Laborator-ashobiy tekshirishlar. Qon tahlili. Infeksiya la'sirida plevrada yallig'lanish kuzalilganda qonning umumiy tahlilida yallig'lanish sindromining spetsifik bo'lmagan quyidagi belgilari aniqlanadi: leykotsitlar formulasining chapga siljishi, neytrofilli leykotsitoz va ECHT oshishi. Og'ir hollarda toksik donador neytrofillar, shuningdek, leykemoid reaksiya belgilari aniqlanadi. Ko'pincha sezilarli normoxrom kamqonlik rivojlanadi.

Qonning biokimyoviy tahliliga xos bo'lgan o'zgarishlarga sezilarli disproteinemiya, albumin miqdorining, α_1 va α_2 globulinlarning oshishi kiradi. «Yallig'lanishning o'tkir fazasi» oqsillarining

tarkibi - C-reaktiv protein, gaptoglobin, seromukoid, sial kislota miqdori oshadi.

Infeksiyaga bog'liq bo'lmagan asseptik plevra suyuqligida qon tahlilidagi o'zgarishlar plevrit bilan asoratlangan asosiy kasallikka xos bo'ladi.

Renlgenyordamida tekshirish. Ushbu usul plevritni tashxislashda hal qiluvchi ahamiyatga ega. Quruq plevritning rentgen belgilari quyidagilar hisoblanadi:

-zararlangan tomonda diafragma gumbazining yuqori turishi;

-chuqur nafas olganda o'pka paslki chegarasi va diafragma gumbazi harakatchanligini chegaralanishi;

-diafragma ustida va qovurg'a - diafragma sinusi sohasida o'pka maydoni tiniqligining pasayishi .

Ekssudatli plevritda suyuqlik to'planishining certa belgilariga suyuqlik egilgan yuqori chegarasi bilan birga o'tkir roentgen qovurg'a diafragma burchagining tekislanishi kiradi . Plevra bo'shlig'ida sathining ekssudat hajmining ortib borishiga ko'ra rentgenogrammada o'pka tashqi burchagining va diafragmaning yuqoriga ko'tarilishi hamda bir xil qorayish ko'rinadi. Qorayishning yuqori chegarasi ko'pincha yuqoridan pastga va tashqaridan ichkariga qarab qiyshiq joylashadi . Tana holati o'zgarganda suyuqlik joylashishi bilan bog'liq holda qorayish va uning yuqori

chegarasi o'z shaklini o'zgartiradi. Plevra bo'shlig'idagi mavjud ko'p miqdordagi ekssudat suyuqligi o'pkaning pastki yon bo'lagida sezilarli to'planganda tashqi yuqori va ichki pastki egri chiziqli uchburchak soya hosil qiladi. Bunda diafragma gumbazi tekislanadi, ko'ks oralig'i esa sog'lom tomonga siljiydi .

Plevrada kam miqdorda suyuqlik bo'lganda (100-150 ml atrofida) uni aniqlashda latcrografiya, ya'ni bemorni zararlangan tomonga yonboshlatib yotqizib o'tkaziladigan renlgen tekshirish qo'llaniladi. Plevra bo'shlig'ida chegaralanmagan qobiqsiz erkin suyuqlik bo'lsa, devor oldida tor tasmasimon soya ko'rinadi. Qobiqli suyuqlik plevra bitishmalari negizida rivojlanganda. uning soyasining chegarasi aniq va yuqoriga bo'rtgan bo'ladi. Bo'laklararo plevritlarda chegaralangan soya uzunchoq shaklni egallab. bo'laklararo yoriqning chegarasiga to'g'ri keladi .

Plevra suyuqligini aniq- lashning sezgir usullaridan biri ko'krak qafasi a'zolarining UTT va kompyuter tomografiyasidir. o'ng tomonlama punksiyadan oldin va keyin o'tkaz.ish maqsadga muvofiq. Suyuqlikni tekshirish patologik jarayon (zotiljam, sil, o'sma va boshqalar) sababini aniqlash imkonini beradi.

Plevra suyuqligini tekshirish plevrit sababini tashxislash uchun muhim ahamiyatga ega. Tekshirish plevra suyuqligi turini (ekssudat, transsudat), undagi patologik jarayonni (yiring- yallig'lanish, aseptik, o'sina, sil va boshqalar), qo'zg'atuvchisini ajratishga va antibiotiklarga sezuvchanligini aniqlashga imkon beradi. Ko'p miqdorda suyuqlik to'plangan bemorlarda va sezilarli nafas yetishmovchiligida davolash maqsadida plevra bo'shlig'idan suyuqlikni tez chiqarib tashlash lozim.

Foydalanilgan adabiyotlar:

1. Jamshidovich, A. S. (2024). ВСЕ ЭФФЕКТЫ ПРЕПАРАТА ИМУДОН. *TADQIQOTLAR*, 31(2), 39-43.
2. Jamshidovich, A. S. (2024). SPECIFIC FEATURES OF THE EFFECT OF THE HEPARIN DRUG. *TADQIQOTLAR*, 31(2), 34-38.
3. Jamshidovich, A. S. (2024). USE OF GLUCOCORTICOSTEROIDS IN PEDIATRIC PRACTICE. *TADQIQOTLAR*, 31(2), 29-33.
4. Jamshidovich, A. S. (2024). РОЛЬ ИНТЕЛЛАНОВОГО СИРОПА И ЦИАНОКОБАЛАМИНА В УЛУЧШЕНИИ ПАМЯТИ. *TADQIQOTLAR*, 31(2), 44-48.
5. Jamshidovich, A. S. (2024). TREATMENT OF POLYNEUROPATHY WITH BERLITHION. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 201-209.
6. Jamshidovich, A. S. (2024). USE OF ASCORIL IN BRONCHIAL ASTHMA. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 191-200.
7. Jamshidovich, A. S. (2024). THE IMPORTANCE OF THE DRUG ARTOXAN. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 182-190.

8. Jamshidovich, A. S. (2024). THE ROLE OF RENGALIN IN CHRONIC BRONCHITIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 116-123.
9. Jamshidovich, A. S. (2024). THE ROLE OF ALMAGEL DRUG IN GASTRIC AND DUODENAL WOUND DISEASE. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 173-181.
10. Jamshidovich, A. S. (2024). THE ROLE OF CODELAK BRONCHO SYRUP IN CHILDREN'S PRACTICE. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 109-115.
11. Jamshidovich, A. S. (2024). THE AEVIT DRUG EFFECT. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 124-132.
12. Jamshidovich, A. S. (2024). THE IMPORTANCE OF ALCHEBA DRUG IN POST-STROKE APHASIA. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 132-138.
13. Jamshidovich, A. S. (2024). THE ROLE OF HYALURON CHONDRON DRUG IN OSTEOARTHRITIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 139-145.
14. Jamshidovich, A. S. (2024). EFFECT OF SIMETHICONE DROP IN FLATULENCE. *Лучшие интеллектуальные исследования*, 14(1), 95-101.
15. Jamshidovich, A. S. (2024). BENEFITS OF BETADINE SOLUTION. *Лучшие интеллектуальные исследования*, 14(1), 116-122.
16. Jamshidovich, A. S. (2024). EFFECT INHALED GLUCOCORTICOSTEROIDS IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND BRONCHIAL ASTHMA. *TADQIQOTLAR*, 31(1), 171-180.
17. Jamshidovich, A. S. (2024). USE OF VIGANTOL IN RICKETS. *Лучшие интеллектуальные исследования*, 14(1), 102-108.
18. Jamshidovich, A. S. (2024). THE VITAPROST DRUG RESULTS. *Лучшие интеллектуальные исследования*, 14(1), 109-115.
19. Jamshidovich, A. S. (2024). THE ROLE OF BIASEPTOL DRUG IN URINARY TRACT DISEASE. *Лучшие интеллектуальные исследования*, 14(1), 89-94.
20. Jamshidovich, A. S. (2024). PROPERTIES OF THE DRUG DORMIKIND. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 88-92.
21. Jamshidovich, A. S., & Komilovich, E. B. (2024). IMMUNOMODULATORY FUNCTION OF DIBAZOL DRUG. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 83-87.
22. Jamshidovich, A. S., & Komilovich, E. B. (2024). ADVANTAGES OF THE DRUG NERTRAL. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 98-101.

23. Эргашов, Б. К., & Ахмедов, Ш. Ж. (2024). ГИПЕРТОНИЧЕСКАЯ БОЛЕЗНЬ ЭТИОЛОГИЯ. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 59-69.
24. Komilovich, E. B., & Jamshidovich, A. S. (2024). HYPERTENSION, CLASSIFICATION AND PATHOGENESIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 50-58.
25. Komilovich, E. B., & Jamshidovich, A. S. (2024). YURAK ISHEMIYASI. STENOKARDIYADA SHOSHILINCH TIBBIY YORDAM. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 12-20.
26. Komilovich, E. B., & Jamshidovich, A. S. (2024). HYPERTENSION ETIOLOGY. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 32-41.
27. Komilovich, E. B., & Jamshidovich, A. S. (2024). CARDIAC ISCHEMIA. ANGINA NURSING DIAGNOSIS AND CARE. *Journal of new century innovations*, 46(1), 44-52.
28. Jamshidovich, A. S. (2024). IMPORTANT INDICATIONS OF THE DRUG WOBENZYM. *Journal of new century innovations*, 46(1), 29-32.
29. Jamshidovich, A. S. (2024). THE RESULTS OF THE EFFECT OF THE DRUG VALIDOL. *Journal of new century innovations*, 46(1), 19-23.
30. Jamshidovich, A. S. (2024). VIFERON USE IN CHILDREN. *Journal of new century innovations*, 46(1), 24-28.
31. Jamshidovich, A. S. (2024). USE OF DUSPATALIN (MEBEVERINE HYDROCHLORIDE) IN GASTROINTESTINAL DISEASES. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 93-97.
32. Jamshidovich, A. S. (2024). ЭФФЕКТЫ СИРОПА ДЕПАКИНА (ВАЛЬПРОЕВАЯ КИСЛОТА). *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 148-152.
33. Jamshidovich, A. S., & Komilovich, E. B. (2024). THE IMPORTANCE OF THE DRUG ALLOCHOL FOR CHRONIC CHOLECYSTITIS. *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 133-137.
34. Jamshidovich, A. S., & Komilovich, E. B. (2024). ВАЖНЫЕ СВОЙСТВА ПРЕПАРАТА ДЕ-НОЛ (субцитрат висмута). *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 143-147.
35. Jamshidovich, A. S., & Komilovich, E. B. (2024). SPECIAL FEATURES OF BUDESTON DRUG. *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 138-142.
36. Gafurovna, A. N., Xalimovich, M. N., & Komilovich, E. B. Z. (2023). KLIMAKTERIK YOSHDAGI AYOLLARDA ARTERIAL GIPERTENZIYANING KESHISHI. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 23(6), 26-31.

37. Komilovich, E. B. Z. (2023). Coronary Artery Disease. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 3(12), 81-87.
38. Эргашов, Б. К. (2023). Артериальная Гипертония: Современный Взгляд На Проблему. *Research Journal of Trauma and Disability Studies*, 2(11), 250-261.
39. Эргашов, Б. К., & Мавлонов, Н. Х. (2024). ГИПЕРТОНИЧЕСКАЯ БОЛЕЗНЬ ЛЕЧЕНИЕ. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(7), 243-250.
40. Komilovich, E. B. (2024). HYPERTENSION TREATMENT. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(7), 227-234.
41. Komilovich, E. B. (2024). CORONARY HEART DISEASE. ANGINA EMERGENCY CARE. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(7), 235-242.
42. Эргашов, Б. К. (2024). ГИПЕРТОНИЧЕСКАЯ БОЛЕЗНЬ ДИАГНОСТИКА. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 70-78.
43. Эргашов, Б. К. (2024). ИШЕМИЧЕСКАЯ БОЛЕЗНЬ СЕРДЦА. СТЕНОКАРДИЯ ПРОФИЛАКТИКА. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 21-31.
44. Komilovich, E. B. (2024). YURAK ISHEMIK KASALLIGI. STENOKARDIYANI DAVOLASHNING ZAMONAVIY TAMOYILLARI. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 3-11.
45. Komilovich, E. B. (2024). HYPERTENSION DIAGNOSTICS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 42-49.
46. Komilovich, E. B., & Xalimovich, M. N. (2024). YURAK ISHEMIYASIDA HAMSHIRALIK DIAGNOSTIKASI VA PARVARISHI. *Journal of new century innovations*, 46(1), 79-85.
47. Эргашов, Б. К., & Мавлонов, Н. Х. (2024). ЗАВИСИМОСТИ В КЛИНИКЕ И ДИАГНОСТИКЕ ИШЕМИЧЕСКОЙ БОЛЕЗНИ СЕРДЦА И АРТЕРИАЛЬНОЙ ГИПЕРТОНИИ. *Journal of new century innovations*, 46(1), 53-60.
48. Komilovich, E. B., & Khalimovich, M. N. (2024). CARDIAC ISCHEMIA. ANGINA CLINICAL FORMS AND DIAGNOSIS. *Journal of new century innovations*, 46(1), 70-78.
49. Komilovich, E. B. (2024). CORONARY HEART DISEASE. ANGINA TREATMENT. *Journal of new century innovations*, 46(1), 95-104.
50. Komilovich, E. B., & Khalimovich, M. N. (2024). NURSING CARE FOR CORONARY ARTERY DISEASE, ANGINA PECTORIS. *Journal of new century innovations*, 46(1), 86-94.

51. Komilovich, E. B., & Khalimovich, M. N. (2024). DEPENDENCIES IN THE CLINIC AND DIAGNOSIS OF CORONARY HEART DISEASE AND ARTERIAL HYPERTENSION. *Journal of new century innovations*, 46(1), 61-69.
52. Ачиллов Шохрух Шавкиддин угли. (2024). ХИРУРГИЧЕСКИЕ МЕТОДЫ ЛЕЧЕНИЯ АНЕВРИЗМЫ БРЮШНОЙ АОРТЫ . *TADQIQOTLAR*, 30(3), 120–126.
53. Ачиллов Шохрух Шавкиддин угли (2023). ОСЛОЖНЕНИЯ ПОСЛЕ КОВИДА НА СОСУДАХ НИЖНИХ КОНЕЧНОСТЕЙ. *CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES* Volume: 04 Issue: 06 Oct-Nov 2023ISSN:2660-4159, 400-403.
54. Ачиллов Шохрух Шавкиддин угли (2023). НАЛОЖЕНИЕ ШИВОВ ПРИ ГНОЙНЫХ ПРОЦЕССАХ НА ТКАНИ. *CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES* Volume: 04 Issue: 06 Oct-Nov 2023ISSN:2660-4159, 292-297.
55. Irgashev, I. (2024). COVID-19 INFEKSIYSINI YUQTIRGAN KASALXONADAN TASHQARI PNEVMONIYA BILAN KASALLANGAN BEMORLARDA DROPERIDOL NEYROLEPTIK VOSITASINI QO'LLANILISHI VA UNING DAVO SAMARADORLIGIGA TA'SIRI. *Центральноазиатский журнал образования и инноваций*, 3(1), 12-18.
56. Irgashev, I. E. (2022). New Principles of Anticoagulant Therapy in Patients with Covid-19. *Research Journal of Trauma and Disability Studies*, 1(12), 15-19.
57. Irgashev, I. E. (2023). RESPIRATORY DISTRESS SYNDROME. *Horizon: Journal of Humanity and Artificial Intelligence*, 2 (5), 587–589.
58. Irgashev, I. E. (2023). Pathological Physiology of Heart Failure. *American Journal of Pediatric Medicine and Health Sciences* (2993-2149), 1(8), 378-383.
59. Irgashev, I. E., & Farmonov, X. A. (2021). Specificity of resuscitation and rehabilitation procedures in patients with covid-19. *Central Asian Journal of Medical and Natural Science*, 2(1), 11-14.

GLOMERULONEFRIT KASALLIGIGA ERTA TASHXIS QO'YISHNING ZAMONAVIY USULLARI

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Annotatsiya

Glomerulonefrit kasalligi etiologiyasi, kasallikning rivojlanishi, kasallikning oqibatlarini, kasallikka erta tashxis qo'yishning zamonaviy usullari, kasallikning davo choralarini ishlab chiqish

Kalit so'zlar: Diffuz Glomerulonefrit, infeksiya, progressirlanuvchi, nefritogen, streptokokk,

Buyrak kasalliklarining eng ko'p uchraydigan xillaridan biri - asosan ko'ptokcha tomirlarining shikastlanishi bilan kechadigan allergik autoimmun yallig'lanish kasalligi hisoblanadi. Uning asosiy klinik tiplari o'tkir, surunkali va juda tez progressirlanuvchi glomerulonefritlardir.

Diffuz Glomerulonefrit etiologiyasida infeksiya, toksik moddalar, immun mexanizmlarning ishga tushishiga olib keladigan ayrim ekzogen allergenlar asosiy rol o'ynaydi. Ma'lum bo'lgan etiologik omillarning rolini o'tkir Diffuz Glomerulonefrit 80-90% kasallarda, surunkali va tez progressirlanuvchi xillari 5-10% kasallarda aniqlash mumkin. Qolgan kasallarda Diffuz Glomerulonefrit sababi aniqlanmasdan qoladi. Diffuz Glomerulonefrit rivojlanishida A gemolitik streptokokk (4,12 tiplari) ahamiyatga ega va u spetsifik «nefritogen» shtamm deb hisoblanadi.

Ko'p hollarda Diffuz Glomerulonefrit bevosita immun mexanizmlar ishtirokida rivojlanadi. Streptokokkdan keyingi o'tkir Diffuz Glomerulonefrit bu - angina yoki faringitdan 10 -12 kun so'ng antitanalar hosil bo'lishi bilan bog'liq, ko'pincha shiddatli kechuvchi allergik nefritning rivojlanishidir.

Surunkali Diffuz Glomerulonefrit esa ko'pincha antigen va antitanalar ushlovchi immunkomplekslarning asta-sekinlik bilan hosil bo'lishi va ularning ko'ptokchalar yuzasiga o'tirishi va yetarli darajada eliminatsiya qilinmasligi bilan bog'liq. Tez avj oluvchi Diffuz Glomerulonefrit va ayrim surunkali Diffuz Glomerulonefrit da kasallik ko'ptokchalar bazal membranasiga qarshi antitanalar hosil bo'lishidan iborat.

Immun komplekslar hosil bo'lishi mexanizmini quyidagicha tasavvur qilish mumkin: streptokokk toksinlari buyrak to'qimasiga (ko'ptokchalar bazal membransi ehtimoldan xoli emas) ta'sir ko'rsatadi, natijada o'zgargan oqsil hosil bo'ladi va u antigen sifatida xizmat qiladi, unga nisbatan buyrakka qarshi ta'sir qiladigan antitanalar ishlab chiqariladi. Hosil bo'lgan antitanalar (IgG, IgM) qonda antigenlar bilan o'zaro

ta'sirga kirishadi, keyinchalik immun komplekslar shaklida (antigen - antitana - komplement) ko'tokchalarning bazal membranasiga o'tiradi va immun yallig'lanish rivojlanishini chaqiradi. Shunday qilib, diffuz glomerulonefritlar immunkompleks genezli kasallik deb hisoblanadi.

Diffuz glomerulonefrit patogenezida organizmning sovuqotishi muhim rol o'ynaydi.

Ma'lumki, u ko'pincha sovuq ob-havoda (kuz va qish) va ayniqsa, sovuq nam iqlimda tez rivojlanadi. Shamollash buyrakning qon bilan ta'minlanishi va trofikasining reflektor buzilishi orqali organizm reaktivligi va immunologik reaksiyalar kechishini o'zgartirishi mumkin.

Shuning uchun ham u ilgari sensibilizatsiyalangan organizmda hal qiluvchi omil rolini o'ynashi mumkin. Glomerulonefritning infeksiyon etiologiyasidan tashqari uning zardob va vaksina tabiatli bo'lishi ham nazarda tutiladi.

Klinik nuqtai nazaridan Diffuz Glomerulonefritda

*proteinuriya,

*gematuriya,

*shish,

*arterial

*gipertenziya,

buyrak funksiyasining buzilishi bilan namoyon bo'ladi.

«O'tkir glomerulonefrit» tashxisini qo'yish anamnez (yaqinda boshdan o'tkaziladigan infeksiyon kasalliklar), klinik tasvir (shishlar, arterial gipertoniya) va laboratoriya ma'lumotlariga asoslanib amalga oshiriladi. Tahlil natijalari quyidagi o'zgarishlar bilan tavsiflanadi:

- Mikro- yoki makrogematuriya. Makrogematuriyada siydik qora, to'q jigarrang yoki «go'sht yuvindisi» rangini oladi. Mikrogematuriyada siydik rangining o'zgarishi kuzatilmaydi. Kasallikning dastlabki kunlarida siydik tarkibida asosan yangi eritrotsitlar aniqlanadi, keyinchalik esa suvsizlanganlari.

- 2-3 hafta davomida o'rtacha albuminuriya (odatda 3-6% oralig'ida) qayd qilinadi;

- Siydik cho'kindisi mikroskopiyasi natijasiga ko'ra mikrogematuriyada donsion va gialin silindrlar, makrogematuriyada esa eritrositar bo'ladi;

- Nikturiya, Zimnitskiy porbasi o'tkazilganida diurezning pasayishi. Buyraklar konsentratsion qobiliyatining saqlanib qolishi siydikning yuqori nisbiy zichligi bilan tasdiqlanadi;

- Endogen kreatinin klirensini o'rganish natijalariga ko'ra buyraklar filtratsiya qobiliyatining pasayishi;

Umumiy qon tahlili natijalariga ko'ra o'tkir glomerulonefritda leykositoz va ECHT o'sishi aniqlanadi. Biokimyoviy qon tahlili mochevina, xolesterin va kreatinin

miqdorining yuqoriligi, AST va ASL-O titrining oshganligini tasdiqlaydi. O'tkir azotemiya xarakterlidir (qoldiq azot miqdorining ortishi).

Buyraklar ultratovush tekshiruv va buyrak tomirlarining ultratovushli dopplerografiyasi o'tkaziladi. Agar laboratoriya tadqiqotlari va UTT natijalari shubhali bo'lsa, glomerulonefrit tashxisini tasdiqlash uchun buyrak biopsiyasi olinadi va olingan material morfologik tadqiq qilinadi.

O'tkir glomerulonefritni davolash kasalxonada amalga oshiriladi. №7 parhezi, yotoq tartibi buyuriladi. Bemorlarga antibakterial terapiya (ampitsillin + oksatsillin, penitsillin, eritromitsin), immunitetni to'g'rilash uchun gormonal bo'lmagan (siklofosamid, azatioprin) va gormonal (prednizolon) preparatlar buyuriladi. Davolash choralari kompleksi yallig'lanishni davolash (diklofenak) va shishni hamda qon bosimining kamytirish uchun simptomatik terapiyani ham o'z ichiga oladi.

Keyinchalik sanatoriya-kurortlarda davolanish tavsiya etiladi. O'tkir glomerulonefritdan keyin bemorlar ikki yil nefrologning nazorati ostida bo'ladi. Surunkali glomerulonefritni davolashda kasallik xuruji davrida o'tkir glomerulonefritga o'xshash davolash tadbirlari majmuasi amalga oshiriladi. Remissiyda davrida davolash sxemasi alomatlar mavjudligi va kuchliligi asosida aniqlanadi.

Foydalanilgan adabiyotlar:

1. Jamshidovich, A. S. (2024). ВСЕ ЭФФЕКТЫ ПРЕПАРАТА ИМУДОН. *TADQIQOTLAR*, 31(2), 39-43.
2. Jamshidovich, A. S. (2024). SPECIFIC FEATURES OF THE EFFECT OF THE HEPARIN DRUG. *TADQIQOTLAR*, 31(2), 34-38.
3. Jamshidovich, A. S. (2024). USE OF GLUCOCORTICOSTEROIDS IN PEDIATRIC PRACTICE. *TADQIQOTLAR*, 31(2), 29-33.
4. Jamshidovich, A. S. (2024). РОЛЬ ИНТЕЛЛАНОВОГО СИРОПА И ЦИАНОКОБАЛАМИНА В УЛУЧШЕНИИ ПАМЯТИ. *TADQIQOTLAR*, 31(2), 44-48.
5. Jamshidovich, A. S. (2024). TREATMENT OF POLYNEUROPATHY WITH BERLITHION. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 201-209.
6. Jamshidovich, A. S. (2024). USE OF ASCORIL IN BRONCHIAL ASTHMA. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 191-200.
7. Jamshidovich, A. S. (2024). THE IMPORTANCE OF THE DRUG ARTOXAN. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 182-190.
8. Jamshidovich, A. S. (2024). THE ROLE OF RENGALIN IN CHRONIC BRONCHITIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 116-123.
9. Jamshidovich, A. S. (2024). THE ROLE OF ALMAGEL DRUG IN GASTRIC AND DUODENAL WOUND DISEASE. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 173-181.
10. Jamshidovich, A. S. (2024). THE ROLE OF CODELAK BRONCHO SYRUP IN CHILDREN'S PRACTICE. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 109-115.

11. Jamshidovich, A. S. (2024). THE AEVIT DRUG EFFECT. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 124-132.
12. Jamshidovich, A. S. (2024). THE IMPORTANCE OF ALCHEBA DRUG IN POST-STROKE APHASIA. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 132-138.
13. Jamshidovich, A. S. (2024). THE ROLE OF HYALURON CHONDRO DRUG IN OSTEOARTHRITIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 139-145.
14. Jamshidovich, A. S. (2024). EFFECT OF SIMETHICONE DROP IN FLATULENCE. *Лучшие интеллектуальные исследования*, 14(1), 95-101.
15. Jamshidovich, A. S. (2024). BENEFITS OF BETADINE SOLUTION. *Лучшие интеллектуальные исследования*, 14(1), 116-122.
16. Jamshidovich, A. S. (2024). EFFECT INHALED GLUCOCORTICOIDS IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND BRONCHIAL ASTHMA. *TADQIQOTLAR*, 31(1), 171-180.
17. Jamshidovich, A. S. (2024). USE OF VIGANTOL IN RICKETS. *Лучшие интеллектуальные исследования*, 14(1), 102-108.
18. Jamshidovich, A. S. (2024). THE VITAPROST DRUG RESULTS. *Лучшие интеллектуальные исследования*, 14(1), 109-115.
19. Jamshidovich, A. S. (2024). THE ROLE OF BISEPTOL DRUG IN URINARY TRACT DISEASE. *Лучшие интеллектуальные исследования*, 14(1), 89-94.
20. Jamshidovich, A. S. (2024). PROPERTIES OF THE DRUG DORMIKIND. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 88-92.
21. Jamshidovich, A. S., & Komilovich, E. B. (2024). IMMUNOMODULATORY FUNCTION OF DIBAZOL DRUG. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 83-87.
22. Jamshidovich, A. S., & Komilovich, E. B. (2024). ADVANTAGES OF THE DRUG NERTRAL. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 98-101.
23. Эргашов, Б. К., & Ахмедов, Ш. Ж. (2024). ГИПЕРТОНИЧЕСКАЯ БОЛЕЗНЬ ЭТИОЛОГИЯ. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 59-69.
24. Komilovich, E. B., & Jamshidovich, A. S. (2024). HYPERTENSION, CLASSIFICATION AND PATHOGENESIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 50-58.
25. Komilovich, E. B., & Jamshidovich, A. S. (2024). YURAK ISHEMIYASI. STENOKARDIYADA SHOSHILINCH TIBBIY YORDAM. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 12-20.
26. Komilovich, E. B., & Jamshidovich, A. S. (2024). HYPERTENSION ETIOLOGY. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 32-41.
27. Komilovich, E. B., & Jamshidovich, A. S. (2024). CARDIAC ISCHEMIA. ANGINA NURSING DIAGNOSIS AND CARE. *Journal of new century innovations*, 46(1), 44-52.

28. Jamshidovich, A. S. (2024). IMPORTANT INDICATIONS OF THE DRUG WOBENZYM. *Journal of new century innovations*, 46(1), 29-32.
29. Jamshidovich, A. S. (2024). THE RESULTS OF THE EFFECT OF THE DRUG VALIDOL. *Journal of new century innovations*, 46(1), 19-23.
30. Jamshidovich, A. S. (2024). VIFERON USE IN CHILDREN. *Journal of new century innovations*, 46(1), 24-28.
31. Jamshidovich, A. S. (2024). USE OF DUSPATALIN (MEBEVERINE HYDROCHLORIDE) IN GASTROINTESTINAL DISEASES. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 93-97.
32. Jamshidovich, A. S. (2024). ЭФФЕКТЫ СИРОПА ДЕПАКИНА (ВАЛЬПРОЕВАЯ КИСЛОТА). *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 148-152.
33. Jamshidovich, A. S., & Komilovich, E. B. (2024). THE IMPORTANCE OF THE DRUG ALLOCHOL FOR CHRONIC CHOLECYSTITIS. *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 133-137.
34. Jamshidovich, A. S., & Komilovich, E. B. (2024). ВАЖНЫЕ СВОЙСТВА ПРЕПАРАТА ДЕ-НОЛ (субцитрат висмута). *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 143-147.
35. Jamshidovich, A. S., & Komilovich, E. B. (2024). SPECIAL FEATURES OF BUDECTON DRUG. *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 138-142.
36. Gafurovna, A. N., Xalimovich, M. N., & Komilovich, E. B. Z. (2023). КЛИМАКТЕРИК YOSHDAGI AYOLLARDA ARTERIAL GIPERTENZIYANING KECISHI. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 23(6), 26-31.
37. Komilovich, E. B. Z. (2023). Coronary Artery Disease. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 3(12), 81-87.
38. Эргашов, Б. К. (2023). Артериальная Гипертония: Современный Взгляд На Проблему. *Research Journal of Trauma and Disability Studies*, 2(11), 250-261.
39. Эргашов, Б. К., & Мавлонов, Н. Х. (2024). ГИПЕРТОНИЧЕСКАЯ БОЛЕЗНЬ ЛЕЧЕНИЕ. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(7), 243-250.
40. Komilovich, E. B. (2024). HYPERTENSION TREATMENT. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(7), 227-234.
41. Komilovich, E. B. (2024). CORONARY HEART DISEASE. ANGINA EMERGENCY CARE. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(7), 235-242.
42. Эргашов, Б. К. (2024). ГИПЕРТОНИЧЕСКАЯ БОЛЕЗНЬ ДИАГНОСТИКА. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 70-78.
43. Эргашов, Б. К. (2024). ИШЕМИЧЕСКАЯ БОЛЕЗНЬ СЕРДЦА. СТЕНОКАРДИЯ ПРОФИЛАКТИКА. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 21-31.
44. Komilovich, E. B. (2024). YURAK ISHEMIK KASALLIGI. STENOKARDIYANI DAVOLASHNING ZAMONAVIY TAMOYILLARI. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 3-11.

45. Komilovich, E. B. (2024). HYPERTENSION DIAGNOSTICS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 42-49.
46. Komilovich, E. B., & Xalimovich, M. N. (2024). YURAK ISHEMIYASIDA HAMSHIRALIK DIAGNOSTIKASI VA PARVARISHI. *Journal of new century innovations*, 46(1), 79-85.
47. Эргашов, Б. К., & Мавлонов, Н. Х. (2024). ЗАВИСИМОСТИ В КЛИНИКЕ И ДИАГНОСТИКЕ ИШЕМИЧЕСКОЙ БОЛЕЗНИ СЕРДЦА И АРТЕРИАЛЬНОЙ ГИПЕРТОНИИ. *Journal of new century innovations*, 46(1), 53-60.
48. Komilovich, E. B., & Khalimovich, M. N. (2024). CARDIAC ISCHEMIA. ANGINA CLINICAL FORMS AND DIAGNOSIS. *Journal of new century innovations*, 46(1), 70-78.
49. Komilovich, E. B. (2024). CORONARY HEART DISEASE. ANGINA TREATMENT. *Journal of new century innovations*, 46(1), 95-104.
50. Komilovich, E. B., & Khalimovich, M. N. (2024). NURSING CARE FOR CORONARY ARTERY DISEASE, ANGINA PECTORIS. *Journal of new century innovations*, 46(1), 86-94.
51. Komilovich, E. B., & Khalimovich, M. N. (2024). DEPENDENCIES IN THE CLINIC AND DIAGNOSIS OF CORONARY HEART DISEASE AND ARTERIAL HYPERTENSION. *Journal of new century innovations*, 46(1), 61-69.
52. Ачиллов Шохрух Шавкиддин угли. (2024). ХИРУРГИЧЕСКИЕ МЕТОДЫ ЛЕЧЕНИЯ АНЕВРИЗМЫ БРЮШНОЙ АОРТЫ . *TADQIQOTLAR*, 30(3), 120–126.
53. Ачиллов Шохрух Шавкиддин угли (2023). ОСЛОЖНЕНИЯ ПОСЛЕ КОВИДА НА СОСУДАХ НИЖНИХ КОНЕЧНОСТЕЙ. *CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES* Volume: 04 Issue: 06 Oct-Nov 2023ISSN:2660-4159, 400-403.
54. Ачиллов Шохрух Шавкиддин угли (2023). НАЛОЖЕНИЕ ШИВОВ ПРИ ГНОЙНЫХ ПРОЦЕССАХ НА ТКАНИ. *CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES* Volume: 04 Issue: 06 Oct-Nov 2023ISSN:2660-4159, 292-297.
55. Irgashev, I. (2024). COVID-19 INFEKSIYSINI YUQTIRGAN KASALXONADAN TASHQARI PNEVMONIYA BILAN KASALLANGAN BEMORLARDA DROPERIDOL NEYROLEPTIK VOSITASINI QO'LLANILISHI VA UNING DAVO SAMARADORLIGIGA TA'SIRI. *Центральноазиатский журнал образования и инноваций*, 3(1), 12-18.
56. Irgashev, I. E. (2022). New Principles of Anticoagulant Therapy in Patients with Covid-19. *Research Journal of Trauma and Disability Studies*, 1(12), 15-19.
57. Irgashev, I. E. (2023). RESPIRATORY DISTRESS SYNDROME. *Horizon: Journal of Humanity and Artificial Intelligence*, 2 (5), 587–589.
58. Irgashev, I. E. (2023). Pathological Physiology of Heart Failure. *American Journal of Pediatric Medicine and Health Sciences* (2993-2149), 1(8), 378-383.
59. Irgashev, I. E., & Farmonov, X. A. (2021). Specificity of resuscitation and rehabilitation procedures in patients with covid-19. *Central Asian Journal of Medical and Natural Science*, 2(1), 11-14.

INFEKSION ENDOKARDITNING ZAMONAVIY DAVOLASH TAMOYILLARI

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Annotatsiya

Infeksion endokarditning zamonaviy davo choralari tamoyillarini bosqichma-bosqich boorish tamoyillarni ishab chiqish, yondosh kasalligi bor bemorlarda infeksiyon endoartrit kasalligini davo choralarining ehtimoliy natijalarni aniqlash

Kalit so'zlar: Yuqumli endokardit, antibiotiklar, glyukokortikoidlar, plazmaferez, antibakterial terapiya.

Infeksion endokardit (IE) - yurak qopqoqchalari, endokard va unga yaqin joylashgan magistrai qon tomirlar (aorta, o'pka arteriyasi) endoteliasiga bevosita infeksiya tushishi oqibatida polip-yarali yallig'lanish, qopqoq yoki uning ostidagi tuzilmalarda hosilalar paydo bo'lishi, ulaming destruksiyasi, faoliyati buzilishi va qopqoq yetishmovchiligi rivojlanishi bilan namoyon bo'ladi. Jarayon o'tkir yoki o'tkir osti sepsis ko'rinishida kechib, kasallik qo'zg'atuvchisi qonda aylanib yuradi va immune patologik o'zgarishlar, tromboembolik va boshqa asoratlar shakllanishiga olib keladi.

Infeksion endokarditga chalingan bemorlar shifoxona sharoitida quyidagi asosiy tamoyillarga amal qilingan holda davolanishlari lozim: Muolaja etiotrop, ya'ni qo'zg'atuvchiga qarshi qaratilgan bo'lishi; Davo maqsadida faqat bakteristid ta'sirga ega bo'lgan antibakterial vositalarni qo'llash;

> Davo jarayoni uzluksiz va davomiy bo'lishini ta'minlash: streptokokk infeksiyasida - 4 haftadan kam bo'lmasligi; stafilokokk infeksiyasida - 6 haftadan kam bo'lmasligi; grammanfiy florada - 8 haftadan kam bo'lmasligi

Davolash vaqtida tomir ichida va vegetatsiyalarda antibiotiklarni yuqori miqdorlari yaratilishi (antibiotiklarni vena ichiga tomchilab yuborish maqsadga muvofiq) zarur,

Quyidagi hollarda antibiotiklar bilan davoni to'xtatish mumkin: Tana haroratining to'liq me'yoriga kelishi; Laboratoriya ko'rsatkichlarining me'yoriga kelishi (leykotsitoz, neytrofilyoz, kamqonlikning bartaraf etilishi, ECHT pasayishiga moyillik); Qonni bakterial tekshirish natijalari manfiy bo'lishi; Kasallik faolligi klinik belgilarining yo'qolishi. Immunpatologik reaksiya belgilari (glomerulonefrik artritlar, miokardit, vaskulit) kuchayganda qo'llash maqsadga muvofiq: Glyukokortikoidlar (prednizolon kunda 15-20 mg gacha); Antiagregantlar; Giperimmun zardob; Odam

immunoglobulini;Plazmoferez va boshqalar.Konservativ davu 4 hafta davomida samara bermaganda yoki boshqa ko'rsatmalar mavjud bo'lganda jarrohlik amaliyoti o'tkaziladi.*Antibakterial terapiya.* So'nggi yillarda ko'plab yuqori samarali antibiotiklar va kimyoviy preparatlar yaratilishiga qaramay IE ni davolash o'ta dolzarbligicha qolmoqda. Bunga sabab kasallik qo'zg'atuvchilarining antibakterial davoga turg'un va yuqori virulent turlari ortib borayotganligi (stafilokokk, ko'k yiringli tayoqcha, grammanfiy mikroorganizmlar), aksariyat bemorlaming immun tizimi susayganligi, keksa yoshdagi bemorlar hisoblanadi.Bundan tashqari, antibakterial terapiya yalligianish o'chog'ida (vegetatsiyalar) joylashgan va trombin-fibrin "himoya" qobigiga oialgan qo'zg'atuvchiga ta'sir qila oladigan darajada boiishiga bogiiq. IEni davolashda quyidagi bakteritsid ta'sirga ega boigan dori guruhlari keng qoilaniladi:Bakteriyalar hujayra devori sintezi ingibitorlari - p-laktamlar(penitsillin, sefalosporin, karbope- ncmlar);Oqsil sintezi ingibitorlari (aminoglikozidlar, rifampitsin);Nuklein kislotalar sintezi ingibitorlari (ftorxinolonlar).

IEni patogenetik va simptoinatik davosi nospetsifik yallig'lanishga qarshi vositalar, musbat inotrop ta'sirga ega bo'lgan preparatlar, diuretiklar, AAFIlari. dezagregantlar va antikoagulyantlami qo'llagan holda o'tkaziladi. Ulaming kompleks ta'siri intoksikatsiyani, iminunkompleks reaksiyalami. yurak yetish- movchiligini kompensatsiyalash, asoratlami davolash. gemostaz tizimidagi o'zgarishlami bartaraf etishga qaratilgan. Infeksion-toksik sindromni davolashda bcmor ahvolini va buyraklarning ajratish faoliyatini hi- sobga olgan holda infuzion muolaja olib boriladi. Eritmalar (fiziologik eritma, 5 %, 10 % li glukoza erit- masi, poliglyukin), siydik haydovchi vositalar tavsiya etganda kunlik diurez miqdori tomirga yuborilgan suyuqliklardan 300-400 ml ko'p bo'lishi kerak. Tana harorati 38°C dan yuqoriligida issiqlikni tushiruvchi vositalar qo'Tlaniladi. Stafilokokk etiologiyali IE bilan og'rigan bemorlarga intoksikatsiyani kamaytirish maqsadida umum qabul qilingan tartibda antistafilokokkli donor qon zardobi (plazmasi) tavsiya etiladi.

IE bilan og'rigan bemorlarda bosh miya qon aylanishi o'tkir buzilishi xavfi mavjud bo'lganda antikoagulyantlami qo'llash maqsadga muvofiq emas. Chunki ular gemorragik insult rivojlanish xavfini oshiradi. Shu bilan bir qatorda qonni tomir ichi disseminirlangan ivish sindromi rivojlanish ehtimoli bo'Tganda bilvosita antikoagulyantlar, antiagregantlar. geparin (kuniga bir/kgtana vazniga 100-400 birlikda) va yangi muzlatilgan qon zardobi (kunda 8-12 ml/kg) qo'Tlaniladi.

Doimo peroral antikoagulyantlar qabul qilib yuradigan sun'iy yurak qopqog'i mavjud bo'Tgan bemorlarda IE rivojlanganda geparin (fraksiparin) buyuriladi. Kasallikning birinchi ikki haftasida antibakterial davu olayotgan bemorda markaziy asab tizimida emboliya rivojlanganda antikoagulyantlar vaqtincha to'xtatiladi.

IE da yurak yetishmovchiligi sindromi infeksion-toksik miokardit va yurak qopqoqlari yetishmovchiligi oqibatida miokardning qisqaruvchanlik xususiyati pasayishi hisobiga rivojlanadi. Shu sababli bir vaqttni o'zida miokardni inotrop

qo'zg'alish, unga kelayotgan oldingi va so'nggi yuklamani kamaytirish, yalligTanish va autoimmun jarayonni bartaraf etish lozim. Ushbu maqsadga erishish uchun bemorahvolidan kelib chiqqan holda yurak glikozidlari, musbat inotrop ta'sirga ega bo'lgan vositalar, hujayra membranasini va yalligTanish jarayonini hamda miokardiositlardagi autoimmun shikastlanishni muvozanatlash uchun prednizolon, yurakdagi yuklamani kamaytirish maqsadida diuretiklar (halqaii. tiazidli), AAFllari. periferik vazodilatatorlar (nitratlar, gidralazin) qoTlaniladi. Dorilar dozasi bemor ahvolidan kelib chiqqan holda alohida tanlanadi.

IE klinikasida autoimmun jarayon belgilari (poliserozit, glomerulonefrit, miokardit, gemorragik vaskulit) ustunlik qilganda GK (prednizolon kunda 20-30 mg) qoTlaniladi.

Jarrohlik usuli yordamida davolash. IE jarrohlik amaliyoti yurak bo'shliqlarini tozalash va gemodinamik buzilishlarni to'rtiq bartaraf etishdan iborat. Ushbu maqsadda jarohatlangan to'qimalar olib tashlanadi va antibiotiklar bilan muqobil davolash o'tkaziladi. Zarurat tugTlganda zararlangan qopqoq o'miga sun'iy o'matiladi.

Foydalanilgan adabiyotlar

1. Jamshidovich, A. S. (2024). ВСЕ ЭФФЕКТЫ ПРЕПАРАТА ИМУДОН. *TADQIQOTLAR*, 31(2), 39-43.
2. Jamshidovich, A. S. (2024). SPECIFIC FEATURES OF THE EFFECT OF THE HEPARIN DRUG. *TADQIQOTLAR*, 31(2), 34-38.
3. Jamshidovich, A. S. (2024). USE OF GLUCOCORTICOSTEROIDS IN PEDIATRIC PRACTICE. *TADQIQOTLAR*, 31(2), 29-33.
4. Jamshidovich, A. S. (2024). РОЛЬ ИНТЕЛЛАНОВОГО СИРОПА И ЦИАНОКОБАЛАМИНА В УЛУЧШЕНИИ ПАМЯТИ. *TADQIQOTLAR*, 31(2), 44-48.
5. Jamshidovich, A. S. (2024). TREATMENT OF POLYNEUROPATHY WITH BERLITHION. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 201-209.
6. Jamshidovich, A. S. (2024). USE OF ASCORIL IN BRONCHIAL ASTHMA. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 191-200.
7. Jamshidovich, A. S. (2024). THE IMPORTANCE OF THE DRUG ARTOXAN. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 182-190.
8. Jamshidovich, A. S. (2024). THE ROLE OF RENGALIN IN CHRONIC BRONCHITIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 116-123.
9. Jamshidovich, A. S. (2024). THE ROLE OF ALMAGEL DRUG IN GASTRIC AND DUODENAL WOUND DISEASE. *Ta'limning zamonaviy transformatsiyasi*, 4(1), 173-181.

10. Jamshidovich, A. S. (2024). THE ROLE OF CODELAK BRONCHO SYRUP IN CHILDREN'S PRACTICE. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 109-115.
11. Jamshidovich, A. S. (2024). THE AEVIT DRUG EFFECT. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 124-132.
12. Jamshidovich, A. S. (2024). THE IMPORTANCE OF ALCHEBA DRUG IN POST-STROKE APHASIA. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 132-138.
13. Jamshidovich, A. S. (2024). THE ROLE OF HYALURON CHONDRON DRUG IN OSTEOARTHRITIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(4), 139-145.
14. Jamshidovich, A. S. (2024). EFFECT OF SIMETHICONE DROP IN FLATULENCE. *Лучшие интеллектуальные исследования*, 14(1), 95-101.
15. Jamshidovich, A. S. (2024). BENEFITS OF BETADINE SOLUTION. *Лучшие интеллектуальные исследования*, 14(1), 116-122.
16. Jamshidovich, A. S. (2024). EFFECT INHALED GLUCOCORTICOSTEROIDS IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND BRONCHIAL ASTHMA. *TADQIQOTLAR*, 31(1), 171-180.
17. Jamshidovich, A. S. (2024). USE OF VIGANTOL IN RICKETS. *Лучшие интеллектуальные исследования*, 14(1), 102-108.
18. Jamshidovich, A. S. (2024). THE VITAPROST DRUG RESULTS. *Лучшие интеллектуальные исследования*, 14(1), 109-115.
19. Jamshidovich, A. S. (2024). THE ROLE OF BISEPTOL DRUG IN URINARY TRACT DISEASE. *Лучшие интеллектуальные исследования*, 14(1), 89-94.
20. Jamshidovich, A. S. (2024). PROPERTIES OF THE DRUG DORMIKIND. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 88-92.
21. Jamshidovich, A. S., & Komilovich, E. B. (2024). IMMUNOMODULATORY FUNCTION OF DIBAZOL DRUG. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 83-87.
22. Jamshidovich, A. S., & Komilovich, E. B. (2024). ADVANTAGES OF THE DRUG NERTRAL. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 98-101.
23. Эргашов, Б. К., & Ахмедов, Ш. Ж. (2024). ГИПЕРТОНИЧЕСКАЯ БОЛЕЗНЬ ЭТИОЛОГИЯ. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 59-69.
24. Komilovich, E. B., & Jamshidovich, A. S. (2024). HYPERTENSION, CLASSIFICATION AND PATHOGENESIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 50-58.

25. Komilovich, E. B., & Jamshidovich, A. S. (2024). YURAK ISHEMIYASI. STENOKARDIYADA SHOSHILINCH TIBBIY YORDAM. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 12-20.
26. Komilovich, E. B., & Jamshidovich, A. S. (2024). HYPERTENSION ETIOLOGY. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 32-41.
27. Komilovich, E. B., & Jamshidovich, A. S. (2024). CARDIAC ISCHEMIA. ANGINA NURSING DIAGNOSIS AND CARE. *Journal of new century innovations*, 46(1), 44-52.
28. Jamshidovich, A. S. (2024). IMPORTANT INDICATIONS OF THE DRUG WOBENZYM. *Journal of new century innovations*, 46(1), 29-32.
29. Jamshidovich, A. S. (2024). THE RESULTS OF THE EFFECT OF THE DRUG VALIDOL. *Journal of new century innovations*, 46(1), 19-23.
30. Jamshidovich, A. S. (2024). VIFERON USE IN CHILDREN. *Journal of new century innovations*, 46(1), 24-28.
31. Jamshidovich, A. S. (2024). USE OF DUSPATALIN (MEBEVERINE HYDROCHLORIDE) IN GASTROINTESTINAL DISEASES. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(5), 93-97.
32. Jamshidovich, A. S. (2024). ЭФФЕКТЫ СИРОПА ДЕПАКИНА (ВАЛЬПРОЕВАЯ КИСЛОТА). *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 148-152.
33. Jamshidovich, A. S., & Komilovich, E. B. (2024). THE IMPORTANCE OF THE DRUG ALLOCHOL FOR CHRONIC CHOLECYSTITIS. *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 133-137.
34. Jamshidovich, A. S., & Komilovich, E. B. (2024). ВАЖНЫЕ СВОЙСТВА ПРЕПАРАТА ДЕ-НОЛ (субцитрат висмута). *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 143-147.
35. Jamshidovich, A. S., & Komilovich, E. B. (2024). SPECIAL FEATURES OF BUDECTON DRUG. *Ta'lim innovatsiyasi va integratsiyasi*, 14(2), 138-142.
36. Gafurovna, A. N., Xalimovich, M. N., & Komilovich, E. B. Z. (2023). KLIMAKTERIK YOSHDAGI AYOLLARDA ARTERIAL GIPERTENZIYANING KESHISHI. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 23(6), 26-31.
37. Komilovich, E. B. Z. (2023). Coronary Artery Disease. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 3(12), 81-87.
38. Эргашов, Б. К. (2023). Артериальная Гипертония: Современный Взгляд На Проблему. *Research Journal of Trauma and Disability Studies*, 2(11), 250-261.
39. Эргашов, Б. К., & Мавлонов, Н. Х. (2024). ГИПЕРТОНИЧЕСКАЯ БОЛЕЗНЬ ЛЕЧЕНИЕ. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(7), 243-250.

40. Komilovich, E. B. (2024). HYPERTENSION TREATMENT. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(7), 227-234.
41. Komilovich, E. B. (2024). CORONARY HEART DISEASE. ANGINA EMERGENCY CARE. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(7), 235-242.
42. Эргашов, Б. К. (2024). ГИПЕРТОНИЧЕСКАЯ БОЛЕЗНЬ ДИАГНОСТИКА. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 70-78.
43. Эргашов, Б. К. (2024). ИШЕМИЧЕСКАЯ БОЛЕЗНЬ СЕРДЦА. СТЕНОКАРДИЯ ПРОФИЛАКТИКА. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 21-31.
44. Komilovich, E. B. (2024). YURAK ISHEMIK KASALLIGI. STENOKARDIYANI DAVOLASHNING ZAMONAVIY TAMOUYILLARI. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 3-11.
45. Komilovich, E. B. (2024). HYPERTENSION DIAGNOSTICS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 38(6), 42-49.
46. Komilovich, E. B., & Xalimovich, M. N. (2024). YURAK ISHEMIYASIDA HAMSHIRALIK DIAGNOSTIKASI VA PARVARISHI. *Journal of new century innovations*, 46(1), 79-85.
47. Эргашов, Б. К., & Мавлонов, Н. Х. (2024). ЗАВИСИМОСТИ В КЛИНИКЕ И ДИАГНОСТИКЕ ИШЕМИЧЕСКОЙ БОЛЕЗНИ СЕРДЦА И АРТЕРИАЛЬНОЙ ГИПЕРТОНИИ. *Journal of new century innovations*, 46(1), 53-60.
48. Komilovich, E. B., & Khalimovich, M. N. (2024). CARDIAC ISCHEMIA. ANGINA CLINICAL FORMS AND DIAGNOSIS. *Journal of new century innovations*, 46(1), 70-78.
49. Komilovich, E. B. (2024). CORONARY HEART DISEASE. ANGINA TREATMENT. *Journal of new century innovations*, 46(1), 95-104.
50. Komilovich, E. B., & Khalimovich, M. N. (2024). NURSING CARE FOR CORONARY ARTERY DISEASE, ANGINA PECTORIS. *Journal of new century innovations*, 46(1), 86-94.
51. Komilovich, E. B., & Khalimovich, M. N. (2024). DEPENDENCIES IN THE CLINIC AND DIAGNOSIS OF CORONARY HEART DISEASE AND ARTERIAL HYPERTENSION. *Journal of new century innovations*, 46(1), 61-69.
52. Ачилов Шохрух Шавкиддин угли. (2024). ХИРУРГИЧЕСКИЕ МЕТОДЫ ЛЕЧЕНИЯ АНЕВРИЗМЫ БРЮШНОЙ АОРТЫ . *TADQIQOTLAR*, 30(3), 120–126.
53. Ачилов Шохрух Шавкиддин угли (2023). ОСЛОЖНЕНИЯ ПОСЛЕ КОВИДА НА СОСУДАХ НИЖНИХ КОНЕЧНОСТЕЙ. *CENTRAL ASIAN*

JOURNAL OF MEDICAL AND NATURAL SCIENCES Volume: 04 Issue: 06 Oct-Nov 2023 ISSN:2660-4159, 400-403.

54. Ачилов Шохрух Шавкиддин угли (2023). НАЛОЖЕНИЕ ШИВОВ ПРИ ГНОЙНЫХ ПРОЦЕССАХ НА ТКАНИ. CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES Volume: 04 Issue: 06 Oct-Nov 2023 ISSN:2660-4159, 292-297.
55. Irgashev, I. (2024). COVID-19 INFEKSIYSINI YUQTIRGAN KASALXONADAN TASHQARI PNEVMONIYA BILAN KASALLANGAN BEMORLARDA DROPERIDOL NEYROLEPTIK VOSITASINI QO'LLANILISHI VA UNING DAVO SAMARADORLIGIGA TA'SIRI. Центральноазиатский журнал образования и инноваций, 3(1), 12-18.
56. Irgashev, I. E. (2022). New Principles of Anticoagulant Therapy in Patients with Covid-19. Research Journal of Trauma and Disability Studies, 1(12), 15-19.
57. Irgashev, I. E. (2023). RESPIRATORY DISTRESS SYNDROME. Horizon: Journal of Humanity and Artificial Intelligence, 2 (5), 587–589.
58. Irgashev, I. E. (2023). Pathological Physiology of Heart Failure. American Journal of Pediatric Medicine and Health Sciences (2993-2149), 1(8), 378-383.
59. Irgashev, I. E., & Farmonov, X. A. (2021). Specificity of resuscitation and rehabilitation procedures in patients with covid-19. Central Asian Journal of Medical and Natural Science, 2(1), 11-14.

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**ЭПИЗООТОЛОГИЧЕСКИЕ ДАННЫЕ И ПРОФИЛАКТИЧЕСКИЕ
МЕРОПРИЯТИЯ ДИКТИОКАУЛЕЗА КРУПНОГО РОГАТОГО СКОТА
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Аннотация: В научной статье представлены эпизоотологические данные диктиокаулёза крупного рогатого скота, профилактика, эффективности защита телят от инвазии.

Annotation: The scientific article presents epizootological data on dictyocaulosis in cattle, prevention, and the effectiveness of protecting calves from invasion.

Ключевые слова: Диктиокаулез, паразитоносители, пастбища, стойлово-выгульное, телят.

Актуальность темы. Диктиокаулез жвачных животных широко распространен. Убытки, наносимые диктиокаулезом, складываются из падежа и вынужденного убоя заболевших животных, переболевший молодняк плохо развивается, отстает в росте, у взрослых животных снижается продуктивность, ухудшается качество мяса, шерсти и кожи. Инвазированные животные более восприимчивы к другим болезням и тяжелее их переносят. В настоящее время вся система мер борьбы с диктиокаулезом основана на систематической дегельминтизации животных. На рынке представлен широкий спектр антгельминтиков, но в подавляющем большинстве они либо токсичны, либо мало эффективны.

Эпизоотологические данные. Основным источником распространения диктиокаулеза являются больные животные и паразитоносители. Заболевание имеет сезонный характер. Наиболее интенсивное заражение животных происходит в конце лета и в начале осени. После дождей и росы личинки диктиокаулюсов активно мигрируют в траве и поедаются скотом в значительном количестве. Резервуаром заражения диктиокаулезом служат пастбища, поймы рек, мелкие водоемы, которые усеяны личинками данных гельминтов. Территория вблизи загонов для скота заросшая кустарником также является неблагоприятной по данному гельминтозному заболеванию. Инвазионные личинки диктиокаулюсов в сравнительно сухих условиях не теряют своей

жизнеспособности в течение нескольких дней, а при достаточной влажности живут в течение 4-6 месяцев. Зимой на инвазированных пастбищах личинки погибают. Телята и ягнята могут заразиться диктиокаулезом и в загонах при скармливании им зеленой травы, которую скосили на лугах, пойме рек, полях неблагоприятных по данному инвазионному заболеванию. У самок диктиокаулюсов с наступлением холодной осенней погоды наступает половая депрессия, и они перестают откладывать яйца. Отмечено, что при хорошей упитанности у животных осеннее заражение проходит латентно (скрыто) то есть попавшие в организм животного личинки находятся в "дремлющем" состоянии в лимфатических узлах. С наступлением летнее пастбищного периода в результате неполноценного кормления, нарушений в зоогигиенических условиях содержания, перенесенных заболеваний и так далее происходит снижение резистентности организма, в результате чего "затаившиеся" личинки разрушают естественные барьеры и мигрируют в легкие (трахея, бронхи).

Профилактические мероприятия. Резкое увеличение заболеваемости в некоторых зонах указывает на наличие большого количества животных диктиокаулоносителей. В неблагоприятных в отношении этой болезни хозяйствах в предпастбищный период особенно много инвазировано телят в возрасте до года и небольшое количество коров нетелей. Отмечено, что если своевременно до выгона на пастбище не обследовать и не дегельминтизировать таких животных, то они заражают диктиокаулёзами участки и места водопоя, а следовательно, и еще неинвазированных телят.

Во многих хозяйствах и телят дегельминтизируют только после появления клинических признаков инвазии, когда эти животные уже выделили большое количество личинок в окружающую среду, способствуя тем самым перезаражению животных в стаде. Необходимо помнить, что лечение телят при диктиокаулезе эффективно лишь в начальной стадии заболевания и обязательно при двукратной дегельминтизации с интервалом 10-12 дней. В ряде случаев, кроме дегельминтизации, других мероприятий не проводят.

Во многих зонах республики климатические условия способствовали значительному снижению заболеваемости животных диктиокаулезом. Однако не только климатическими условиями объясняется снижение заболеваемости. Во многих областях с целью профилактики инвазии телят перевели на стойлово-выгульное содержание. Это мероприятие является наиболее эффективным в предупреждении диктиокаулеза.

В данном случае телят выращивают изолированно с выгоном на пастбище или содержат только в загонах. Ранней весной оборудуют лагеря на сухих участках с благоустроенным водопоем вдали от выпасов и других мест содержания старших возрастных групп крупного рогатого скота. До перевода в лагеря телят содержат изолированно от молодняка прошлого года рождения. Для

выпасов выбирают участки, где осенью не находился неблагополучный по диктиокаулезу молодняк и взрослые животные. Во многих хозяйствах для этого используют участки сеяных трав.

При наличии достаточного количества выпасов организуют загонную систему пастбы с периодической сменой участков. Телят свободных от диктиокаулюсов, допускается пасти на одном участке в течение одного-двух месяцев в зависимости от качества травостоя. Если при обследовании выявляются зараженные диктиокаулюсами животные, участки в начале пастбищного периода меняют через каждые 10-12 дней, а с наступлением летних теплых дней через 5-6 дней. Повторное использование этих участков допускается не раньше чем через 2-3 месяца.

При недостатке выпасов телят переводят на изолированное стойлово-выгульное содержание. При этом весной их выращивают в помещении, обособленном от молочнотоварной фермы. Для прогулки телят огораживают выгульный двор из расчета не менее 25 м/кв площади на каждое животное. В загонах оборудуют передвижные кормушки и корыта. Кормят животных травой, скошенной на участках, где не выпасали зараженный диктиокалёмом скот. Поят телят из чистых водоемов. Во дворе устраивают теньевые навесы, а вокруг делают отводные каналы. Помещение и выгульные дворы содержат в надлежащем санитарном состоянии.

Изолированное стойлово-выгульное содержание телят, являясь хорошим методом профилактики диктиокаулёза, способствует также повышению продуктивности и снижению себестоимости выращиваемого молодняка. Многие руководители хозяйств сообщают также о повышении среднесуточного привеса у телят при таком методе содержания. Оздоровление неблагополучных хозяйств от диктиокаулеза требует большого внимания и постоянного ветеринарного наблюдения за выращиванием молодняка крупного рогатого скота. Независимо от метода содержания телят через 40-45 дней после ыгона на пастбище, а затем через 20-25 дней необходимо проводить диагностические исследования и при обнаружении даже единичных личинок диктиокаулюсов всех животных дегельминтизировать. Через шесть-семь дней после обработки следует проводить контрольное обследование.

Осенью изолированно выращенных телят следует перевозить в чистое незараженное помещение, обособленное от скота других возрастных групп. На следующий год к животным этой группы обычно поступают также изолированно выращенный молодняк следующего года рождения. Итак в течение нескольких лет основное стадо может быть полностью освобождено от диктиокаулоносителей. Но при этом необходимо иметь в виду зараженность скота, принадлежащего гражданам. Здесь также нужно проводить профилактические мероприятия.

Особенно следует избегать заноса инвазии при поступлении телят из других хозяйств. Этих животных необходимо выдерживать в течение одного месяца в карантине и двукратно обследовать на диктиокаулёз и другие гельминтозы. В общее стадо их можно допускать лишь после полного освобождения от гельминтов. Правильная организация профилактических и лечебных мероприятий против диктиокаулёза позволит резко сократить заболеваемость и полностью оздоровить животноводческие фермы от этой инвазии.

Заключения. Анализ отечественной и иностранной литературы свидетельствует, что диктиокаулёз крупного рогатого скота, вызываемый нематодой *Dic-tyo-caulus viviparus*, имеет довольно широкое распространение. Основная роль в эпизоотологии любого гельминтоза принадлежит климато-географическим условиям местности, так как они определяют, во-первых, систему ведения животноводства; во-вторых, интенсивность накопления инвазионного начала на пастбищах. В декабре-апреле происходит спад ЭИ и ИИ.

Снижение инвазии в этот период объясняется проведением дегельминтизации животных в стойловый период, а также самоотхождением нематод.

Список литературы

1. Ахмадалиев, Н. Т., Хушназаров, А. Х., & Давлатов, Р. Б. (2023). ҚУЁН ЭЙМЕРОЗИНИНГ ЭПИЗОТОЛОГИЯСИ.
2. Akhmadaliev, N. T., Khushnazarov, A. K., & Davlatov, R. B. (2023). EPIZOOTOLOGY OF RABBIT EYMEROSIS.
3. Berdiyevich, D. R., Khudoiyberdi o'g'li, K. A., & Ilhomovna, K. M. (2022). EPIZOOTOLOGY OF EIMERIOSIS (COCCIDIOSIS) OF RABBITS, TREATMENT AND PREVENTIVE MEASURES. *Ann. For. Res*, 65(1), 602-607.
3. Davlatov, R. B., & Khushnazarov, A. X. (2022). TREATMENT AND PREVENTIVE MEASURES OF THE EPISOTOLOGY OF RABBIT EMERIOSIS. *SCIENTIFIC JOURNAL OF AGROBIOTECHNOLOGY AND VETERINARY MEDICINE*, 181-184.
4. Davlatov, R. B., & Khushnazarov, A. K. (2024). Diagnosis and chemoprophylaxis of rabbit eymeriosis. In *E3S Web of Conferences* (Vol. 480, p. 03020). EDP Sciences.
5. Давлатов, Р., & Хушназаров, А. (2022). Эпизотология эймериоза (кокцидоза) кроликов, лечение и профилактика. in *Library*, 22(4).
6. Давлатов, Р. Б., & Хушназаров, А. Х. (2022). ҚУЁН ЭЙМЕРИОЗИ ЭПИЗОТОЛОГИЯСИ ДАВОЛАШ ВА ПРОФИЛАКТИКА ЧОРА-ТАДБИРЛАРИ. *AGROBIOTEKNOLOGIYA VA VETERINARIYA TIBBIYOTI ILMIY JURNALI*, 181-184.
7. Давлатов, Р., & Хушназаров, А. (2022). Epizootology of eimeriosis (coccidiosis) of rabbits, treatment and preventive measures. *Library*, 22(4), 15.

8. Ergashov, S. I., Xushnazarov, A. X., & Davlatov, R. B. (2023). QUYONLAR EYMERIOZNI DAVOLASHDA KENG QO 'LLANILADIGAN PREPARATLAR. *Journal of new century innovations*, 22(3), 58-64.

9. Ergashov, S. I., Khushnazarov, A. X., & Davlatov, R. B. (2023). DRUGS WIDELY USED IN THE TREATMENT OF EMERIOSIS IN RABBITS. *Journal of new century innovations*, 22(3), 58-64.

10. Ergashov, S. I., & Eshqorayev, A. M. (2023). PROTECTION OF RABBITS FROM EYMERIOSIS (COCCIDIOSIS). *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 14(5), 121-127.

11. Ergashov, S. I., & Eshqorayev, A. M. (2023). EMERIOSIS OF RABBITS (LITERATURE ANALYSIS). *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 14(5), 114-120.

12. Эшкораев, А., Хушназаров, А., & Давлатов, Р. (2023). Развитие, эпизоотология, лечение и профилактика эмериоза кроликов. *in Library*, 1(1), 65–71.

13. Газнакулов, Т. К., Орипов, А. О., Сафаров, А. А., Хушназаров, А. Х., Давлатов, Р. Б., Абдухакимов, Ш., ... & Мавланов, С. (2023). ХС Салимов, МК Бутаев, ЗЭ Рузиев, –Биохавфсизлик.

14. Izbasarov, U., Turdiev, A., Duskulov, V., & Khushnazarov, A. (2021). Sanitary and hygienic assessment of floors in livestock buildings in a hot climate. *Library*, 21(1), 214-217.

15. Izbasarov, U., Khushnazarov, A., Khamraev, A. K., & Izbasarov, S. U. (2020). Creation of new domestic phyto-tissue preparations for veterinary medicine. *Library*, 20(4), 296-299.

16. Izbasarov, U., Khushnazarov, A., & Khamroev, A. (2020). Treatment of dermatological and gynecological diseases of humans and animals. *Library*, 20(4), 296-299.

17. Избасаров, У., Хушназаров, А., Хамраев, А. Х., & Избасаров, Ш. У. (2020). Создание новых отечественных фито-тканевых препаратов для ветеринарной медицине. *in Library*, 20(4), 296-299.

18. Избасаров, У., Хушназаров, А., & Хамроев, А. (2020). Лечение дерматологических и гинекологических заболеваний человека и животных. *in Library*, 20(4), 296-299.

19. Избасаров, У., Турдиев, А., Дускулов, В., & Хушназаров, А. (2021). Санитарно-гигиеническая оценка полов в животноводческих помещениях в условиях жаркого климата. *in Library*, 21(1), 214-217.

20. Khudoyberdievich, K. A., Khushnazarova, M. I., & Isokulova, Z. X. (2022). PREVALENCE, DIAGNOSIS, TREATMENT AND PREVENTION OF RABBIT EMERIOSIS. *RESEARCH AND EDUCATION*, 1(9), 245-249.

21. Khushnazarov, A. K., & Davlatov, R. B. (2023). DIAGNOSTICS OF RABBIT EMERIOSIS. *Journal of new century innovations*, 22(3), 72-77.
22. Khushnazarov, A. K., Eshkorayev, A. M., & Davlatov, R. B. (2023). DEVELOPMENT, EPISOTOLGY, TREATMENT AND PREVENTIVE MEASURES OF EMERIOSIS IN RABBITS. *Journal of new century innovations*, 22(3), 65-71.
23. Khushnazarov, A. H., Rayimkulov, I. H., Eshkoraev, A. M., & Davlatov, R. B. (2023). CHEMIOPROPHYLAXIS OF EMERIOZINING IN RABBIT. *SCHOLAR*, 1(2), 56-62.
24. Khushnazarov, A., Rayimkulov, I., & Eshkoraev, A. (2023). METHODS OF KEEPING RABBITS IN MODERN CAGES. *Eurasian Journal of Medical and Natural Sciences*, 3(1 Part 2), 52-57.
25. Khushnazarov, A. K., Khushnazarova, M. I., & Isokulova, Z. K. (2023). EIMERIOCID DRUGS KUYONG EIMERIOSYS KOLLASH. *Innovative Development in Educational Activities*, 2(1), 138-143.
26. Khushnazarov, A., & Davlatov, R. B. (2022). Rabbit eimeriozin in treatment vazuril of the drug efficiency. *Library*, 22(2), 173-174.
27. Khushnazarov, A., Uroкова, M., & Kurbonova, M. (2021). Kuyonlarni emeriozdan asraylik. *Library*, 21(1), 44-47.
28. Khushnazarov, A., Uroкова, M., & Kurbonova, M. (2021). Kuyonlarni emeriozdan asraylik. *Library*, 21(1), 44-47.
29. Khushnazarov, A. X. (2022). OBZOR LITERATURNYX DANNYX PO KHIMIOTERAPII I KHIMIOPROPHYLAKTIKI EYMEROZA KROLIKOV. *Journal of PEDAGOGS*, 23(2), 83-86.
30. Мухаммадиев, У. И., Хушназаров, А. Х., & Давлатов, Р. Б. (2023). BIOLOGICAL CHARACTERISTICS OF RABBITS. KEEPING AND FEEDING TECHNOLOGY.
31. Курбанов, Ш. Х., Отабоев, Х. Э., Эшқораев, А. М., & Фармонов, М. У. (2022). ЖИГАР ТРЕМАТОДАЛАРИНИНГ БИОЭКОЛОГИК ВА ЭПИЗОТОЛОГИК ХУСУСИЯТЛАРИ. *RESEARCH AND EDUCATION*, 1(9), 256-264.
32. Rayimkulov, I. K., Eshkoraev, A. M., & Kuliev, V. A. (2023). Pathomorphology of Catarrhal-Yiringli Bronchopneumonia in sheep. *Journal of Innovation, Creativity and Art*, 2(2), 43-46.
33. Расулов, У., Хушназаров, А., & Камалов, Ф. (2020). Защитим крупный крот от тейлероизационной болезни. *in Library*, 20(4), 15-16.
34. Расулов, У., Хушназаров, А., & Давлатов, Р. (2023). Диагностика и эпизоотология эмериоза кроликов. *in Library*, 1(2), 366-368.
35. Раимкулов, И., Хушназаров, А., & Эшқораев, А. (2023). Способы кормления кроликов в современных клетках. *in Library*, 1(1), 52-57.

36. Раимкулов, И., Хушназаров, А., Эшқораев, А., & Давлатов, Р. (2023). Химиофилактика эмериоза кроликов. in *Library*, 1(1), 56–62.
37. Турсункулов, А. Р., & Хушназаров, А. Х. (2020). ҲАЙВОНЛАРНИНГ ЛАРВАЛЬ ЦЕСТОДОЗЛАРИ ВА УЛАРНИНГ ОЛДИНИ ОЛИШ ЧОРАТАДБИРЛАРИ. *ҚОРАКЎЛЧИЛИК ВА ЧЎЛ ЭКОЛОГИЯСИ ИЛМИЙ-ТАДҚИҚОТ ИНСТИТУТИ*, 332.
38. Uroкова, М., Акрамова, М., & Khushnazarov, А. Х. (2021). Rabbits eimeriozin of treatment efficient methods. *Library*, 21(2), 115-117.
39. Урокова, М., Акрамова, М., & Хушназаров, А. Х. (2021). Эффективные методы лечения эмериоза у кроликов. in *Library*, 21(2), 115-117.
40. Урокова, М., Акрамова, М., & Хушназаров, А. Х. (2021). Эффективные методы лечения эмериоза у кроликов. in *Library*, 21(2), 115-117.
41. Хушназаров, А. Х., Райимкулов, И. Х., Эшқораев, А. М., & Давлатов, Р. Б. (2023). Қуён эймериозининг кимёпрофилактикаси. *SCHOLAR*, 1(2), 56-62.
42. Хушназаров, А., & Давлатов, Р. (2023). Қуён эймериозининг тарқалиши ва патологоанатомик таҳқиси. *Library*, 1(1), 15-17.
43. Хушназаров, А., Эшқораев, А., Ахмадалиев, Т., & Давлатов, Р. (2023). Эпизоотологические диагностические и профелактические данные эймериоз кроликов. in *Library*, 1(1), 1068-1080.
44. Хушназаров, А., & Давлатов, Р. (2023). Распространение и патологоанатомическая диагностика эмериоза кроликов. in *Library*, 1(1), 15-17.
45. Хушназаров, А. Х., & Давлатов, Р. Б. (2023). HISTORY AND SYSTEMATIC STATUS OF THE STUDY OF RABBIT EYMEROSIS.
46. Хушназаров, А., Райимкулов, И., & Эшқораев, А. (2023). ЗАМОНАВИЙ КАТАКЛАРДА ҚУЁНЛАРНИ БОҚИШ УСУЛЛАРИ. *Евразийский журнал медицинских и естественных наук*, 3(1 Part 2), 52-57.
47. Хушназаров, А. Х., Хушназарова, М. И., & Исоқулова, З. Х. (2023). Эймериоцид препаратларни қуён эймериозидида қўллаш. *Innovative Development in Educational Activities*, 2(1), 138-143.
48. Хушназаров, А., & Давлатов, Р. Б. (2022). Quyon eymeriozini davolashda vazuril preparatining samaradorligi. *Library*, 22(2), 173-174.
49. Хушназаров, А., & Давлатов, Р. (2022). Пастдарғом ва ургут туманларида қуён эймериозининг эпизоотик ҳолати. *Library*, 22(1), 31-32.
50. Хушназаров, А., & Давлатов, Р. (2022). Қуён эймериозини даволашда янги эймериостатикнинг самарадорлиги. *Library*, 22(1), 28-29.
51. Хушназаров, А., & Давлатов, Р. Б. (2022). Эффективность вазурила при лечении эймериоза кролика. in *Library*, 22(2), 173-174.
52. Хушназаров, А., & Давлатов, Р. (2022). Эпизототическая ситуация по эмериозу кролика в пастдаргомском и ургутском районах. in *Library*, 22(1), 31-32.

53. Хушназаров, А., & Давлатов, Р. (2022). Эффективность нового эмериостатического препарата в лечении эмериоза кроликов. *in Library*, 22(1), 28-29.
54. Хушназаров, А. Х. (2022). ОБЗОР ЛИТЕРАТУРНЫХ ДАННЫХ ПО ХИМИОТЕРАПИИ И ХИМИОПРОФИЛАКТИКИ ЭЙМЕРИОЗА КРОЛИКОВ. *PEDAGOGS jurnali*, 23(2), 83-86.
55. Худойбердиевич, Х. А., Хушназарова, М. И., & Исоқулова, З. Х. (2022). ҚУЁН ЭЙМЕРИОЗИНИНГ ТАРҚАЛИШИ, ДИАГНОЗИ, ДАВОЛАШ ВА ОЛДИНИ ОЛИШ. *RESEARCH AND EDUCATION*, 1(9), 245-249.
56. Хушназаров, А., Хабибулаев, С. Л., Рахматова, У., Орлова, Г. И., Толибова, Ф. Т., & Хушназарова, М. И. (2022). Защита кроликоферм от эмериоза. *in Library*, 22(2), 5-8.
57. Хушназаров, А., Хабибулаев, С. Л., Рахматова, У., Орлова, Г. И., Толибова, Ф. Т., & Хушназарова, М. И. (2022). Защита кроликоферм от эмериоза. *in Library*, 22(2), 5-8.
58. Хушназаров, А., Урокова, М., & Курбонова, М. (2021). Защитим кроликов от эмерий. *in Library*, 21(1), 44-47.
59. Хушназаров, А. Х., Урокова, М., & Курбонова, М. И. (2021). Quyonglar eumeriozi va uni oldini olish. *Library*, 21(2), 126-129.
60. Хушназаров, А., Урокова, М., & Курбонова, М. (2021). Защитим кроликов от эмерий. *in Library*, 21(1), 44-47.
61. Хушназаров, А. Х., Урокова, М., & Курбонова, М. И. (2021). Rabbits are eumeriosis and its prevention. *Library*, 21(2), 126-129.
62. Хушназаров, А. Х., Урокова, М., & Курбонова, М. И. (2021). Эмериоз кроликов и его профилактика. *in Library*, 21(2), 126-129.
63. Хушназаров, А., & Муртозаев, Н. (2020). Цистицеркоз билан касалланишни камайтиришнинг замонавий тамойиллари. *in Library*, 20(4), 20-21.

BOSHLANG'ICH TA'LIMDA INNAVATSION TEXNOLOGIYALAR

Rahmatov Bobomurod

*Navoiy viloyati Nurota tumani 17- umumiy o'rta ta'lim
maktabining boshlang'ich sinf o'qituvchisi*

Annotatsiya: Mazkur maqolada boshlang'ich sinflarda ta'lim sifatini oshirishda hozirgi zamon talablari, boshlang'ich sinflar o'qituvchisining faoliyati, AKT sohasida salohiyatga ega bo'lishi, Pedagogik texnologiyalar asosida tashkil etilgan darslar tashkiliy usullari haqida qisqacha ma'lumotlar berilgan.

Kalit so'zlar; AKT, pedagogik, interfaol, texnologik xarita, model chizmasi.

Annotation: This article provides a brief overview of modern requirements for improving the quality of education in primary school, the work of primary school teachers, ICT capacity, methods of organizing lessons based on pedagogical technologies.

Keywords; ICT, pedagogical, interactive, technological map, model drawing.

Аннотация: В данной статье представлен краткий обзор современных требований к повышению качества образования в начальной школе, работы учителей начальных классов, ИКТ-потенциала, методов организации уроков на основе педагогических технологий.

Ключевые слова; ИКТ, педагогическая, интерактивная, технологическая карта, рисование моделей.

KIRISH

Boshlang'ich ta'lim umumiy o'rta ta'limning asosiy poydevori, o'quvchilarning kelajakda komil inson bo'lib voyaga yetishini ta'minlovchi muhim bosqich hisoblanadi.

Yurtimizda boshlang'ich ta'limni rivojlantirish borasida qator yutuqlarga erishildi. Jumladan, boshlang'ich ta'lim bosqichi uchun zamon talablariga javob beradigan yangi davlat ta'lim standartlari, o'quv dasturi, shu jumladan, darsliklarning multimedia ilovalari, darsliklar va o'quv qo'llanmalari ishlab chiqilib, amaliyotga joriy etildi. Ilg'or pedagogik texnologiyalar va o'qitishning interfaol usullaridan keng foydalanilmoqda.

ADABIYOTLAR VA METADOLOGIYA

Boshlang'ich sinflar o'qituvchisining faoliyati eng avvalo, jajji o'quvchi-bolajonlarni ta'lim muhitiga moslashtirish bo'lib hisoblanadi. Ularda o'qish jarayoniga qiziqish hamda zamonaviy o'quvchilarga zarur bo'lgan xususiyatlarni shakllantirish, ta'lim jarayonining o'ziga xos jihatlari bilan tanishtirish birinchi o'qituvchining vazifasi bo'lib hisoblanadi. Hozirgi davr boshlang'ich sinflar o'qituvchisi o'quvchi-bolalarni zamonaviy axborot jamiyati sharoitlarida o'qitish, ta'lim va tarbiya berish,

ularga dastlabki bilimlarni zamon ruhiga muvofiq ravishda, yetkazib bera bilishi zarur. O'qitishning asosiy maqsadi — o'quvchi bolalarning bilimlarni o'zlashtirish hamda ta'lim jarayonida olgan axborotlardan amaliy foydalanish jarayonlarini ham anglab borishga o'rgatishdan iborat.

NATIJA VA MUHOKAMA

Boshlang'ich ta'lim jarayoni o'qituvchilari zamon talabiga mos dars o'tishlari uchun AKT sohasida salohiyatga ega bo'lishlari zarur. Bu hozirgi davrda uzluksiz ta'lim tizimining dolzarb vazifalaridan biridir. Umumiy ma'noda axborot-kommunikatsiya texnologiyalari sohasidagi salohiyati tushunchasida insonning AKT savodxonligi, ya'ni kundalik hayotida ham, kasbiy faoliyatida ham undan to'g'ri foydalana olish qobiliyati nazarda tutiladi.

Pedagogning AKT sohasidagi bilimlari salohiyati ularning ushbu sohada malaka oshirishlari orqali amalga oshiriladi. Boshlang'ich sinflar o'qituvchilari muntazam ravishda, AKT bo'yicha malaka oshirishlari, shuningdek, zamonaviy ta'lim tizimi talablariga muvofiq bo'lish uchun mustaqil ta'lim orqali ham o'z bilimlarini oshirishlari zarur. Bundan tashqari, o'qituvchilar Internet vositasida turli ilmiy-amaliy konferensiyalar, seminarlar materiallaridan foydalanishlari, hamkorlar bilan tajriba almashish maqsadida hozirgi davrda kengayib borayotgan o'qituvchilar forumlaridan foydalanishlari ham foydadan holi bo'lmaydi.

Pedagogik texnologiyalar asosida tashkil etilgan darslar tashkiliy usullari, o'tkazish metodlariga ko'ra o'quvchi ehtiyojiga mos tushishi kerak. Chunki bunday darslar bola ruhiyatiga yaqinroq bo'ladi. O'quvchilarning o'quv materiallarini o'zlashtirishga bo'lgan qiziqish, xohish va istaklarini qo'zg'otish asosida maqsadga erishish motivatsiya bo'lib, bu o'qituvchi va o'quvchilarning o'zaro ichki yaqinlashuvidir.

Boshlang'ich sinfda ta'lim jarayonida o'quvchilarning o'qish motivini rivojlantirish katta ahamiyatga ega. Chunki motiv o'quvchilarni ta'lim jarayoniga qiziqtiradi, darsga faol qatnashishga, bilimlarni egallashga undaydi. Interfaol metodlar o'qish motivini rivojlantirishga katta yordam beradi.

Boshlang'ich sinflarda ko'proq bolalarning yoshini, bilim saviyasini hisobga olish lozimligini unutmaslik kerak. Ularga oddiy, oson va vaqt kam sarflanadigan o'yin mashqlardan foydalanib, darslar o'tish yaxshi samara beradi. Ko'proq atrof-muhit bilan bog'lab o'tilgan mashg'ulotlar bolalar ongini, dunyoqarashini, erkin fikrlash, bayon etish qobiliyatini, mustaqil ishlash ko'nikmasini rivojlantiradi.

Innovatsion texnologiyalardan dars jarayonida foydalanishning o'ziga xosligi shundaki, ular o'qituvchi va o'quvchilarning birgalikdagi faoliyati orqali amalga oshiriladi. O'qitish jarayoni o'qituvchi hamda o'quvchilar faoliyatini o'z ichiga oladi. O'qituvchining faoliyati o'quv materialini bayon qilish, o'quvchilarning fanga bo'lgan qiziqishini orttirish, fikrini teranlashtirish va e'tiqodini shakllantirish, o'quvchilarning mustaqil mashg'ulotlariga rahbarlik qilish, ularning bilim, ko'nikma va malakalarini

tekshirish hamda baholashdan iborat. O'z ishiga ixlos bilan qaragan o'qituvchida chinakkam ehtiros bo'ladi.

Darsning oldindan loyihasi, ya'ni texnologik xaritasi tuziladi. Texnologik xarita tuzish uchun o'qituvchi darsning har bir bosqichida amalga oshiriladigan ishlar, ularda o'qituvchining pedagogik va o'quvchilarning o'quv bilish faoliyatini tashkil etish, boshqarish va faollashtirish yo'llari, teskari aloqani amalga oshirish, ularga ajratilgan vaqtni aniq belgilash lozim. Texnologik xaritada albatta tashkiliy qism, yangi mavzuning motivatsiyasi, o'quvchilar bilimini tekshirish, yangi mavzuni o'rganish va uni mustahkamlash, erishilgan natijalarni tahlil qilish va yakun yasash kabi bosqichlari bo'ladi. Bunda o'qituvchi va o'quvchining dars davomida bajaradigan ishlari bosqichma-bosqich qayd etiladi. Dars texnologik xaritasining mukammal tuzilishi, maqsad va vazifalarini amalga oshirish, samaradorlikka erishish va bosqichlar o'rtasidagi uzviylikni ta'minlash, vaqtdan unumli foydalanish imkonini beradi.

“Baliq skeleti” texnologiyasi

Ushbu texnologiya baliq model chizmasi orqali namoyish etilib, bunda o'quvchilar o'rtaga tashlangan muammoni har tomonlama ochib berishga harakat qiladilar. Baliq skeleti chizmasi vatmanga chizilib uning tepa qismiga yechilishi kerak bo'lgan muammo yoziladi. Pastki qismiga muammoni hal etilish yo'llari yozib boriladi. Masalan, yo'l harakati darslarida “Yo'l qoidalari” mavzusida “Svetofor nima uchun kerak?” muammosi qo'yilsa, bolalar o'z fikrlari bilan baliq skeletini boyitib boradilar.

Ushbu texnologiya ona tili, o'qish darslarida o'tilayotgan mavzu haqida o'z fikriga ega bo'lish, matn bilan ishlash, o'rganilgan materialni yodida saqlash, so'zlab berish, fikrini erkin holda bayon etish, hamda dars mobaynida o'qituvchi tomonidan barcha o'quvchilarni baholay olishga qaratilgan metodlardan biridir.

XULOSA

Xulosa qilib aytganda, innovatsion texnologiyalardan foydalanib, o'tilgan darsda o'quvchilar o'z qobiliyati va imkoniyatlarini namoyish qilishga erishadilar, jamoa bilan ishlash malakasiga ega bo'ladilar, o'z g'alar fikrini hurmat qilishni o'rganadilar. Bu esa, darsning samaradorligini oshirib, ta'lim sifatini kafolatlashga xizmat qiladi.

FOYDALANILGAN ADABIYOTLAR:

- “Barkamol avlod yili” Davlat Dasturi. – T.: O'zbekiston, 2010.
- O'zbekiston Respublikasining “Ta'lim to'g'risida”gi Qonuni Barkamol avlod – O'zbekiston taraqqiyotining poydevori.- T.: “Sharq”, 1998
- Abduqodirov A.A., Begmatova N.X. Maktabgacha ta'lim muassasalarida multimedia texnologiyasidan foydalanish uslubi (o'quv-uslubiy qo'llanma). – Qarshi: Nasaf, 2011.
- Alimov N. Maktabgacha yoshdagi bolalarni matematik ta'limga tayyorlash . Maktabgacha ta'lim. – T., 2005.
 - Axmedova M. Maktabgacha yoshdagi bolalarning o'zlashtirish darajasini aniqlash va tahlil qilish . Bola shaxsini rivojlantirishning dolzarb muammolari mavzusidagi II xalqaro anjuman. – T.: 2008.

THE IMPORTANCE OF USING INNOVATION AND PEDAGOGICAL TECHNOLOGIES IN TEACHING THE UZBEK LANGUAGE

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Abstract: In this article, modern, innovative, interdisciplinary methods and various pedagogical technologies aimed at improving the quality of education, which are currently used in the teaching of philology or other subjects, are mentioned.

Keywords: interactive, pedagogical, innovative, ORES technology, method, individual, thinking, reinforcing, logical.

A.I. Prigogine understands innovation as purposeful changes that introduce a new, relatively stable element to a specific social unit - organization, population, society, group. This is an innovator's activity.

Innovative technologies are the introduction of innovations and changes to the pedagogical process and teacher and student activities, and mainly interactive methods are fully used in its implementation.

Interactive methods are the so-called collective thinking, that is, the methods of pedagogical influence are a component of the educational content. The uniqueness of these methods is that they are implemented only through the joint activity of pedagogues and students.

Such a process of pedagogical cooperation has its own characteristics, which include:

- To force the student not to be indifferent during the lesson, to think independently, create and search;
- Ensuring that students are constantly interested in knowledge during the educational process;
- The student should strengthen the student's interest in knowledge by independently approaching each issue creatively;
- Organization of always cooperative activities of the teacher and the student.

Researchers (A.L. Prigozhin, B.V. Sazonov, V.S. Tolstoy, A.G. Kruglikov, A.S. Axiezer, N.P. Stepanov, etc.) distinguish two approaches to studying the components of innovation processes: the individual microlevel of innovation and the microlevel of the interaction of individually introduced innovations.

In the first approach, some new idea introduced to life is highlighted. In the second approach, the interaction of new ones introduced separately, their unity, competition and, as a result, the replacement of one by another. Scientists distinguish the concept

of periodicity of life when analyzing the microstructure of the innovation process. This concept stems from the fact that innovation is a measurable process.

The innovative technology and methods used in the education system are of great importance in helping the students to achieve high levels of knowledge and to have their own personal and independent views. Each teacher should carefully study and research every element of the innovative pedagogical technologies used in the lesson before starting the lesson.

Currently, the main pedagogical technologies are empirical, cognitive, heuristic, creative, inversion, adaptive, inclusive and other technologies. It depends on the skill of the teacher to be able to choose these technologies during the lesson.

ORES technology is used to solve controversial issues, conduct debates or at the end of a training seminar (in order to find out the opinions of students about the training seminar) or after studying a section based on the curriculum can be used because this technology allows students to defend their opinion, think independently and freely, express their opinion to others in a reasonable way, openly argue, and at the same time, the knowledge acquired by students in the educational process it teaches students to analyze, to assess their level of mastery, and to develop a culture of debate.

This technology helps students to clearly and succinctly express their opinions on a simple piece of paper that is distributed, and to state supporting or counter-arguments.

Transfer technology. This technology is carried out in several stages:

Step 1:

- the teacher, together with the students, determines the topic of the debate or the problem to be discussed or the studied section;
- the teacher informs the students that first each student will work individually, then work in small groups, and finally, at the end of the lesson, they will work as a team;
- during the lesson, it is mentioned that every student can fully express his opinion freely.

Step 2:

- papers with 4 stages of ORES technology are distributed to each student:
 - O (express your opinion);
 - R (give reasons for your statement of opinion);
 - E (give an example (evidence) to prove your stated reason);
 - S (summarize your opinion).
- Each student fills in the 4 stages of the ORES on the distributed paper individually, expressing their thoughts in writing.

Step 3:

- after each student has completed their paper, the teacher asks them to break into small groups or he/she divides the students into small groups using different grouping methods sends;

- the teacher distributes to each group papers in the format of 4 stages of ORES technology;
- the teacher offers small groups to summarize the ideas and arguments in the papers written by each of them in a large format and write them in 4 stages.

Step 4:

- in small groups, each student first introduces the group members with his/her thoughts on each stage. After studying all the opinions of the group members, the members of the small group begin to summarize them;
- group members summarize the 4 stages of ORES and prepare for its defense;
- each student can defend and prove his/her opinion during the summarization of ideas.

Step 5:

- small groups defend the generalized opinions: the representative of the group reads each step separately (without commenting as much as possible). It can prove certain sections, that is, tell why the group came to this opinion.

Step 6:

- the teacher concludes the lesson, expresses his reaction to the expressed opinions;
- turns to students with the following questions:
 - a) What did you learn and what did you learn from this lesson?
 - b) What was the effect of this lesson?
 - c) What qualities does this topic nurture in students, what does it shape, what qualities does it develop?

EXPLANATION: The above questions can be asked by the teacher to the students based on the content and purpose of each lesson.

For example:

Topic: The participle is the meaningful center of the sentence.

O (express your opinion);

The main part that forms the meaningful center of the sentence and unites other parts around it, expressing the meanings of affirmative-negative, person-number, tense and mood is called participle.

R (Give a reason for your opinion statement): Since the clause forms the meaningful center of the sentence, it is possible to form a sentence through the clause without the participation of other clauses.

E (Give an example explaining (proving) the stated reason): Coming. We will go.

S (Summarize your idea): The above word forms a sentence. If there is no participle in the sentence, the sentence has no meaning. The words "we are coming" and "we are going" are the meaningful center of the sentence. The word coming represents the present tense. "We will go" is expressed in the future tense. In conclusion, it can be noted that in the process of teaching students are treated as

individuals, the use of various pedagogical technologies and modern methods directs them to independent, free thinking, research, creative approach to every issue, most importantly, strengthens their interest in studying and science.

Achieving such a result in practice requires the use of innovative and information technologies in the educational process. They are very different. Current modern methods or technological lessons that help to increase the effectiveness of teaching help to form logical, intellectual, positive, critical, independent thinking in students, educate positive qualities and develop their abilities.

REFERENCES

1. Shaikhislamov N. (2021). Issues of speech development of students in mother language and literature lessons. The 21st Century Skills for Professional Activity, (6), pp. 160-162. (in Uzbek)
2. Kasimova K., Matchonov S. "Methodology of mother tongue teaching". (in Uzbek)
3. Mahmudov N. Culture of teacher's speech. - Tashkent-2009. (in Uzbek)
4. Yoldoshev J. Advanced pedagogical technology. - Tashkent, Science-2004. (in Uzbek)
5. Hamidov A. New pedagogical technologies. - Tashkent-2004. (in Uzbek)
6. G.N. Narimonova. Psycholinguistics as a tool for in-depth study of speech and language. *Science and Education*. Volume 3, Issue 2, pp.546-550 (2022)
7. G.N. Narimonova. External laws of language development. Scientific bulletin of gifted students of NamSU. Volume 1, Issue 1, pp. 215-218 (2023)(in Russian)
8. Gulnoza Narimonova. Key trends in the development of the Russian literary language. *Eurasian Journal of Academic Research*. Volume 2, Issue 6, pp. 544-546 (2022) (in Russian)
9. Gulnoza Narimonova. Changes in the Russian Language in the Modern Period and Language Policy. *Texas Journal of Philology, Culture and History*. Volume 25, pp.40-43 (2023).
10. Gulnoza Narimonova. Modern Information Technologies in Teaching the Russian Language. *Journal of Pedagogical Inventions and Practices*. Volume 27, pp.3-5 (2023)
11. S. Abdullayeva, G. Narimonova. External laws of language development. *Proceedings of International Educators Conference*. Volume 2, Issue 3, pp.59-62 (2023)
12. R.G. Rakhimov. Clean the cotton from small impurities and establish optimal parameters. *The Peerian Journal*. Vol.17, pp.57-63 (2023).
13. F.G. Uzoqov, R.G. Rakhimov. Determining the hardness coefficient of the sewing-knitting machine needle. DGU 23281. 15.03.2023
14. F.G. Uzoqov, R.G. Rakhimov. Movement in a vibrating cotton seed sorter. DGU 22810. 03.03.2023

15. F.G. Uzoqov, R.G. Rakhimov. Calculation of cutting modes by milling. DGU 22812. 03.03.2023
16. F.G. Uzoqov, R.G. Rakhimov. The program "Creation of an online platform of food sales". DGU 22388. 22.02.2023
17. N.D. Nuritdinov, M.N. O'rmonov, R.G. Rahimov. Creating special neural network layers using the Spatial Transformer Network model of MatLAB software and using spatial transformation. DGU 19882. 03.12.2023
18. F.G. Uzoqov, R.G. Rakhimov, S.Sh. Ro'zimatov. Online monitoring of education through software. DGU 18782. 22.10.2022
19. F.G. Uzoqov, R.G. Rakhimov. Electronic textbook on "Mechanical engineering technology". DGU 14725. 24.02.2022
20. F.G. Uzoqov, R.G. Rakhimov. "Calculation of gear geometry with cylindrical evolutionary transmission" program. DGU 14192. 14.01.2022
21. R.G. Rakhimov. On the advantages of innovative and pedagogical approaches in the educational system. Scientific Bulletin of NamSU. Special issue. 2020 (*in Uzbek*)
22. R.G. Rakhimov. The advantages of innovative and pedagogical approaches in the education system. Scientific-technical journal of NamIET. Vol.5, Iss.3, pp.292-296. 2020
23. U.I. Erkaboev, G. Gulyamov, J.I. Mirzaev, R.G. Rakhimov, N.A. Sayidov, Calculation of the Fermi–Dirac Function Distribution in Two-Dimensional Semiconductor Materials at High Temperatures and Weak Magnetic Fields, Nano. **16**(9), Article No 2150102 (2021)
24. G. Gulyamov, U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, N.A. Sayidov, Determination of the dependence of the two-dimensional combined density of states on external factors in quantum-dimensional heterostructures, Modern Physics Letters B, **37**(10), Article No 2350015 (2023)
25. G. Gulyamov, U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, On Temperature Dependence of Longitudinal Electrical Conductivity Oscillations in Narrow-gap Electronic Semiconductors, Journal of Nano- and Electronic Physics, **12**(3), Article No 03012 (2020)
26. U.I. Erkaboev, U.M. Negmatov, R.G. Rakhimov, J.I. Mirzaev, N.A. Sayidov, Influence of a quantizing magnetic field on the Fermi energy oscillations in two-dimensional semiconductors, International Journal of Applied Science and Engineering, **19**(2), Article No 2021123 (2022)
27. U. Erkaboev, R. Rakhimov, J. Mirzaev, N. Sayidov, U. Negmatov, M. Abduxalimov, Calculation of oscillations in the density of energy states in heterostructural materials with quantum wells, AIP Conference Proceedings, **2789**(1), Article No 040055 (2023)

28. U. Erkaboev, R. Rakhimov, J. Mirzaev, N. Sayidov, U. Negmatov, A. Mashrapov, Determination of the band gap of heterostructural materials with quantum wells at strong magnetic field and high temperature, *AIP Conference Proceedings*, **2789**(1), Article No 040056 (2023)
29. U. Erkaboev, R. Rakhimov, J. Mirzaev, U. Negmatov, N. Sayidov, Influence of the two-dimensional density of states on the temperature dependence of the electrical conductivity oscillations in heterostructures with quantum wells, *International Journal of Modern Physics B*. (2023). <https://doi.org/10.1142/S0217979224501856>
30. U.I. Erkaboev, R.G. Rakhimov, Determination of the Dependence of Transverse Electrical Conductivity and Magnetoresistance Oscillations on Temperature in Heterostructures Based on Quantum Wells, *e-Journal of Surface Science and Nanotechnology*, (2023). <https://doi.org/10.1380/ejsnt.2023-070>
31. U.I. Erkaboev, N.A. Sayidov, R.G. Rakhimov, U.M. Negmatov, Simulation of the temperature dependence of the quantum oscillations' effects in 2D semiconductor materials, *Euroasian Journal of Semiconductors Science and Engineering*. **3**(1), pp.47-55 (2021)
32. U.I. Erkaboev, G. Gulyamov, J.I. Mirzaev, R.G. Rakhimov, Modeling on the temperature dependence of the magnetic susceptibility and electrical conductivity oscillations in narrow-gap semiconductors, *International Journal of Modern Physics B*. **34**(7), Article No 2050052 (2020)
33. G. Gulyamov, U.I. Erkaboev, N.A. Sayidov, R.G. Rakhimov, The influence of temperature on magnetic quantum effects in semiconductor structures, *Journal of Applied Science and Engineering*, **23**(3), pp.453-460 (2020)
34. R. Rakhimov, U. Erkaboev, Modeling of Shubnikov-de Haas oscillations in narrow band gap semiconductors under the effect of temperature and microwave field, *Scientific and Technical Journal of Namangan Institute of Engineering and Technology*, 2(11), pp.27-35 (2020)
35. U.I. Erkaboev, R.G. Rakhimov, N.A. Sayidov, Mathematical modeling determination coefficient of magneto-optical absorption in semiconductors in presence of external pressure and temperature, *Modern Physics Letters B*, **35**(17), Article No 2150293 (2021)
36. U.I. Erkaboev, R.G. Rakhimov, N.Y. Azimova, Determination of oscillations of the density of energy states in nanoscale semiconductor materials at different temperatures and quantizing magnetic fields, *Global Scientific Review*, **12**, pp.33-49 (2023)
37. U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, N.A. Sayidov, The Influence of External Factors on Quantum Magnetic Effects in Electronic Semiconductor Structures, *International Journal of Innovative Technology and Exploring Engineering*, **9**(5), pp.1557-1563 (2021)

38. U.I. Erkaboev, R.G. Rakhimov, Determination of the dependence of the oscillation of transverse electrical conductivity and magnetoresistance on temperature in heterostructures based on quantum wells, *East European Journal of Physics*, **3**, pp.133-145 (2023)
39. U.I. Erkaboev, R.G. Rakhimov, Simulation of temperature dependence of oscillations of longitudinal magnetoresistance in nanoelectronic semiconductor materials, *e-Prime - Advances in Electrical Engineering, Electronics and Energy*, **3**, Article No 100236 (2023)
40. U.I. Erkaboev, G. Gulyamov, R.G. Rakhimov, A new method for determining the bandgap in semiconductors in presence of external action taking into account lattice vibrations, *Indian Journal of Physics*, **96**(8), pp.2359-2368 (2022)
41. U.I. Erkaboev, R.G. Rakhimov, N.A. Sayidov, J.I.Mirzaev, Modeling the temperature dependence of the density oscillation of energy states in two-dimensional electronic gases under the impact of a longitudinal and transversal quantum magnetic fields, *Indian Journal of Physics*, **97**(4), pp.1061–1070 (2023)
42. U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, U.M. Negmatov, N.A. Sayidov, Influence of a magnetic field and temperature on the oscillations of the combined density of states in two-dimensional semiconductor materials, *Indian Journal of Physics*, **98**(1), pp.189-197 (2024)
43. U.I. Erkaboev, N.A. Sayidov, U.M. Negmatov, J.I. Mirzaev, R.G. Rakhimov, Influence temperature and strong magnetic field on oscillations of density of energy states in heterostructures with quantum wells HgCdTe/CdHgTe, *E3S Web of Conferences*, **401**, Article No 01090 (2023)
44. U.I. Erkaboev, N.A. Sayidov, U.M. Negmatov, R.G. Rakhimov, J.I. Mirzaev, Temperature dependence of width band gap in $\text{In}_x\text{Ga}_{1-x}\text{As}$ quantum well in presence of transverse strong magnetic field, *E3S Web of Conferences*, **401**, Article No 04042 (2023)
45. U.I. Erkaboev, R.G. Rakhimov, U.M. Negmatov, N.A. Sayidov, J.I. Mirzaev, Influence of a strong magnetic field on the temperature dependence of the two-dimensional combined density of states in InGaN/GaN quantum well heterostructures, *Romanian Journal of Physics*, **68**, Article No 614 (2023)
46. R.G. Rakhimov, Determination magnetic quantum effects in semiconductors at different temperatures, VII International Scientific and Practical Conference “Science and Education: problems and innovations”, February 12, pp.12-15 (2021)
47. G. Gulyamov, U.I. Erkaboev, R.G. Rakhimov, N.S. Sayidov, J.I.Mirzaev, Influence of a strong magnetic field on Fermi energy oscillations in two-dimensional semiconductor materials, *Scientific Bull., Phys. and Mathematical Res.* 3(1), Article No 2 (2021)
48. U.I. Erkaboev, R.G. Rakhimov, N.A. Sayidov, Influence of pressure on Landau levels of electrons in the conductivity zone with the parabolic dispersion law,

Euroasian Journal of Semiconductors Science and Engineering, 2(1), pp.27-33 (2020)

49. R. Rakhimov, U. Erkaboev, Modeling the influence of temperature on electron Landau levels in semiconductors, Scientific and Technical Journal of Namangan Institute of Engineering and Technology, 2(12), pp. 36-42 (2020)
50. R.G. Rakhimov, Clean the cotton from small impurities and establish optimal parameters, The Peerian Journal, 17, pp.57–63 (2023)
51. U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, N.A. Sayidov, U.M. Negmatov, Calculation of oscillations of the density of energy states in heteronanostructured materials in the presence of a longitudinal and transverse strong magnetic field, International conferences “Scientific foundations of the use of new level information technologies and modern problems of automation”, pp.341-344 (2022) (*in Russian*)
52. U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, N.A. Sayidov, U.M. Negmatov, Calculations of the temperature dependence of the energy spectrum of electrons and holes in the allowed zone of a quantum well under the influence of a transverse quantizing magnetic field, International conferences “Scientific foundations of the use of new level information technologies and modern problems of automation”, pp.344-347 (2022) (*in Russian*)
53. U.I. Erkaboev, N.A. Sayidov, J.I. Mirzaev, R.G. Rakhimov, Determination of the temperature dependence of the Fermi energy oscillations in nanostructured semiconductor materials in the presence of a quantizing magnetic field, Euroasian Journal of Semiconductors Science and Engineering, 3(2), pp.47-52 (2021)
54. U.I. Erkaboev, U.M. Negmatov, J.I. Mirzaev, N.A. Sayidov, R.G. Rakhimov, Modeling the Temperature Dependence of the Density Oscillation of Energy States in Two-dimensional Electronic Gases Under the Impact of a Longitudinal and Transversal Quantum Magnetic Field, Acta Scientific Applied Physics, 2(3), pp.12-21 (2022)

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