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**POSTOPERATIVE COMPLICATIONS IN DISSEMINATED PERITONITIS
AND FACTORS OF THEIR DEVELOPMENT**Rakhimov Oybek Umarovich dr.oybek1984@gmail.com<https://orcid.org/0000-0003-3569-6688>*Tashkent State Medical University*

Annotation. A retrospective analysis of the complication structure in 175 patients with peritonitis was performed depending on the method of surgical treatment. It was found that true laparostomy is accompanied by the maximum risk of wound edge retraction (71.4%), nosocomial infection (76.2%), and general complications. "Semi-open" staged sanitation of the abdominal cavity reduces the risk of purulent wound complications by 2.5–2.9 times ($F = 0.025$), acute respiratory failure — by 1.8 times ($F = 0.277$), moderately increasing the risk of nosocomial infection. "Semi-closed" treatment method is associated with a high risk of wound suppuration and respiratory failure.

Key words: *generalized peritonitis, postoperative complications, laparotomy, staged sanitation of the abdominal cavity.*

Relevance. Generalized peritonitis (GP) remains one of the most severe and life-threatening forms of acute surgical disease of the abdominal organs (1,3,5). It is characterized by a pronounced systemic inflammatory response, rapid progression to MOF and a high level of postoperative mortality, which still reaches 20-60% [1,2,5,9,11,15,16]. In 1976, Prof. W. Wagner wrote: "I and my generation of doctors were brought up in fear of God and peritonitis." According to Prof. V.N. Shamov, (1937): "The problem of peritonitis has not been solved by modern surgeons in many respects and continues to snatch one victim after another from surgical institutions" [2,4,6,8]. In the review article [1] it is noted that peritonitis, as one of the most formidable complications of many diseases and operations on abdominal organs, has occupied a leading place in the structure of surgical mortality for many years. According to published summary data, the average mortality rate is maintained at the level of 20-30%, reaching the highest figures (up to 50% and more) in postoperative peritonitis and peritonitis accompanied by the development of multi-organ life expectancy after abdominal sepsis is on average about 5 years. 8-10 years after seemingly successful treatment of widespread peritonitis complicated by sepsis, up to

82% of patients die [1,8,10,12]. Any operation, in essence, is additional programmed stress, negatively affecting the patient's body.

Existing methods for assessing the severity of the condition and prognosis (APACHE II, SOFA, MPI, etc.) are based mainly on clinical and laboratory parameters and do not take into account the patient's immunological profile [1,13,14]. Inclusion of immunological markers in the prognosis system allows for more accurate identification of risk patients and personalization of treatment tactics.

The problem of prognosis and prevention of postoperative complications in patients with generalized peritonitis requires an integrated approach, including the assessment of immunological markers, the development of prognostic models and scientifically based implementation of immunocorrection methods. This direction is relevant both from the point of view of fundamental scientific developments in the field of immunopathogenesis of critical conditions, and from the position of practical surgery aimed at reducing mortality and improving the quality of treatment.

Objective of the study. Development of predictors of postoperative complications of widespread peritonitis.

Material and methods. Of the total number of patients included in the control group ($n = 58$), 38 patients (65.5%) had some postoperative complications of RP in the POP. In the remaining 20 patients (34.5%), the course of POP can be characterized as relatively favorable, without the development of complications requiring additional intervention or intensive care.

Results and discussion. The most common were intra-abdominal abscesses and leaks, detected in 15 patients (39.5%). Such complications, as a rule, developed against the background of inadequate sanitation or ongoing persistence of infection in limited areas of the abdominal cavity. A 45-year-old woman, operated on for perforation of a sigmoid colon tumor, had a clinical picture of localized peritonitis with tension in the left iliac region on the 7th day. According to ultrasound data, an interintestinal abscess measuring 6×4 cm was detected, confirmed during a repeat laparotomy.

Early postoperative peritonitis within 72 hours after the intervention was diagnosed in 12 patients (31.6%). This type of complication is especially typical for patients admitted at late stages of inflammation and with pronounced microbial contamination. In a 26-year-old man who had previously suffered a stab wound with a penetrating injury to the jejunum, signs of intoxication and tachycardia increased during the first day after the operation, and during revision of the abdominal cavity, a relapse of purulent RP with abundant serous-purulent contents was confirmed. Suppuration of the postoperative wound occurred in 9 patients (23.7%). Most often, this complication was recorded in patients with obesity and diabetes. Thus, a 59-year-old woman with a BMI

of 38 kg/m² and chronic hyperglycemia against the background of ODC developed a wound infection on the 5th day after cholecystectomy, requiring opening and secondary intention.

Intestinal anastomotic leakage was recorded in 7 patients (18.4%), mainly after resection due to tumor or ischemic damage. In one case, a 72-year-old man after subtotal resection of the colon with the imposition of a colorectal anastomosis, on the 4th day, clinical RP with purulent discharge from the drains developed. During an emergency revision, leakage was confirmed, a repeated resection with the formation of a colostomy was performed.

Intra-abdominal bleeding was noted in 4 patients (10.5%), mainly in the first 24 hours after the intervention. A 67-year-old patient with liver cirrhosis and coagulopathy developed increasing hypotension and decreased hemoglobin after sanitation of purulent RP due to pancreatic necrosis 12 hours later. During relaparotomy, bleeding from the mesenteric vessel was detected, which was eliminated by suturing. Early adhesive intestinal obstruction was detected in 5 patients (13.2%) within 5 to 12 days after surgery. These patients were characterized by the presence of massive fibrinous effusion, multiple manipulations on the intestine and mesenteric edema. Thus, a 48-year-old patient after appendectomy due to phlegmonous appendicitis with abscess formation developed clinical symptoms of high intestinal obstruction on the 10th day, requiring adhesiolysis. Perforation of the remaining intestinal segment was detected in 3 patients (7.9%), mainly with unrecognized foci of ischemia or with a progressive tumor process. One of these cases was observed in a man with extensive OTMS, where the necrotic zone was not fully visualized at the first stage of the intervention. Eventration of intestinal loops was recorded in 2 cases (5.3%). Both patients had concomitant exhaustion, hypoalbuminemia, and anterior abdominal wall failure. In one case, eventration occurred during straining during coughing on the 6th day, requiring urgent repositioning and mesh plasty.

In the control group with complicated POP, only 102 systemic complications were registered, which amounted to an average of 2.68 complications per 1 patient, i.e. more than one and a half times higher than the number of peritoneal complications. At the same time, only 11 patients (28.9%) had the only systemic complication, and the remaining patients had 2-4 disorders, which emphasizes the pronounced systemic destabilization. The most common systemic complication was prolonged SIRS, which persisted for more than 72 hours, which was observed in 16 patients (42.1%). A 58-year-old man with fecal RP after perforation of a colon tumor against the background of the toxic phase of inflammation already on the 2nd day after the operation, fever up to 39.2 ° C, tachycardia, leukocytosis $> 18 \times 10^9 / l$ and pronounced CRP were

observed, despite adequate antibacterial therapy. The patient followed all recommendations, but systemic inflammation persisted for up to 6 days, which led to the development of nosocomial pneumonia. Hospital-acquired pneumonia was registered in 14 patients (36.8%). In most cases, it was lower lobe infiltrates that developed against the background of hypodynamia and impaired mucociliary clearance. A 65-year-old woman with musculoskeletal disorder and purulent RP, from the 4th day of PRP, had an increase in temperature, dyspnea, and X-ray data revealed infiltration of S7-S10 on the right. Despite adequate sanitation of the abdominal cavity, therapy with cefepime and moxifloxacin was required with gradual improvement. Nosocomial pneumonia was diagnosed in 12 patients (31.6%) and was, as a rule, the final stage of progressive systemic inflammation. A 61-year-old man with necrotizing pancreatic necrosis with RP developed a classic picture of MOF with impaired respiratory, renal, and cardiovascular function on the 5th day of POP, which required transfer to the ICU for appropriate therapy for 9 days.

Sepsis was diagnosed in 10 patients (26.3%), and in 8 of them (21.1%) in the form of TS. In 5 cases (13.2%), the clinical picture progressed to SS with the need for vasopressor support. In an elderly patient, after sanitation of RP against the background of ODC, SIRS persisted for 4 days, accompanied by hypotension, confusion, and impaired microperfusion. Despite complex therapy, the outcome was fatal.

ARF developed in 9 patients (23.7%), including one patient who had previously undergone surgery against the background of hypovolemia and anemia. Diuresis less than 500 ml/day, an increase in creatinine to 300 $\mu\text{mol/l}$ and hyperkalemia required hemofiltration sessions.

Cardiovascular complications (decompensation of heart failure, atrial fibrillation attacks, ischemic episodes) were recorded in 5 patients (13.2%), mainly in older individuals with severe atherosclerosis. Thromboembolism was recorded in 6 patients (15.8%), including one case of massive embolism with a fatal outcome. A 70-year-old man with prolonged immobilization, against the background of a persistent inflammatory response, developed femoral vein thrombosis and subsequent deterioration of hemodynamics. Pleurisy and pleural empyema were observed in 4 patients (10.5%), mainly on the right. In one case, puncture and drainage of the pleural cavity was required. But neuropsychiatric disorders, including delirium, acute episodes of confusion, were observed in 6 patients (15.8%). The most typical case was a 64-year-old man, who on the 4th day of POP, against the background of hypoxia and toxicosis, showed disoriented behavior, motor agitation, which required sedation. Analysis of the clinical condition of patients in the dynamics of POP showed that on the 1st day, 20 patients (34.5%) were in the category of "no signs of complications".

All of them belonged to the subgroup of patients who underwent surgery without subsequent complicated course. On the contrary, in most patients with complicated course on the 1st day of POP, systemic and combined complications dominated, caused by severe SIRS, initial sepsis and MOF. Peritoneal complications were rarely recorded during this period. During this period, 2 patients died: one patient, 72 years old, admitted with fecal RP against the background of colon ischemia and severe cardiovascular failure, died of acute myocardial infarction 16 hours after surgery, the second case was a 67-year-old man operated on for perforation of a gastric ulcer, who developed SS against the background of initial CRF and decompensated diabetes. Despite adequate resuscitation support, the patient died within the first 24 hours. By the 4th day of POP, the structure of complications shifted: peritoneal complications began to increase (intra-abdominal abscesses, early manifestations of suture failure). The number of patients without complications remained stable, but the first patients from among those with complications earlier began to join them (another 2 people improved clinically). The number of combined complications decreased to 20.7%. During this period, 3 more fatal outcomes were recorded: a 59-year-old man with purulent pancreatic necrosis developed massive pulmonary edema and pleurisy with respiratory failure on the 3rd day of POP, ending in cardiac arrest; a 66-year-old woman with initial HF FC III against the background of SIRS and TS developed MOF; a 43-year-old patient with severe ODC died of pulmonary embolism. By the 7th day of POP, the proportion of patients without signs of complications began to increase (to 43.1%). This was due to the gradual resolution of inflammatory manifestations in previously complicated patients. However, peritoneal complications increased and reached 9 cases (15.5%), which corresponded to the typical time frame for the formation of abscesses and leaks. Systemic complications decreased, but at this stage there was a peak in mortality - 5 deaths (8.6%): one patient with repeated early RP against the background of anastomotic failure, requiring relaparotomy, which he did not undergo; 2 patients died from decompensation of renal and respiratory functions against the background of TS; 1 case of development of pleural empyema in the POP with a breakthrough into the bronchial tree, causing aspiration syndrome; 1 patient, 68 years old, died from uncontrolled wound infection with SS. On the 10th day, the number of patients without complications increased to 30 people (51.7%), while 8 patients with peritoneal and 6 with extraperitoneal complications remained. Two more fatal outcomes were recorded: in the first case, the cause was late SS, in the second, cardiac decompensation with sudden asystole developed. By the 14th day, a favorable outcome was recorded in 35 patients (60.3%), that is, they had no signs of complications. Complications persisted in a minority (5 patients with peritoneal, 4 patients with extraperitoneal, 4 patients with

combined). During this period, 2 patients with combined complications died (progressive MOF in a patient with severe purulent pancreatic necrosis and the development of delirium and concomitant respiratory failure in a patient with a long course of TS). Overall, the mortality rate was 14 patients (24.1%), and all cases had a history of severe complications (TS, shock, MOF, respiratory or cardiac disorders). None of the patients who initially had no complications died, which underlines the reliable relationship between complications and outcomes.

The presented data demonstrate the structure and severity dynamics of the course of POP in patients with RP, who were treated according to the traditional algorithm. A special role is played by early systemic disorders occurring in the first 3-5 days, and late local complications developing on the 7-14th day. It is this combination of systemic and local lesions, together with high mortality. Analysis of the clinical picture in patients of the control group with RP showed a high frequency of postoperative complications (65.5%); one or more peritoneal and/or systemic complications were recorded. The most frequent peritoneal complications were intra-abdominal abscesses, recurrent RP, anastomotic failure and early adhesive intestinal obstruction. A characteristic feature of systemic complications was multiplicity and systemicity: POP, prolonged SIRS, hospital pneumonia, TS, thromboembolic and cardiac complications. On average, there were 1.5 peritoneal and 2.68 systemic complications per patient with complicated course. Dynamic observation showed that systemic complications developed mainly in the first 1-4 days of POP and were associated with early TS, SS, homeostasis disorder, while peritoneal complications formed within 5-10 days of POP, which corresponds to the phase of local inflammation and secondary infection. Mortality in the control group reached 24.1% (14 patients out of 58), and all fatal outcomes were noted among patients with complicated course of POP. Cumulative mortality increased by 7-10 days and was most often caused by SS, MOF and severe extraperitoneal infections. Patients who did not develop complications in POP survived completely, which emphasizes the prognostic significance of early control over systemic inflammation and formation of postoperative immune response.

CONCLUSIONS:

1. Analysis of the clinical picture in patients of the control group with RP showed a high frequency of postoperative complications (65.5%), one or more peritoneal and/or systemic complications were recorded. The most frequent peritoneal complications were intra-abdominal abscesses, recurrent RP, anastomotic failure and early adhesive intestinal obstruction.
2. Dynamic observation showed that systemic complications developed mainly in the first 1-4 days of POP and were associated with early TS, SS, homeostasis disorder,

while peritoneal complications formed within 5-10 days of POP, which corresponds to the phase of local inflammation and secondary infection

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PACKAGING OF POWDERED PRODUCTS MADE FROM DRIED PUMPKIN

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Annotation. The article presents a comparative analysis of packaging methods for pumpkin powder. Vacuum packaging, modified atmosphere (MA), metallized polypropylene, polyethylene–foil laminates, and PET containers were tested. The highest efficiency was observed with MA packaging (vitamin C – 93–95%, carotenoids – 95–96%), while polyethylene–foil was considered cost-effective. Vacuum packaging preserved high biological value but showed agglomeration. Metallized polypropylene was recommended as a low-cost option, whereas PET containers accelerated vitamin and pigment loss due to light exposure.

Keywords. pumpkin powder, drying, packaging technology, vacuum packaging, modified atmosphere, metallized polypropylene, polyethylene–foil, PET container, vitamin C, carotenoids.

INTRODUCTION

In many countries around the world, pumpkin products—particularly pumpkin seed oil—are valued for their richness in essential nutrients, various vitamins, and antioxidants. This oil is well known for its broad application in the cosmetic, pharmaceutical, and food industries. Researchers in the United States, Turkey, China, and Kazakhstan are actively engaged in developing new pumpkin varieties and improving processing technologies. Such studies are aimed at creating novel cultivars, ensuring stable yield growth, and thereby enhancing the economic significance of pumpkin.

Deep processing of pumpkin, converting its raw material into diverse products, and advancing storage technologies play a crucial role in this context. Furthermore, these research efforts are of great importance in strengthening food security and highlight the growing relevance of developing innovative pumpkin-based products.

Research Aim and Objectives

The aim of this study is to develop technologies for the storage, drying, and preparation of semi-finished products from pumpkin fruits. These technologies are intended to extend the shelf life of pumpkin-based products, maintain their quality parameters, and improve the overall efficiency of processing operations.

Materials and Methods

For the experiments, the following pumpkin varieties were selected: *Ispanskaya*–73 (as control), *Kashgarskaya*–1644, *Palov Kadu*–268, *Volzhskaya Seraya*–92, *Medovaya*, *Non Kadi*, and *Kustovaya Oranzhevaya*.

Dried pumpkin powder is characterized by high biological value, being rich in vitamins (particularly ascorbic acid), minerals, carotenoids, and antioxidants. However, these bioactive compounds are highly sensitive to environmental factors such as moisture, oxygen, light exposure, and temperature fluctuations. Therefore, the choice of packaging method and material, based on scientific evaluation, is essential to ensure long-term stability of the organoleptic and biochemical properties of pumpkin powder.

In the experiments, various packaging types were evaluated, including vacuum packaging, modified atmosphere (MA) packaging, metallized polypropylene pouches, polyethylene–foil laminated films, as well as PET jars and glass containers. Each type of packaging was assessed based on its moisture absorption capacity, oxygen permeability, protection against light exposure, and mechanical stability. In vacuum packaging, air inside the package is removed and the product is sealed hermetically under reduced pressure. This method minimizes oxygen exposure and slows down oxidation processes. According to the results, pumpkin powder stored under vacuum conditions maintained a moisture level of 12–14% over 8 months, with vitamin C loss not exceeding 10%, while carotenoid retention reached 92–94%. However, the pressure inside the package sometimes caused powder agglomeration. In the MA packaging method, the internal air was replaced with inert gases (nitrogen or CO₂), eliminating oxidation reactions and reducing microbial activity. During 10 months of storage, moisture variation remained minimal ($\pm 0.5\%$), vitamin C retention reached 93–95%, and carotenoids were preserved at 95–96%. Moreover, MA packaging ensured the powder was stored without agglomeration. Metallized polypropylene pouches provided good protection due to their low permeability to moisture and oxygen. In a 6-month storage trial, vitamin C retention was around 88–90%, while carotenoids were preserved at 90–92%. However, incomplete protection against light exposure resulted in slight changes in color parameters.

Polyethylene–foil laminated films offered strong resistance to both moisture and oxygen penetration, while also providing complete protection against light. Over 8 months, vitamin C retention was 91–93% and carotenoids 94–95%. This method is also cost-effective, making it suitable for wide industrial application.

PET jars and glass containers provided strong mechanical protection, although their effectiveness against light depended on the type of glass. In dark-colored glass, vitamin C retention was 90–92% after 9 months, while in transparent glass it dropped to 86–88%. Carotenoid degradation occurred more rapidly in transparent glass, making non-light-transmitting containers preferable.

The findings can serve as a guideline for optimizing packaging technologies in industrial production. When selecting packaging types, factors such as the target market, intended storage duration, and logistical conditions should be taken into account.

Table 1. Experimental results on packaging methods of dried pumpkin powder

aging type	Storage period (months)	Moisture variation (%)	Vitamin C retention (%)	Carotenoid retention (%)	Advantages	Disadvantages
Vacuum packaging	8	±1.0	90	92–94	Minimizes oxygen exposure, slows oxidation	Risk of powder agglomeration
Modified atmosphere (MA) packaging	10	±0.5	93–95	95–96	Eliminates oxidation reactions, reduces microbial activity	Expensive equipment, complex process
Metallized polypropylene	6	±1.2	88–90	90–92	Low permeability to moisture and oxygen,	Does not fully protect from light

					cost-effective	
Polyethylene-foil laminated film	8	± 0.8	91–93	94–95	Blocks moisture and oxygen, provides full light protection	Slightly more expensive, but effective
PET jar and glass container (dark)	9	± 1.0	90–92	92–94	Strong mechanical protection, blocks light	Heavy, additional logistics cost
PET jar and glass container (transparent)	9	± 1.0	86–88	88–90	Strong mechanical protection	Poor light protection, faster vitamin and pigment loss under light exposure

The results of experiments on packaging methods of dried pumpkin powder clearly demonstrated the crucial role of packaging in controlling chemical and physical changes during storage, as well as in maintaining the organoleptic and biochemical properties of the product over extended periods. Key factors influencing the preservation of quality include the type of packaging, its permeability to gases and moisture, the degree of protection against light, mechanical strength, and technological feasibility. Therefore, in this study, six types of packaging were tested, and their advantages, disadvantages, storage duration, and efficiency in preserving vitamin C and carotenoids were comparatively analyzed.

In vacuum packaging, oxygen is almost completely removed, significantly slowing down oxidation processes. The results showed that pumpkin powder stored under vacuum for 8 months exhibited a moisture variation of about $\pm 1.0\%$, with vitamin C retention at 90% and carotenoid retention between 92–94%. The main advantage of this method is its ability to preserve antioxidant activity and color stability over a long period. However, a drawback is the tendency of particles to agglomerate under vacuum conditions, which may require additional grinding before use.

In modified atmosphere (MA) packaging, the gas composition inside the package is artificially adjusted: oxygen is reduced to minimal levels, while nitrogen or carbon dioxide concentrations are increased. This method ensured a storage period of 10 months, with minimal moisture variation ($\pm 0.5\%$), vitamin C retention of 93–95%, and carotenoid retention of 95–96%. These were the highest values among the tested methods, as oxidation reactions and microbial activity were significantly reduced. However, the high cost of MA equipment and the complexity of the process can make its adoption challenging for small-scale production facilities.

Metallized polypropylene packaging stood out for its affordability and convenience. Due to its low permeability to moisture and oxygen, it allowed a 6-month storage period. Moisture variation was $\pm 1.2\%$, vitamin C retention 88–90%, and carotenoids 90–92%. Its main advantage is economic feasibility, but limited protection against light resulted in some degradation of pigments and vitamins.

Polyethylene–foil laminated packaging demonstrated strong barrier properties against both moisture and oxygen while also providing complete protection from light. Under this method, an 8-month storage period was recorded, with moisture variation of $\pm 0.8\%$, vitamin C retention of 91–93%, and carotenoids 94–95%. The disadvantage is its relatively higher cost, though its effectiveness makes it highly suitable for producing high-quality products.

Dark-colored PET jars and glass containers provided strong mechanical durability and effective protection against light, thereby ensuring good preservation of dried pumpkin powder. Under this method, a storage period of 9 months was achieved, with moisture variation of $\pm 1.0\%$, vitamin C retention of 90–92%, and carotenoid retention of 92–94%. The main disadvantages, however, were their heaviness, which increases logistical costs, and, in some cases, the fragility of glass containers that must also be taken into account.

Transparent PET jars and glass containers also demonstrated good mechanical protection against external factors. Nevertheless, due to their high light transmittance, the degradation of vitamins and carotenoids occurred more rapidly. Although the recorded storage period was 9 months, vitamin C retention dropped to 86–88%, and carotenoids were preserved at only 88–90%. Therefore, when using transparent containers, additional light-protection measures are recommended.

A comparative analysis indicated that the highest preservation of biological value and organoleptic characteristics was achieved with MA packaging and polyethylene–foil laminated films. Vacuum packaging also showed high efficiency, but the issue of powder agglomeration can be a drawback, particularly when fine particle size is required, necessitating additional processing. Metallized polypropylene offered the

most cost-effective solution, although its limited light protection restricts its effectiveness in preserving bioactive compounds.

From the perspective of economic efficiency, MA packaging technology is most suitable for large-scale and high-value products, as it provides the best long-term preservation and minimizes vitamin and pigment loss. For lower-cost products, metallized polypropylene or vacuum packaging may be more practical, provided that product type, market price, storage infrastructure, and consumer demands are carefully considered.

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KERATITNI DAVOLASHNING ZAMONAVIY YONDASHUVLARI

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Annotatsiya: Ushbu maqolada keratitni davolashning zamonaviy yondashuvlari tahlil qilingan. Tadqiqotda adabiyotlar tahlili, klinik ma'lumotlar taqqoslash va zamonaviy davolash usullarining samaradorligini baholash usullari qo'llanilgan. Natijalar shuni ko'rsatdiki, regenerativ tibbiyot usullari, xususan trombositga boy plazma (TBP), an'anaviy antibiotik terapiyasiga nisbatan yuqori samaradorlikka ega. Maqolada zamonaviy yondashuvlarning afzalliklari va cheklovlari tahlil qilinib, amaliy tavsiyalar berilgan.

Kalit so'zlar: keratit, zamonaviy davolash, regenerativ tibbiyot, trombositga boy plazma, antibiotik rezistentligi, klinik samaradorlik.

KIRISH

Keratit - shox pardaning yallig'lanish kasalligi bo'lib, jahon miqyosida ko'rlik va ko'rish buzilishining asosiy sabablaridan biridir [1]. WHO ma'lumotlariga ko'ra, taxminan 6 million kishi shox parda kasalliklari tufayli ko'rlikdan aziyat chekmoqda [2]. So'nggi o'n yillikda keratit holatlarining soni sezilarli darajada oshdi, bu asosan kontakt linzalardan foydalanishning keng tarqalishi va immunitet tanqisligi holatlarining ko'payishi bilan bog'liq [3].

An'anaviy davolash usullari asosan antibiotik, antiviral va antifungal preparatlarga asoslangan bo'lsa-da, ularning bir qator cheklovlari mavjud. Antibiotik rezistentligi so'nggi 10 yillikda 15% dan 35% gacha oshdi [4]. Bundan tashqari, an'anaviy dorilar ko'pincha toksik ta'sirga ega bo'lib, shox parda epiteliyasining tiklanishini sekinlashtirishi mumkin [5]. Shu sababli, zamonaviy va samarali davolash usullarini ishlab chiqish dolzarb masala hisoblanadi.

Zamonaviy davolash yondashuvlari

So'nggi yillarda keratitni davolashda bir nechta innovatsion yondashuvlar rivojlandi. Regenerativ tibbiyot usullari, xususan trombositga boy plazma (TBP) terapiyasi keng qo'llanila boshladi [6]. TBP tarkibida PDGF, TGF- β , VEGF, EGF kabi o'sish omillari mavjud bo'lib, ular to'qimalarning tiklanish jarayonlarini faollashtiradi [7].

Nanotehnologiya asosidagi dori yetkazish tizimlari ham istiqbolli yo'nalish hisoblanadi. 2024 yilda nashr etilgan tadqiqotda nanogidrogellar yordamida dorilarni maqsadli yetkazish samaradorligi 90-96% ga yetganligi ko'rsatildi [8]. Bundan tashqari, genli terapiya va CRISPR/Cas9 texnologiyasi irsiy keratit holatlarida 70-80% samaradorlik ko'rsatmoqda [9].

Klinik samaradorlik taqqoslash

2023-2024 yillarda o'tkazilgan klinik tadqiqotlar zamonaviy usullarning yuqori samaradorligini tasdiqladi. TBP terapiyasi 85-92% samaradorlik ko'rsatdi, bu an'anaviy antibiotik terapiyasining 65-75% samaradorligidan sezilarli darajada yuqori [10]. Davolash muddati ham 14-21 kundan 7-10 kunga qisqardi [11].

Stvolovye hujayralap terapiyasi og'ir keratit holatlarida 88-95% samaradorlik ko'rsatdi [12]. Suniy intellekt yordamida diagnostika va davolash rejasini tanlash 94-98% aniqlik bilan amalga oshirilmoqda [13]. Bu natijalar zamonaviy yondashuvlarning klinik amaliyotda keng qo'llanilishi zarurligini ko'rsatadi.

XULOSA

Keratitni davolashning zamonaviy yondashuvlari an'anaviy usullarga nisbatan yuqori samaradorlik, kam nojo'ya ta'sirlar va qisqa davolash muddatini ta'minlaydi.

Regenerativ tibbiyot, nanotehnologiya va genli terapiya kabi innovatsion usullar kelajakda keratit davolashida asosiy o'rinni egallashi kutilmoqda. Biroq, bu usullarning keng qo'llanilishi uchun qo'shimcha klinik tadqiqotlar va xavfsizlik baholash zarur.

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CORRECTION OF IMMUNOSUPPRESSION IN CANCER PATIENTS DEPENDING ON THE TYPE OF ANESTHESIA

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Resume. The conducted comparative assessment of the effectiveness of the proposed treatment and diagnostic algorithm for the correction of perioperative immunosuppression in cancer patients showed its high clinical effectiveness. The use of immunocorrection before surgery provided a significant improvement in the indices of both cellular and humoral immune responses, with a limitation of the severity of the inflammatory cascade, a decrease in the level of proinflammatory cytokines and stabilization of the activity of regulatory links.

Key words: immunosuppression, immunocorrection, immunity, anesthesia.

Relevance. The problem of perioperative immunosuppression in cancer patients has been actively discussed in the scientific literature since the end of the 20th century, when it became obvious that surgical intervention, despite the radicality of tumor removal, is often accompanied by an increased risk of metastasis. Works of this period established that the tissue trauma itself, accompanying the operation, causes activation of the neuroendocrine stress axis and subsequent systemic immunosuppression (1,3,5). Several studies have shown that the use of epidural or spinal anesthesia can reduce the level of systemic inflammation by reducing the release of catecholamines and cortisol, thereby preserving the antitumor activity of the immune system (7,9). Meanwhile, despite the results obtained, the question of the effect of different anesthetic methods on long-term patient survival remains open (1,2,4).

Data on the advantage of one type of anesthesia over another remain contradictory, since studies differ significantly in design, tumor type, and patient characteristics (6,8). Such data open new prospects for pharmacological correction of disorders.

The aim of the study is to develop a treatment and diagnostic algorithm for the correction of perioperative immunosuppression in cancer patients depending on anesthetic care.

Materials and methods. The study included 120 oncological patients subject to planned surgical treatment for malignant neoplasms of various anatomical locations

for the period from 2021 to 2025 in the Bukhara regional branch of the Republican Specialized Scientific and Practical Medical Center of Oncology and Radiology.

Thus, the distribution by the type of anesthetic intervention was completely balanced and ensured the methodological purity of the comparison of immunological parameters both between and within groups.

For an objective quantitative assessment of the results of immunosuppression correction in oncological patients who underwent surgery, this study used the original unified scale for clinical assessment of the effectiveness of anesthetic care, developed within the framework of this methodological recommendation.

The scale is a structured tool consisting of six independent clinical and functional criteria reflecting the key aspects of the early postoperative period. A three-level assessment system is applied to each criterion: "good" (4 points), "satisfactory" (2 points), and "unsatisfactory" (0 points).

The following parameters were selected for assessment: 1) hemodynamic stability, 2) need for analgesia, 3) awakening characteristics, 4) presence and severity of side effects, 5) need for postoperative observation in the intensive care unit, 6) rate of early recovery of functional activity.

Each criterion was recorded during the first 72 hours after surgery and assessed by a commission of the attending physician, anesthesiologist, and applicant. The total score on the scale could range from 0 to 24. In accordance with the established thresholds, the obtained results were interpreted as follows: ≥ 20 points - clinically highly effective (excellent) anesthetic care; 12-18 points - satisfactory (acceptable); < 12 points - unsatisfactory (questionable from the point of view of clinical validity).

Results and discussion. The first stage of developing the diagnostic scale of immunological admissibility was the correlation analysis between the key parameters of the cellular link of the immune system in cancer patients. The overall profile of the obtained matrix demonstrates moderate mutual independence of most parameters. In particular, the CD3⁺ level did not demonstrate significant correlations with other indicators (maximum value $p=0.093$ with CD8⁺), which reflects its limited discriminatory value as a marker of functional differentiation. CD8⁺ T-cytotoxic cells showed a moderate negative correlation with Treg ($p=-0.285$), which was one of the most pronounced values in the matrix. Such a relationship may indicate real functional antagonism: with the strengthening of the regulatory link, cytotoxic activity is suppressed, which was previously described as one of the mechanisms of tumor immunoevasion. The CD4⁺/CD8⁺ ratio demonstrated insignificant correlations with other variables, with the exception of a moderate negative correlation with NK cells ($p=-0.191$), which was apparently associated with structural reorganization of the

immune response during surgical stress, when innate cytotoxicity is activated compensatorily in the event of an imbalance in T populations. NK cells generally demonstrated independent behavior with weak correlations with most parameters, with only a slight positive correlation with Treg ($\rho=0.183$).

The key proinflammatory mediator IL-6, which in some cases was considered as a universal marker of surgical stress, did not show a reliable correlation with either TNF- α ($\rho=0.007$), or IFN- γ ($\rho=0.085$), or IL-10 ($\rho=0.087$).

IFN- γ , on the contrary, turned out to be weakly correlated with almost all other parameters. This cytokine has a relative autonomy as a marker of cytotoxic functionality, which is especially important in the context of tumor immune control. Its weak association with IL-10 ($\rho=0.008$) and CRP ($\rho=0.078$) confirms that the antitumor cytokine link functions independently of the classical inflammatory axis. IL-10 is of interest. Its negative correlation with CRP ($\rho=-0.187$) may indicate an inhibitory effect of IL-10 on the synthesis of acute phase proteins, but the strength of the association is insufficient to conclude about a direct regulatory interaction, which also illustrates the general focus on restraining the systemic inflammatory response upon activation of the suppressive link. CRP, as an integral marker of inflammation, was generally found to be weakly associated with cytokine variables, which is probably due to its delayed kinetic profile and dependence on other, in particular, non-functional factors, such as age, BMI, tumor stage and preoperative load.

Of interest is the negative value between NK cells and IL-10 ($\rho=-0.187$), which may potentially reflect biological competition between the active innate response and anti-inflammatory control. A decrease in NK cells with a simultaneous increase in IL-10 may be one of the mechanisms that ensure the weakening of cytotoxic surveillance in favor of inflammatory balance. CD4⁺ T helpers showed weak positive relationships with IFN- γ ($\rho=0.196$) and IL-10 ($\rho=0.134$), reflecting their central role in coordinating both proinflammatory and suppressor responses. However, low values of the coefficients confirm that in the acute postoperative period it is inappropriate to analyze CD4⁺ in isolation from Tregs and cytokines, since a comprehensive interpretation is important. Finally, the CD4⁺/CD8⁺ ratio demonstrated the highest negative value with CRP ($\rho=-0.187$), which may reflect the relationship between systemic inflammation and imbalance in the T-cell link.

Based on the data obtained, we constructed a multivariate logistic model to determine the contribution of each immunological indicator to the risk of an unfavorable clinical outcome. The integral unfavorable outcome, i.e. a low total score on the clinical scale, was considered as a dependent variable.

Among all the analyzed parameters, the highest AUC value was recorded for IL-6 (AUC=0.602), which reflects a moderate but stable discriminatory ability of this cytokine in identifying patients prone to the development of severe immunosuppression and complicated postoperative course.

The Treg indicator demonstrated a weak but potentially clinically significant prognostic ability (AUC=0.523). Despite the modest sensitivity level (37.5%), the specificity was 86.4%, which allows us to consider Treg as a parameter that allows us to confirm the already suspected immune inhibition, especially in combination with other markers. On the contrary, the CD4+, NK and IFN- γ indicators did not demonstrate high individual diagnostic value (AUC <0.5). CD4+ and IFN- γ showed an inverse relationship with risk, but their sensitivity level was extremely low (12.5% and 9.3%, respectively), while the specificity of CD4+ was high (95.5%), which allows us to potentially consider it as a clarifying criterion in a comprehensive assessment. NK cells showed hypersensitivity (100%) with extremely low specificity (13.6%), which makes them applicable only as an early signal of general activation of the immune axis, but not as a discriminatory risk predictor. Based on the data obtained, we have developed a scoring scale "SIDAP" (degrees of immunological acceptability of the anesthetic approach) for cancer patients, implemented as a software module in digital format. The "SIDAP" program provides for patient assessment by five key immunological indicators, each of which is interpreted according to a three-level system: 0 points - no deviations, 1 point - moderate changes, 2 points - severe impairment. Threshold values for each criterion are determined based on ROC analysis and confirmed by expert clinical interpretation. This scale forms an objective basis for personalized selection of anesthetic management method, reducing the risk of worsening postoperative immunosuppression and opening up opportunities for early correction of immune imbalance.

I degree of immunological tolerance (0-4 points), II degree of immunological tolerance (5-7 points), III degree of immunological tolerance (≥ 8 points).

Comparative analysis of the distribution of patients by degrees of immunological tolerance (I-III) in groups I and II at the stage of inclusion in the study demonstrated the comparability of the initial immune profile. The assessment was carried out before immunocorrective measures and before the choice of anesthetic tactics, solely on the basis of laboratory parameters included in the SIDAP scale.

In both groups, patients with a limited or low degree of immunological tolerance predominated, which reflects the high prevalence of immunosuppressive changes in cancer patients before surgery. The proposed method for correcting perioperative immunosuppression and choosing anesthetic tactics in cancer patients is based on a

step-by-step clinical and immunological stratification of the risk of developing immune disorders in response to surgery. It is based on the author's scale of immunological tolerance to anesthesia, taking into account five key indicators of immune status.

At the first stage of the treatment and diagnostic algorithm, a laboratory examination of the patient is carried out, including the determination of five main immunological indicators. The interpretation of the values is carried out according to the SIDAP scale developed by us. Further tactics are determined depending on the degree of SIDAP.

If the first degree of tolerance (SIDAP-1) is present, the patient is considered immunologically resistant. In this case, anesthetic tactics do not require restrictions: general, regional or combined anesthesia can be used depending on the scope of the operation, the anatomical zone and the preferences of the anesthesiologist.

When the second degree of acceptability (SIDAP-2) is detected, the patient shows moderate violations of one or more indicators: decrease in CD4⁺ to 30-35%, decrease in NK to 10-12.9%, increase in Treg to 6.1-7%, increase in IL-6 to 45 pg/ml and decrease in IFN- γ to 6.5-7.4 pg/ml. In this case, the patient is considered conditionally acceptable for general anesthesia, but priority is given to combined or regional methods. At the same time, moderate immunocorrection is recommended, aimed at stabilizing the inflammatory background and supporting cellular immunity. Moderate and metabolically targeted immunocorrection is recommended, aimed at reducing the level of IL-6, supporting the function of NK cells and moderate inhibition of the proinflammatory cascade. These measures make it possible with a high probability to improve the immune profile indicators and reduce the risks during general or combined anesthesia. The correction program includes four main elements. Celecoxib (COX-2 inhibitor), 200 mg 2 times a day for 3 days before surgery, in order to reduce the level of IL-6 and TNF- α by reducing the production of proinflammatory mediators.

In order to stabilize the cell membrane, neutralize free radicals, protect NK and CD4⁺ lymphocytes, antioxidant support is prescribed: N-acetylcysteine (NAC): 600 mg $\times$ 2 times a day, orally or parenterally; Vitamin C: 1000 mg / day orally, in 2 doses of 500 mg; Vitamin E: 100 mg / day, orally in capsules. The duration of therapy is 3 days before surgery.

In order to stimulate IFN- γ synthesis, support lymphocyte function and cytotoxic activity, nutritional support (immunonutrition) is prescribed, which includes the use of L-arginine 2-3 g, Glutamine 2 g, Zinc 15-20 mg, Selenium 100-150 mcg, which can be taken in the form of ready-made mixtures (for example, Impact®, Nutridrink® Protein Plus), in a volume of 400-600 ml / day in 2-3 doses per day for 72 hours before surgery. The use of immunonutrition has been proven effective in preparing cancer patients for abdominal surgery. In order to reduce Treg activation, avoid immune inhibition caused

by opioids (to achieve minimization of the opioid load), morphine and its derivatives (fentanyl, tramadol) are replaced with paracetamol ($1 \text{ g} \times 4$ times a day); meloxicam (15 mg orally once a day); ketorolac (30 mg intramuscularly); regional analgesia, if possible (blockade, infiltration, epidural analgesia); dexmedetomidine (0.2-0.7 mcg/kg/h intravenously in a perfusor, as indicated, especially in cases of high anxiety and unstable hemodynamics).

Patients with the third degree of immunological tolerance according to the SIDAP scale (total score of 8 points or higher) have severe immune disorders characterized by a persistent decrease in CD4+ and NK cells, an increase in IL-6 and Treg levels, and a decrease in IFN- γ . This profile is associated with a high risk of developing postoperative immunosuppression, delayed recovery, infectious complications, and worsening oncological outcomes. Therefore, general or combined anesthesia without preliminary immunological preparation is contraindicated in this group. In order to stabilize the immune status and transfer the patient to a safer category, a mandatory course of immunocorrection is carried out for at least 72 hours before the planned intervention, including: Celecoxib, NSAIDs and multimodal analgesia, nutritional support (immunonutrition), antioxidants (support of cellular homeostasis), immunomodulators (for the purpose of direct stimulation of the Th1 response and / or suppression of Treg) and the use of transfer factors, Reaferon-Lipint (IFN- α 2b) 500 thousand IU, orally, 1 time per day.

After 72 hours from the start of immunocorrection, a repeated laboratory assessment of the immune profile is carried out, recalculation of points on the SIDAP scale and reassessment of the degree of admissibility. If the patient moves to stage II or I, combined or general anesthesia is acceptable; if stage III remains, the operation is performed under regional support or postponed until the immune status is stabilized.

Thus, the described course of mandatory immunocorrection allows us to transfer patients from the high-risk zone to the controlled one, reducing the likelihood of developing postoperative immunosuppression, complications and violations of antitumor surveillance. It provides the opportunity to choose an anesthetic approach consistent with the state of the immune system and introduces the principle of immunological responsibility into the practice of oncoanesthesiology.

The data obtained confirm the high efficiency of the proposed immunocorrection program. More than 40% of patients who initially had grade III immunological tolerance were able to achieve a risk reduction to grade II or I. As a result, the dynamics allowed us to expand the range of acceptable anesthetic interventions, reduce the need for delays, and ensure the implementation of safer individualized tactics.

The developed treatment and diagnostic algorithm for choosing an anesthetic tactics and correcting perioperative immunosuppression in cancer patients is based on a quantitative assessment of the immunological status using the original scale of immunological tolerance (SIDAP). The scale takes into account five key indicators: CD4+, NK, Treg, IL-6 and IFN- γ , allowing to objectively determine the degree of risk of immunosuppression development during general or combined anesthesia.

In general, immunological correction performed before surgery ensured the formation of a more stable, adaptive immune phenotype in patients, which was expressed in a lesser severity of the postoperative decline in key lymphocyte populations, a more stable functional index and limited growth of the regulatory link. Against the background of general anesthesia, where the most pronounced immune shifts were observed in group I, in patients with immunocorrection they were mitigated by almost 1.5-2 times, which emphasizes the practical significance of the developed preparation algorithm. In comparison with group I, where such measures were not carried out, the dynamics of inflammatory and regulatory markers turned out to be not only more moderate, but also biologically more coordinated, reflecting a weakening of the proinflammatory response and the preservation of adaptive stability. At the stage of preoperative preparation, most patients in Group II showed a moderate decrease in IL-6 and TNF- α levels, which can be interpreted as preventive suppression of subclinical inflammation.

Immunocorrection in the preoperative period is able to modulate the patient's inflammatory reactivity and form a more physiological cytokine response. A decrease in the amplitude of IL-6 and TNF- α , stabilization of IFN- γ and limitation of hyperproduction of IL-10 and CRP create the prerequisites for maintaining the immune balance under surgical stress. The correction effect was especially pronounced when using regional or combined anesthetic approaches, where the cytokine profile indicators demonstrated the best preservation.

The combined approach to the choice of anesthesia (OA + RA) provided a moderate need for additional analgesia in most patients in Group I. After immunocorrection, this number decreased by 17%, and the number of patients who did not need correction of pain relief almost doubled.

Awakening delay in OA with signs of cognitive disorientation was recorded in 2 patients in Group II versus 6 in Group I. At the same time, 7 out of 20 patients in the main group woke up quickly and calmly, while in the control group there were less than a quarter of them.

The subgroup of patients with RA demonstrated the clearest contrast: all 10 patients in Group II woke up without delays and side effects. In Group I, a delay was recorded in

one patient, but the total number of those who woke up perfectly was 20% lower ($p < 0.05$).

The use of combined (OA + RA) anesthesia after immunocorrection showed good results in 10 patients (1.4 times more often than in Group I). Clinically, this was accompanied by a reduction in the duration of post-anesthesia observation.

With OA in Group I, a quarter of patients had severe side effects (vomiting, chills, agitation). In Group II, this indicator decreased almost 5 times, while the proportion of patients without side effects increased by 30% ($p < 0.01$). Side effects in Group I with RA were observed in half of the patients, but required intervention in only 1 case. In Group II, side effects were virtually absent: 12 patients (60%) passed the postoperative period without complaints, which is significantly higher compared to the control subgroup. The proportion of patients with clinically significant side effects in OA + RA decreased from 2 to 1 case, and the number of patients without symptoms increased by 1.6 times, which further confirms the protective effect of immunocorrection and the gentle neurovegetative profile of combined anesthesia.

6 patients in Group I required observation for more than 24 hours after OA. After immunocorrection, there was only 1 such patient, which demonstrates a decrease in the severity of the postoperative period. The number of patients who did not need intensive care increased almost twofold ($p < 0.01$). Even in Group I, patients with RA generally did not require intensive care. But in Group II, there was not a single case of even short-term intensive care control, which emphasizes that the regional component in combination with immune preparation almost completely eliminates the need for resuscitation support. Among patients in group I after OA+RA, 3 cases required observation for >24 hours. In group II - only 1. Good results were assessed in 9 patients versus 8 in group I, i.e. the improvement was pronounced, but moderate.

In Group I, 7 patients did not recover their activity within the first 48 hours after OA. In Group II, there were only 2 such patients. The number of patients who got up within the first day increased by 30%, reflecting both a decrease in inflammation and better autonomic adaptation. In Group II, 11 patients (55%) demonstrated complete recovery within 24 hours after RA, while in Group I there were only 8 such patients. Negative dynamics were not recorded in any patient in Group II. After immunocorrection, the proportion of patients with OA + RA who got up within the first 24 hours increased by 40%, and the number of late mobilizations (more than 48 hours) decreased threefold, which confirms the beneficial effect of the combination of techniques and immune intervention. In general, the introduction of immunocorrection allowed not only to reduce the number of clinically unfavorable scenarios, but also to significantly increase the proportion of patients with the most favorable postoperative status, which confirms

the real clinical value of the approach. The effect is especially pronounced in patients who received regional or combined anesthesia, where stabilization of the immune background was supplemented by the physiological advantage of the method. Thus, the comparative assessment of the effectiveness of the proposed treatment and diagnostic algorithm for the correction of perioperative immunosuppression in cancer patients showed its high clinical effectiveness. The use of immunocorrection before surgery ensured a significant improvement in the indicators of both cellular and humoral immune responses, with a limitation of the severity of the inflammatory cascade, a decrease in the level of proinflammatory cytokines and stabilization of the activity of regulatory links.

Conclusions:

1. The comparative evaluation of the effectiveness of the proposed treatment and diagnostic algorithm for the correction of perioperative immunosuppression in cancer patients showed its high clinical effectiveness. The use of immunocorrection before surgery provided a significant improvement in the indices of both cellular and humoral immune responses, with a limitation of the severity of the inflammatory cascade, a decrease in the level of proinflammatory cytokines and stabilization of the activity of regulatory links.
2. Analysis using the integrated clinical scale for assessing effectiveness demonstrated a significant decrease in the proportion of unsatisfactory outcomes in the main group - more than 2 times, with a simultaneous increase in the proportion of good clinical profiles by 43% ($p < 0.05$). The most pronounced positive effect was recorded with regional and combined anesthesia, which emphasizes the synergism between immunological preparation and the physiological nature of the anesthetic approach.

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Akmeologik yondashuv - bo'lajak tarjimonlarning kasbiy kompetentligini rivojlantirish omili sifatida.

Mamarajabov Botir Baxodir o'g'li
Nizomiy nomidagi TDPU mustaqil tadqiqotchisi, PhD.

Annotatsiya: Akmeologik yondashuv asosida bo'lajak tarjimonlarini kasbiy kompetensiyasini rivojlantirish mazmuni yoritilgan. Akmeologik yondashuvni bo'lajak tarjimonlarning kasbiy kompetentligini rivojlantirish omili sifatida tahlili amalga oshirilgan.

Kalit so'zlar: Akmeologik yondashuv, tamoyillar, gnoseologik komponentlar, etnolingvistik komponentlar, axborot texnologik komponent, psixologik komponent, **bilim, malaka, ko'nikmalar, qobiliyatlar**, yondashuvlari

Zamonaviy ta'lim muassasasi uchun akmeologik yondashuv bugungi kunda kelajakli va istiqbolli bo'lib, uning mohiyati shundan iboratki, yuqori marralarga erishishga ta'sir etish mumkin bo'lishi uchun sub'ektga kompleks tekshiruv o'tkazilishi va yaxlitligini qayta tiklashi, yetuklikka erishishga o'tishda, uning individ, shaxs va sub'ekt sifatida-faoliyat xarakteristikasi barcha o'zaro aloqadorliklar va vujudga keltiruvchi sabablar bilan birgalikda o'rganiladi. Bu ta'limdagi innovatsion yondashuvlardan biri bo'lib, bo'lajak tarjimon o'z, shaxsiy akmesini aniqlab olishi uchun unda o'sha tanlagan ixtisosligiga nisbatan kuchli undovchi motivlar, hayotda esa muvaffaqiyatlarga erishish motivi yoki yutuqlarga erishish ehtiyoji kuchli rivojlanadi. Bo'lajak tarjimon tayyorlashning ijtimoiy – pedagogik zarurati va talabalarning mavjud tayyorgarligi o'rtasidagi qarama-qarshiliklar bir qator muammolarni hal etishni taqozo etmoqda. Bo'lajak tarjimonlar tayyorlash pedagogik tizimini tubdan modernizatsiyasini amalga oshirish mazkur tizimini optimizatsiya qilishga imkon beruvchi yangi yondashuvlarni asoslamasdan amalga oshirilishi mumkin emas.

A. Derkach, V. Zazykin e'tiroficha, akmeologik yondashuv bo'lajak o'qituvchilarda pedagogik ijodkorlikni shakllantirishning ilmiy asosi sifatida pedagogika oliy ta'lim muassasasi talabalarining mazkur jarayon ishtirokchilari, kasbiy faoliyatning yetuk shaxslari va faol sub'ektlaritarzida namoyon bo'lishlariga asoslanadi hamda

ularning sub'ekt va mutaxassis sifatida bosqichma-bosqich, uzluksiz o'z-o'zini takomillashtirishi va o'z-o'zini shakllantirishi uchun sharoit yaratadi[4]. Pedagogik ijodkorlikning rivojlanishi xilma-xil qobiliyatlarning aks etishi bilan bog'liqdir. V.G. Zazikinining fikricha, akmeologik yondashuvning vazifasi bo'lajak mutaxassisni tobora yuqori professional va shaxsiy darajaga o'tkazish jarayonini tashkil etish va amalga oshirish bo'yicha strategiya va taktikalarni ishlab chiqishdan iborat[2]. Kasbiy faoliyat, kasbiy mahorat, kasbiy faoliyatning muayyan turida o'zini o'zi ro'yobga chiqaradigan ilg'or rivojlanayotgan shaxs akmeologik yondashuvning jiddiy e'tiboridagi ob'ektdir. A.A. Derkachning fikriga ko'ra, akmeologik yondashuvning o'ziga xos jihatlari falsafa, shaxs psixologiyasida ishlab chiqilgan turli yondashuvlardan foydalanishdan iborat. Masalan, tizimli va amaliy yondashuvlar qoidalari bilan bir qatorda, turli mutaxassislarning, tarjimonlarning, yaratuvchanlik faoliyatini o'rganishda akmeologik yondashuv quyidagi tadqiqot strategiyalarini qamrab oladi: B.G. Ananov tomonidan asoslagan insonni o'rganishga yaxlit yondashuv; P.K. Anoxin tomonidan ishlab chiqilgan yangi muhitga chiqishda qidirilayotgan oxirgi natija tizim hosil qiluvchi omil bo'lgan funksional tizimlar nazariyasi; sinergetik yondashuv [4]. A.G. Zazikin va V.N. Maksimovalarning ta'kidlashicha, oliy o'quv muassasalari ta'limiga akmeologik yondashuv ta'lim jarayonining maqsadi va natijasi - bu o'qitishning har bir bosqichida yetuklikning integral sifat darajasiga erishish orqali amalga oshiriladigan mutaxassisning yaxlit rivojlanishidir va bu quyidagi psixologik-pedagogik sharoitlarda amalga oshirilganida ro'yobga chiqishi mumkin[5]: tarbiya jarayonini shaxsning o'z-o'zini barqaror rivojlantirishning hayot davri strategiyasini rivojlantirishga bo'ysunishi, chunki salohiyat - bu nafaqat tabiatdan berilgan narsalar, balki doimiy ravishda to'ldiriladigan bilimlar, mantiqiy xususiyatlar tizimidir; kasbiy ko'nikmalar va malakalarni tegishli kasbiy jihatdan muhim bo'lgan, tegishli ko'nikmalarni rivojlantirishni ta'minlaydigan sifatlar bilan birgalikda parallel ravishda jadal rivojlantirish [4].

B.G. Ananov, A.A. Derkach, Z.F. Yesareva, V.G. Zazikin, N.V. Kuzmina, V.N. Maksimova, A.A. Rean, E.F. Ribalko, E.I. Stepanova, G.S. Suxobskaya va boshqalar kabi akmeologik yondashuv vakillari nuqtai nazarlarining xilma-xilligini umumlashtirib, biz bu yondashuvni bo'lajak tarjimonlarning kasbiy malakasini rivojlantirish jarayoniga qo'lladik. Shu tariqa biz tarjimonlar tayyorlash jarayonining mazmuniga yangilik kiritish, talabani shaxsan va kasbiy rivojlanishida cho'qqilarga erishish bilan bog'liq akmeologik g'oyalarni tayyorlashning yangi modellarida amalga oshirish uchun ilmiy-amaliy shart-sharoitlar yaratish dolzarb masala sanaladi. Avval ta'kidlaganimizdek, bugungi kunda kasbiy tayyorgarlik muammosining faoliyatli jihatlarni ishlab chiqish ustuvor ahamiyat kasb etmoqda, bu esa biz tadqiqotimizni o'z

ichiga olgan shaxs va faoliyat birligining muhim metodologik tamoyiliga to'liq mos kelmaydi. Bo'lajak tarjimonlarning kasbiy kompetentligini rivojlantirishda akmeologik yondashuvdan foydalanib, biz muammoni hal qilishning faoliyatli jihatiga qaratilgan mavjud ishlarga qo'shimcha ravishda kasbiy kompetentlikni **shaxsiy jihatiga** e'tiborni kuchaytirishga intilamiz.

Ma'lumki, yetuk shaxsning ilg'or rivojlanishi bo'yicha o'tkazilgan tadqiqotlarning umumiy muammosida uning shaxsiy-kasbiy professionalligi darajasigacha rivojlanishi alohida o'rin tutadi. Kasbiy rivojlanish muammosini o'rganish orqali biz, shuningdek, shaxs faoliyatda rivojlanishi, faoliyatning aksariyat turlari esa professional deb hisoblashga moyilmiz. Shu tariqa biz shaxsiy-kasbiy rivojlanishdagi barqaror aloqaga urg'u beramiz, biz uni tadqiqot ishimiz yo'nalishini belgilovchi vektor sifatida qabul qilamiz hamda professional va shaxsiy sohalaridagi chambarchas o'zaro harakatlarni aks ettiruvchi tuzilma sifatida taqdim etamiz. Bir tomondan, mehnat sub'ekti shaxsining o'ziga xos xususiyatlari kasbiy faoliyat jarayoniga va natijalariga sezilarli ta'sir ko'rsatsa, ikkinchi tomondan, shaxsni rivojlantirish kasbiy faoliyatning o'ziga xos xususiyatlari ta'siri ostida sodir bo'ladi.

Bo'lajak tarjimonlarning kasbiy kompetentligini rivojlantirish jarayonini ishlab chiqishda biz uchun professionallik, professional, professionallikning akmeologik invariantlari toifalarning mohiyati haqidagi akmeologik tushunchalar boshlang'ich nuqtalar bo'ldi. Bu tushunchalarni ko'rib chiqishning zarurligi ularning akmeologik yondashuv vakillari tomonidan professionalizm yo'lidagi bosqichlardan biri sifatida qaraladigan kasbiy kompetentlik tushunchasi bilan yaqinligi bilan izohlanadi. Demak, professionallikni rivojlantirishning alohida jihatlari bo'lajak tarjimonlarning kasbiy kompetentligini rivojlantirish jarayonining asosiy qoidalarini rivojlantirishga yordam beradi.

Professionalizm muammosiga yaxlit yondashuvni ma'qullagan holda akmeolog olimlar O.S. Anisimov, E.N. Bogdanov, V.V. Petrusinskiy, A.A. Rean, I.N. Semenov, S.Yu. Stepanov professionallikni ikki tomondan ko'rib chiqadilar. Birinchidan, mehnat sub'ektining kasbiy malakasi va kompetentligini, samarali kasbiy ko'nikma va ko'nikmalarning turlicha bo'lishini, kasbiy vazifalarni hal etishning zamonaviy usullariga egalkini nazarda tutuvchi faoliyatning professionalligi sifatida, bu faoliyatni yanada samarali amalga oshirish imkonini beradi. Ikkinchidan, shaxsning professionalligi, ilg'or rivojlanishga yo'naltirilgan professional muhim va shaxsiy ishchanlik fazilatlarini, kreativlik, motivatsion soha, qadriyatlar yo'nalganligi yuqori darajasidir. Demak, professional akmeologik yondashuv nuqtai nazaridan «... shaxs va faoliyatning professional yuqori ko'rsatkichlariga ega bo'lgan, doimiy ravishda o'zini o'zi rivojlantirishga, shaxsiy va kasbiy yutuqlarga yo'naltirilgan kasbiy faoliyat

sub'ekti» sifatida qaraladi [5]. Bu shuni anglatadiki, «professionallik» kategoriyasi mohiyatan professional faoliyat sub'ekting kasbiy yaroqliligini, uning yo'nalishini, kasbiy tayyorgarligini va ruhiy holatini hisobga oladi.

O'ziga xos fazilatlar muayyan faoliyat turiga yo'naltirilgan kasbiy malakalarning kichik tuzilmasining batafsilroq tavsifini ifodalaydi. «Inson-inson», «inson-jamoa» toifalar uchun (tarjimon kasbi ham shularga tegishli) ular sezuvchanlik; kommunikativlik; psixologik ta'sir ko'rsatish qobiliyati; ta'sir qilish, ishontirish, ilhomlantirish, bahslashish, tinglash malakasini o'z ichiga oladi:.

Tadqiqotimiz kontekstida akmeologik yondashuv bo'lajak tarjimonlarni kasbiy faoliyatga samarali tayyorgarligining asosi bo'lib xizmat qiladi. Akmeologik yondashuv asosida tarjimonlik kasbiy faoliyatining intellektual, predmetli-amaliy, axborot-texnologik, motivatsion-ehtiyojli, emotsional va refleksiv-baholash sohalarida tarjimon faoliyatiga oid kasbiy ahamiyatga ega sifatlar tizimini ajratib ko'rsatildi.

Intellektual sohasiga oid bo'lajak tarjimonning kasbiy kompetentligining gnoseologik va etnolingvistik komponentlari verbal-mantiqiy qobiliyatlar (nutqiy-tafakkur javob berishning tezligi, taqdim etishning ritmi, talaffuz, to'g'ri intonatsiya qilish); bir tildan ikkinchi tilga, bir mavzudan ikkinchi mavzuga yoki bir uslubiy registrdan ikkinchiga tezkorlik bilan o'tish malaka va ko'nikmasi; ortiqcha va tayanch axborotni aniqlash malakasi;jamiyat hayotining turli jabhalarida xabardorlik kabi malaka va ko'nikmalarni qamrab oladi.Predmet-amaliy sohasiga oid bo'lajak tarjimonning kasbiy kompeteniligining gnoseologik va etnolingvistik komponentlari nostandart tarjimaviy muvofiqlarni o'rnatish malakasi;o'z xulqini tegishli ravishda tartibga solish yo'li bilan tarjima qilinayotgan kommunikatlarning ishtimoiy mavqei va rollarini inobatga olish malaka va ko'nikmasi;sinonimik yoki funksional almashtirish yoki ta'rifiy tarjima yo'li bilan tillararo ekvivalentsizlikni yengish malakasi;tarjimaviy tez yozish yordamida tarjima qilinayotgan matning asosiy mazmunini semantik (ma'noli) yozish malakasi ;bir nechta fikrlar mazmunini yozmasdan, yetarli darajada aniq yodlash ko'nikmasi;notiq tomonidan "yozilgan matn bo'yicha" bayon etilayotgan nutqni, ya'ni kvaziog'zaki nutqni, tarjima qilish ko'nikmasi;bir nechta amallarni (o'qish va gapirish, eshitish va gapirish, eshitish va yozish va hokazo) parallel ravishda bajarish malakasi o'z ichiga oladi.Axborot--texnologik sohasiga oid bo'lajak tarjimonning kasbiy kompeteniligining axborot -texnologik komponenti lug'atlar va ma'lumot beruvchi adabiyotlardan tezkorlik va chaparasta tarzda foydalanish malakasi;Internet Explorer manbalaridan foydalanish malakasi;elektron lug'atlar, elektron tarjima tizimlaridan foydalanish malakasi tarjimaga tayyorlanish, ya'ni axborotni yig'ish, malakasidan iborat.Emotsional sohasiga oid bo'lajak tarjimonning kasbiy kompeteniligining psixologik komponenti

o‘z-o‘zini tartibga solish ko‘nikmasi; stressga chidamlilik, ya‘ni ko‘p to‘sqinliklar (naushnikdagi shovqin, gapirayotgan shaxsning nutqi noaniqligi, uni dialektli talaffuzi) sharoitida ishlash ko‘nikmasi; relaksatsiya qilish malakasi; ahloqiy me‘yorlarni tushunishni ko‘zda tutadi. Motivatsionno-iste‘mol qiluvchi sohasiga oid bo‘lajak tarjimonning kasbiy kompeteniligining psixologik komponenti tarjima faoliyatiga ehtiyoj; doimiy tarzda olg‘a yurishga ehtiyoj; qiziqishlarning ko‘pqirraligi va kengligi; innovatsion tarjima tajribasini o‘rganishga ehtiyoj; karerali (mansab pog‘onalari bo‘yicha) o‘rish motivi; mavjud malaka va ko‘nikmalarni takomillashtirish motivini jamlaydi. Refleksiv-baholovchi sohasiga oid bo‘lajak tarjimonning kasbiy kompeteniligining psixologik komponenti vaziyatga bevosita kirishgan holda o‘z harakatlarini ajratish, tahlil qilish va kasbiy vaziyatga muvofiqlashtirish ko‘nikmasi (hozirgi vaqtdagi o‘z faoliyatini refleksiyasi); qo‘lga kiritilgan natijalarni tahlil qilish, bajarilgan faoliyatdagi mumkin bo‘lgan xatolar sabablarini aniqlash malakasi (refleksiyaning retrospektiv jihati); bajariladigan faoliyatni rejalashtirish, natijalarini taxmin qilish malakasi shzida ifodlaydi. Mazkur shakllantirilishi lozim bo‘lgan tarjimonning kasbiy muhim xislatlari bevosita faoliyat parametrlari (intellektual, fan-amaliy, axborot-texnologik sohalar) bilan tavsiflanadigan kasbiy muhim xislatlarga va shaxsiy-psixologik xususiyatlar (emotsional, motivatsion-ehtiyojli va refleksiv-baholash sohalarini) belgilaydigan kasbiy muhim xislatlarga taqsimlanishni taklif etamiz. Ajratilgan xislatlarni bo‘lajak tarjimonning kasbiy kompeteniligining tarkibiy qismlari bilan solishtirib, biz gnoseologik va etnolingvistik tarkibiy komponentlarni - intellektual va fan-amaliy sohalarida ajratilgan malaka va ko‘nikmalar bilan; axborot-texnologik komponentni - axborot-texnologik sohaga bilan; psixologik komponentni - emotsional, motivatsion-ehtiyojli va refleksiv-baholash sohalarini bilan bog‘ladik. Kasbiy mahorat jarayoni va kasbiy-shaxsiy yaxlitlikni rivojlantirish o‘rtasidagi o‘zaro bog‘liqlikda bo‘lajak tarjimonlarning shaxsiy kasbiy kompetentligini maqsadli yo‘naltirilganligida bo‘lajak tarjimonlarning kasbiy kompetentligini rivojlantirishga akmeologik yondashuvini ko‘rib chiqish yo‘llaridan biridir.

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СОВРЕМЕННЫЕ МЕТОДЫ НЕЙРОХИРУРГИЧЕСКОГО ЛЕЧЕНИЯ СОСУДИСТЫХ ЗАБОЛЕВАНИЙ ГОЛОВНОГО МОЗГА

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Аннотация : В статье рассматриваются современные методы нейрохирургического лечения сосудистых заболеваний головного мозга, включая церебральные аневризмы, артериовенозные мальформации и внутричерепные кровоизлияния. Подчёркивается значение минимально инвазивных технологий, таких как эндоваскулярные вмешательства, а также инновационных подходов, обеспечивающих повышение эффективности и безопасности операций.

Ключевые слова: нейрохирургия, сосудистые заболевания головного мозга, аневризма, артериовенозная мальформация, эндоваскулярная хирургия, микронейрохирургия, инсульт, радиохirurgия.

Сосудистые заболевания головного мозга на протяжении последних десятилетий остаются одной из ведущих причин смертности и инвалидизации во всём мире. По данным Всемирной организации здравоохранения, цереброваскулярные патологии уступают лишь ишемической болезни сердца, формируя колоссальную медицинскую и социальную нагрузку. Особую опасность представляют такие состояния, как внутричерепные аневризмы, артериовенозные мальформации и каверномы, поскольку их разрыв

сопровождается высоким риском летального исхода и тяжёлых неврологических нарушений. Нейрохирургия как специализированная область медицины прошла значительный путь развития: от первых попыток трепанации до внедрения высокотехнологичных методов микрохирургии и эндоваскулярных вмешательств. Сегодня именно сочетание фундаментальных знаний о патогенезе сосудистых заболеваний и доступ к современным технологиям позволяет врачам значительно расширить спектр возможностей хирургического лечения. Актуальность изучения современных методов нейрохирургического лечения сосудистых заболеваний головного мозга обусловлена не только высокой распространённостью данной патологии, но и стремительным развитием новых технологий, которые делают возможным проведение малоинвазивных, высокоточных и эффективных операций. В условиях постоянного прогресса медицинской науки именно анализ и систематизация этих подходов приобретает особую значимость для практикующих специалистов и исследователей. Сосудистые заболевания головного мозга относятся к числу наиболее распространённых патологий нервной системы. По статистическим данным, инсульты и внутричерепные кровоизлияния занимают второе место среди причин смертности в мире и являются ведущей причиной стойкой утраты трудоспособности у взрослого населения. В структуре нейрохирургической патологии наиболее клинически значимыми считаются внутричерепные аневризмы и артериовенозные мальформации (АВМ). Распространённость аневризм головного мозга, по результатам крупных эпидемиологических исследований, составляет от 2 до 5 % в популяции. При этом разрыв аневризмы сопровождается смертностью до 50 % случаев и высоким риском инвалидизации среди выживших пациентов. Артериовенозные мальформации встречаются реже — приблизительно у 0,1–0,5 % населения, однако именно они являются основной причиной нетравматических внутричерепных кровоизлияний у лиц молодого возраста. Кавернозные мальформации, в свою очередь, обнаруживаются примерно у 0,4–0,8 % населения и могут длительно протекать бессимптомно, однако при определённых условиях также становятся источником внутричерепных кровоизлияний.

- Актуальность проблемы сосудистых заболеваний головного мозга определяется рядом факторов:
- Высокой смертностью и инвалидизацией пациентов при разрыве сосудистых образований.

- Социально-экономическими последствиями, так как большинство больных — лица трудоспособного возраста.
- Диагностическими сложностями, особенно при бессимптомном течении патологий.

Необходимостью выбора оптимальной тактики лечения, учитывающей индивидуальные особенности пациента, локализацию и морфологию сосудистого образования. Их своевременная диагностика и правильный выбор хирургической тактики являются определяющими факторами в снижении смертности и улучшении качества жизни пациентов. Развитие нейрохирургии в последние десятилетия позволило значительно расширить спектр методов лечения сосудистых заболеваний головного мозга. Современные технологии делают возможным индивидуальный выбор тактики вмешательства с учётом анатомических особенностей патологического образования, его локализации и общего состояния пациента. На сегодняшний день выделяют несколько основных направлений хирургического лечения: микрохирургическое клипирование, эндоваскулярные вмешательства, радиохирurgia и комбинированные подходы. Микрохирургическое клипирование остаётся «золотым стандартом» лечения внутричерепных аневризм, особенно при их поверхностном расположении или неблагоприятной анатомии для эндоваскулярного закрытия. Суть метода заключается в открытой трепанации черепа и установке титанового клипса на шейку аневризмы, что полностью исключает её из кровотока.

Преимущества данного метода включают:

1. высокую надёжность и минимальный риск реканализации;
2. возможность прямой визуализации и удаления внутримозговых гематом;
3. сохранение физиологического кровотока по основным артериям.

К недостаткам относят инвазивность процедуры, риск послеоперационных осложнений (ишемия, инфекции, неврологический дефицит) и необходимость длительной реабилитации. Однако при правильном отборе пациентов микрохирургическое клипирование демонстрирует отличные отдалённые результаты и низкий процент повторных кровоизлияний. Эндоваскулярная нейрохирургия представляет собой наиболее динамично развивающееся направление. Метод заключается во введении катетера через бедренную или лучевую артерию с последующим продвижением в церебральные сосуды под контролем ангиографии. Эмболизация артериовенозных мальформаций с использованием жидких эмболизирующих агентов (например, онникс).

Окклюзия патологических сосудистых шунтов с целью предотвращения кровотока по аномальным каналам. Главными преимуществами эндоваскулярных методов являются минимальная инвазивность, сокращение сроков госпитализации и возможность лечения глубоко расположенных сосудистых образований. Вместе с тем сохраняется риск реканализации, тромбоэмболических осложнений и необходимости повторных вмешательств. К преимуществам радиохирургии относят отсутствие необходимости в трепанации, минимальные риски для пациента и возможность лечения труднодоступных образований. Современное развитие нейрохирургии сосудистых заболеваний головного мозга тесно связано с внедрением инновационных технологий, которые позволяют значительно повысить точность диагностики, безопасность и эффективность хирургических вмешательств. На стыке нейрохирургии, биоинженерии и информационных технологий формируются новые подходы, меняющие традиционные представления о возможностях лечения. Важным этапом эволюции нейрохирургии стало внедрение систем нейронавигации, обеспечивающих трёхмерную визуализацию сосудистых образований в режиме реального времени. Существенным достижением последних лет стало создание новых эмболизирующих материалов и устройств. Применение флоу-дивертеров (flow diverters) позволяет перенаправить кровоток и обеспечить постепенное тромбирование аневризматического мешка без необходимости прямого закрытия шейки. Появление жидких эмболизирующих препаратов с высокой биосовместимостью (например, Опух, PHIL) повысило эффективность лечения сложных артериовенозных мальформаций и снизило риск повторных вмешательств. Роботизированные комплексы в нейрохирургии находятся на этапе активного внедрения.

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FEATURES OF INTERFERON STATUS IN NEWBORNS BORN TO MOTHERS INFECTED WITH COVID-19

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Relevance: Numerous retrospective studies have been conducted to analyze the consequences of COVID-19 in pregnant women for their newborns [9]. It is known that vertical transmission of SARS-CoV-2 is possible, but appears to occur in a minority of maternal coronavirus infections during the third trimester [4,5]. Vertical transmission of the novel coronavirus infection (COVID-19) from mother to child is considered to be extremely unlikely [1]. Only a few, and rather controversial, cases of possible vertical transmission have been described in China [2,6] and Peru [3]. According to the current WHO guidelines, COVID-19 tests should be performed using reverse transcription polymerase chain reaction (RT-PCR) as the most accurate and reliable method for diagnosing viral infections [4].

Purpose of the study: To study the interferon status of newborns born to mothers infected with COVID-19.

Materials and methods: To investigate the interferon characteristics of newborns born to mothers with COVID-19, 60 newborns were examined at the Kagan "COVID Hospital" in Bukhara region. All pregnant women tested positive for SARS-CoV-2 via PCR. The examination was carried out between July and November 2021. All newborns were full-term with a gestational age of 38–42 weeks. IFN α , antibodies to IFN α , and IFN γ were measured in umbilical cord blood. The control group included 60 healthy newborns from mothers with physiologically normal pregnancies. Immunological studies of the newborns' blood were conducted at the Laboratory of Immunomorphology, Institute of Human Immunology and Genomics, Academy of Sciences of the Republic of Uzbekistan.

Study Results: Of the 60 newborns, 51 had an Apgar score of 7–8, while 9 had scores of 6–7. The results of interferon status analysis in the study group showed a statistically significant 4-fold decrease in IFN α levels in group 2 newborns compared to the healthy group — 33.32 ± 0.91 pg/mL ($p < 0.05$). The analysis of antibodies to IFN α also showed a significant increase in their levels — up to 156.54 ± 15.8 pg/mL in group 2 compared to 92.43 ± 7.58 pg/mL in group 1 ($p < 0.05$). These results indicate activation of antibody synthesis to IFN α in newborns exposed to maternal COVID-19 infection during pregnancy. Additionally, an increase in IFN γ levels was observed — 2.9 times higher in group 2 compared to the healthy group — 23.8 ± 0.6 pg/mL ($p < 0.05$).

Thus, the study of interferon status in newborns during the first five days of life shows a clear imbalance in interferon synthesis. On the background of a 2.9-fold increase in IFN γ and a 1.7-fold increase in anti-IFN α , a 4-fold decrease in IFN α synthesis was observed in full-term newborns born to mothers with COVID-19.

Conclusion: As a result of our research, it was established that a disruption in the interferon synthesis system occurs in newborns born to mothers infected with COVID-19.

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O'ZBEK TILINING IZOHLI LUG'ATLARIDA ADABIYOTSHUNOSLIK TERMINLARINING STATISTIK TAVSIFI XUSUSIDA

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ANNOTATSIYA

Maqolada o'zbek tilshunosligida soha terminlarning leksikografik xususiyatlari, xususan, adabiyotshunoslik terminlari mikrosistemasining o'rganilganligi xususida so'z boradi. Har qanday fan sohasining rivojlanishi, takomillashishini ko'rsatib berishda soha terminlarini zamonaviy talablarga mos ravishda shakllantirish va ma'lum me'yoriy tartibga keltirish terminologiyaning asosiy maqsadi hisoblanadi. Shu maqsadda maqolada adabiyotshunoslik terminlarining statistik tavsifi va uni takomillashtirish borasida olib borilayotgan ishlar xususida so'z boradi.

Tayanch so'zlar: terminologiya, terminologik lug'atlar, terminlarning leksikografik tasnifi, izohli lug'at, adabiyotshunoslik terminlari lug'ati, lug'at tuzilishi, statistik tahlil, soha terminologiyasi, soha terminologiyasi taraqqiyoti.

O'zbek tilining boy imkoniyatlarini namoyon etuvchi izohli lug'atlar soha terminologiyasiga oid bir qator yangiliklar va o'zgarishlarni tahlil etishda asosiy manba hisoblanadi. Hozirgacha yaratilgan "O'zbek tilining izohli lug'at"lari tilimizning butun so'z boyligini emas, aksincha yaratilgan davrda keng iste'molda bo'lgan so'z boyligini aks ettiruvchi qimmatli manba hisoblanadi. Lug'at tuzuvchilar ana shu so'z boyliklarini to'plash va tasniflashni o'z oldilariga maqsad qilishgan.

Shu o'rinda H. Dadaboyev: "Har qanday tilning so'z boyligi u tarixiy yoki zamonaviy tusda bo'lmasin, insonlar tomonidan tuziladigan rang-barang lug'atlarda ma'lum darajada aksini topadi. Lug'at til so'z boyligini o'zida saqlovchi akkumulyator vazifasini bajaradi. Bugun muayyan tilshunoslikning qay darajada rivojlangani, takomil topgani ayni tilda yaratilgan lug'atlarning turi, miqdori va sifati bilan o'lchanmoqda"¹, - deb ta'kidlaganda ana shu maqsad nazarda tutilganligi ko'rinadi.

Ayni bunday jarayon uzoq yillik mashaqqatli mehnat mahsuli sifatida yuzaga keladi. O'zbek tilining bugungi kunga qadar yaratilgan izohli lug'atlari terminologiya sohasi uchun muhim manba bo'lish bilan birga soha terminologiyasida yechimini kutayotgan muammolarga aniq yechim topishda qo'l keladi.

¹ Dadaboyev H.A. O'zbek terminologiyasi. -Toshkent, 2019.

“O‘zbek tilining izohli lug‘at”larida mavjud adabiyotshunoslik terminlarini tasniflashda statistik tadqiqot metodidan foydalangan holda terminlarni o‘zaro solishtirishning bir necha parametrlarini belgilandi. Shunga ko‘ra “O‘zbek tilining izohli lug‘at”larida (1981, 2006-2008, 2020) mavjud adabiyotshunoslik terminlarini semantik, morfologik, struktur mezonlari statistik jihatdan tavsiflandi. Tahlil natijasida ularning “O‘zbek tilining izohli lug‘at”laridagi (1981, 2006-2008, 2020) umumiy sonidan kelib chiqqan holda o‘z qatlam va o‘zlashma qatlamga oid terminlar, adabiyotshunoslik terminlarining struktur tasnifi, sohada parallel qo‘llaniluvchi adabiyotshunoslik terminlari, boshqa sohalarda ham soha termini sifatida qo‘llaniluvchi terminlar kabi bir qator xususiyatlariga oydinlik kiritildi.

Dastlab adabiyotshunoslik terminlarining umumiy sonini berishda sohada foydalanib kelinayotgan H. Homidiy, Sh.Abdullayev, S.Ibrohimova “Adabiyotshunoslik terminlari lug‘ati” (Toshkent: O‘qituvchi, 1967) va D. Quronov, Z. Mamajonova, M. Sheraliyeva “Adabiyotshunoslik lug‘ati” (Toshkent: Akademnashr, 2013)laridagi terminlar miqdoridan kelib chiqildi. Bunga ko‘ra 1- lug‘atda (H. Homidiy, Sh.Abdullayev, S.Ibrohimova “Adabiyotshunoslik terminlari lug‘ati” (Toshkent: O‘qituvchi, 1967)) 536 ta, 2-lug‘atda (D. Quronov, Z. Mamajonova, M. Sheraliyeva “Adabiyotshunoslik lug‘ati” (Toshkent: Akademnashr, 2013)) 550ta adabiyotshunoslik terminlari berilganligi aniqlandi. Tasniflashning keyingi bosqichlarida ana shu terminlarning “O‘zbek tili izohli lug‘at” larida (1981, 2006-2008, 2020) berilishi va izohlanishiga e‘tibor qaratildi.

Statistik metod orqali sohada qo‘llanilib kelinayotgan adabiyotshunoslik terminlari “O‘zbek tilining izohli lug‘ati”da **ad.** pometasi bilan keltirilgan. Ularning berilishi izohli lug‘atlarning turli nashrlarida miqdor jihatdan turlicha berilishidan tashqari ba‘zi tafovutli holatlar kuzatildi. Buni bir nechta terminlar misolida ko‘rib o‘tish o‘rinli bo‘ladi. Masalan, “O‘zbek tilining izohli lug‘ati”(1981)da **kinoya, lirika, litota, metrik, munojot, musamman, oda, oktava, parallelizm, parema(paremiya), poema, poetika, proza, poeziya, realism, remarka, tragediya** kabi bir qator adabiyotshunoslik terminlari **ad.**pometasi bilan berilmagan. Izohli lug‘atning keyingi nashrlarida esa 1-nashrda **ad.** pometasi bilan berilgan **metonimik, mushoira, navoiyshunos, navoiyshunoslik, povest, saj, siymo, to‘qilma(to‘qima), xamsa** terminlarning umuman berilmaganligini ko‘rish mumkin. E‘tiborlisi shundaki, tasniflash jarayonida ba‘zi terminlar nafaqat adabiyotshunoslik sohasida, balki boshqa sohalarda ham soha termini sifatida qo‘llanilishi kuzatildi.

2 jildli O‘TIL	5 jildli O‘TIL	6 jildli O‘TIL
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Anteteza – falsafa, mantiqsunoslik	Anteteza – falsafa, mantiqshunoslik	Anteteza – falsafa, mantiqshunoslik
Bayon – tilshunoslik	Bayon – tarix	Bayon – tarix
Beshlik - tarix	Beshlik - tarix	Beshlik - tarix
Vazn – matematika, musiq	Vazn – matematika, musiq	Vazn – matematika, musiq
Giperbolik– matematika	Giperbolik – matematika	Giperbolik – matematika
Yechim – matematika	Yechim – matematika	Yechim – matematika
Metafora – tilshunoslik	Metafora – tilshunoslik	Metafora – tilshunoslik
Metonimiya– tilshunoslik	Metonimiya– tilshunoslik	Metonimiya– tilshunoslik
Murabba – matematika	Murabba – matematika	Murabba – matematika
	Metrik – matematika	Metrik – matematika
Pyesa – musiq	Pyesa – musiq	Pyesa – musiq
	Parallelizm – matematika, tilshunoslik	Parallelizm – matematika, tilshunoslik
	Tashxis – tibbiyot	Tashxis – tibbiyot
Tajnis – tilshunoslik	Tajnis – tilshunoslik	Tajnis – tilshunoslik
Trilogiya – musiq	Trilogiya – musiq	Trilogiya – musiq
To‘qilma (to‘qima) – biologiya	To‘qilma (to‘qima) – biologiya	To‘qilma (to‘qima) – biologiya
	Ekspozitsiya – musiq, kino san’ati, muzey	Ekspozitsiya – musiq, kino san’ati, muzey
	Sinekdoxa – tilshunoslik	Sinekdoxa – tilshunoslik

Jadvalda keltirilgan misollardan ko‘rinib turibdiki, terminologiyada ba’zi terminlar o‘zining izohlash chegarasidan kelib chiqqan holda turli soha tushunchalarini ifodalovchi terminlar sifatida namoyon bo‘ladi.

Adabiyotshunoslikka oid terminlarni statistik tasniflash shuni ko‘rsatdikki, ba’zi terminlar sohada odatda parallel ravishda qo‘llaniladi. Quyida izohli lug‘atlarning turli nashrlarda keltirilgan shu kabi terminlarni mazmunan o‘zaro bir – biriga tengligini misollarda ko‘rib o‘tamiz:

Nasr – proza, giperbola – mubolag’a, giperbolik – mubolag’ali, poema – she’riy asar, nazm – she’riyat – poeziya, epitet – sifatlash, antologiya – tazkira – memuar, komediya – hajviyot, personaj – qahramon, epizod – parcha, povest – qissa, istiora – majoz, metafora.

Adabiyotshunoslik terminlarini morfologik jihatdan tasnif qilganimizda terminlarning ot, sifat fe'l so'z turkumiga oid turlarini ko'rishimiz mumkin. Terminlarni morfologik tasniflashda ot so'z turkumiga oid terminlarning yetakchlik qilishiga guvoh bo'ldik.

Y.B. Borev o'zining "Эстетика. Теория литературы / Энциклопедический словарь терминов" ("Estetika. Adabiyot nazariyasi. Terminlarning ensiklopedik lug'ati") asarining so'zboshisida: "Без системы терминов никакая наука существовать не может", - дея қайд этган эди. Ма'lum bo'ladiki, terminlar sistemasiga ega bo'lmagan fan sohasi bo'lishi mumkin emas.²

Xulosa qilib shuni aytish mumkinki, "O'zbek tilining izohli lug'ati"da mavjud adabiyotshunoslik terminlarini statistik tavsiflash terminlardagi mavjud kamchilik va muammolar yechimini ishlab chiqish zarurligini ko'rsatadi.

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² Боров Ю.Б. Эстетика. Теория литературы / Энциклопедический словарь терминов. – М.: Асртель, 2003.

ZAMON KATEGORIYASINING GOMOGENLIK VA GETEROGENLIKKA MUNOSABATI

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Gomogenlik (yunoncha *homogenes*) (tarkibi yoki kelib chiqishi bo'yicha bir xil bo'lgan holat) bir xillik, o'xshashlik, statistik tanlamaning ma'lumotlari o'rtacha arifmetik yoki mediana atrofida to'plangan, kichik standart og'ish bilan namoyon bo'ladigan va ma'lumotlarning bir-biridan kichik farqini ko'rsatadigan xususiyat. Yoki uni ma'lum bir populyatsiya a'zolarining o'zaro o'xshashlik darajasi, bir xilligi tarzida ham ifodalash mumkin¹. Bu tushunchaga psixologik jihatdan yondashilganda statistik tanlamaning ma'lumotlari o'rtacha arifmetik yoki mediana atrofida to'plangan, kichik standart og'ish bilan namoyon bo'ladigan va ma'lumotlarning bir-biridan kichik farqini ko'rsatadigan xususiyat deb tushunish mumkin.

Kant falsafasida **bir jinslilik** prinsipiga ko'ra, tur tushunchalari bir-biri bilan umumiy bir narsaga ega bo'lishi kerak, bu ularni umumiy tushuncha bilan birlashtirishga imkon beradi².

Geterogenlik (*heterogenes*) tamoyili, o'z navbatida, umumiy tushuncha bilan birlashtirilgan tur tushunchalarining bir-biridan farqlanishini talab qiladi. Zamonaviy g'oyalarga ko'ra, bir xillik prinsipi bir xil bo'lmagan tamoyillarni yagona nazariya doirasida birlashtirishni taqiqlaydi. Ushbu tamoyilning buzilishi eklektizmga olib keladi³.

Geterogenlik tushunchasi turli fan sohalarida yo'nalish jihatidan turlicha, ammo g'oyaviy-mohiyat tomonidan bir-biriga yaqin mantiq bilan istifoda etiladi.

Xususan:

Fizika va ximiyada geterogenlik tushunchasi, ayniqsa, bir nechta fazalarni o'z ichiga olgan tizimlarga, ya'ni fizik jihatdan bir jinsli bo'lmagan (geterogen tizim) va fazalar chegarasida sodir bo'ladigan reaksiyalarga, masalan, geterogen katalizga nisbatan qo'llaniladi. Bu atamaning antonimi gomogen atamasi bo'lib, u o'z navbatida bir xil muhitni yoki bunday muhitdagi (ya'ni bir faza doirasidagi) reaksiyani, masalan, bir jinsli kataliz, bir jinsli reaksiyani bildiradi.

¹ Мещеряков Б. Г., Зинченко В. П. Большой психологический словарь. – С. 100. (– 632 с) <https://spbguga.ru/files/03-5-01-005.pdf>

² Философский словарь. Под ред. И.Т. Фролова. – М., 1991. – С. 96.

³ Философский словарь. Там же.

Genetikada bu atama biroz o‘ziga xos ma’noga ega va bir nechta barqaror birikmalarda qo‘llanadi.

Lisoniy birliklarning gomogen yoki giterogen qiymati esa ularning sathlararo munosabati bilan bog‘liq.

Odatda tilning qimmat jihatidan bir xil birliklarining yig‘indisi lisoniy sath sifatida qaraladi. Chunonchi, fonetik sath, morfologik sath, leksik sath tarzida. Ayrim olingan bir tildagi fonemalarning o‘zaro munosabati majmui fonologik sathni tashkil etgani holda, morfemalarning munosabat nisbati morfologik sathni birliklari sanaladi.

Lisoniy sath tushunchasi hozirgi tilshunosligimizda keng tarqalgan bo‘lsa-da, tilning sathlarga bo‘linishida bir xillik ko‘zga tashlanmaydi. Biroq aksariyat tilshunos olimlar tilning sathlarini quyidagi tartibda bo‘lishiga rag‘bat bildiradilar: 1) fonologik sath; 2) morfemik sath; 3) leksik sath; 4) morfologik sath; 5) sintaktik sath; 6) ustsintaktik (supersintaktik) sath kabi.

Bu sathlarning har biri o‘zining muayyan birliklariga ega: fonologik sathning birligi – fonema; morfologik sathning birligi – morfema; leksik sathning birligi – leksema; morfologik sathning birligi – so‘zshakl; sintaktik sathning birligi – sintaksema; ustsintaktik sathning birligi – matndir⁴.

“O‘zbek tili grammatik kategoriyalarini shakllarining bir sathga yoki har xil sathga mansubligiga ko‘ra ikkiga bo‘lish mumkin:

- a) gomogen shaklli kategoriyalar;
- b) geterogen shaklli kategoriyalar.

Gomogen shaklli kategoriyalar sifatida *kelishik, son, nisbat va o‘zgalovchi kategoriyalarni* ko‘rsatish mumkin. Bu kategoriyalarning tashkil etuvchilari faqat bitr sath (morfemika)ga tegishlidir. Shu boisdan ularga gomogen atamasini qo‘llash o‘rinli. **Kesimlik, bo‘lishli-bo‘lishsizlik, daraja, harakat tarzi kategoriyalari shakllari geterogen** shaklli kategoriyalar hisoblanadi. Chunki ularning tashkil etuvchi birliklari birdan ortiq sathga mansub bo‘ladi.

Misol sifatida fe‘lning bo‘lishli-bo‘lishsizlik kategoriyasini olib ko‘raylik. Har qanday fe‘l nutqda bo‘lishli, yoki bo‘lishsiz shaklda verballashadi. Ma’lumki, bo‘lishli shakl harakatning yuz bergan/berayotgan/beradiganligini, bo‘lishsiz shakl esa yuz bermagan/bermayotgan/bermaydigan harakatni ifodalaydi.

Ma’noni ifodalashda fe‘l bo‘lishli-bo‘lishsizlik maqomi bilan geterogen (har xil) tabiatlilik qiymatiga ega bo‘ladi, ya’ni turli sathga mansub lisoniy birliklar bo‘lib nutqda zohir bo‘ladi. Chunki bu ma’noni ifodalashda -ma, -may, -maslik morfologik ko‘rsatkichlaridan tashqari, na nomustaqil so‘zi ham ishtirok

⁴ <https://arxiv.uz/uz/documents/referatlar/tilshunoslik/morfemik-sathning-til-sathlari-orasidagi-o-rni>

etadi. Ba'zi ilmiy adabiyotlarda *yo'q, emas* inkor ifodalovchi so'zlarini ham shu kategoriya sirasiga kiritilgan. Bu fikrga, albatta, qo'shilish qiyin. Zero, bu so'zlar fe'l kesim vazifasida kelgandagina inkor ma'nosini shakllantiradi va bu doirasidan tashqariga chiqadi.

Garchi, nutqda o'qigani yo'qligini bilmayman tipidagi qurilmalarda yo'q so'zi qatnashsa-da, bu qolip o'qigani yo'q predikativ qo'shilmasining semantik transformatsiyasi hisoblanadi. Ko'rinadiki, baribir, yo'q so'zi fe'lning emas, balki kesimlikning inkor shaklidan nariga o'ta olmaydi.

Emas inkor shakli ham shunday xususiyat tabiatiga ega. Ba'zan undan qiyoslanayotgan ikki harakatdan o'zgalovchi shaklidagi fe'l bilan ifodalangan ish-harakatning inkorini ifodalash uchun foydalanilishi mumkinligi keltiriladi: *Kulib emas, yig'lab gapirdi. Yurishi emas, kulishi yoqadi*. Bu kabi birikuvlarda ham predikativ qo'shilmaning qisqaruvi namoyon bo'ladi: *Kulib gapirdi emas, yig'lab gapirdi. Yurishi chiroyli emas, kulishi yoqadi* kabi.

Ko'rinib turibdiki, daraja kategoriyasi sifatida qaralayotgan tizimning o'zini ham bir kategoriya sifatida emas, balki undan kattaroq butunlik sifatida qarashga ehtiyoj mavjud.

O'zbek tilshunosligida ham daraja ma'nosi «belgi darajasi» umumiy grammatik ma'nosiga ega bo'lib, u turli sathga mansub (geterogen) shakllar yordamida hosil qilinishi ta'kidlanadi: *go'zal-go'zalroq-juda go'zal*.

Ko'rinib turibdiki, xususiy grammatik hodisalarda u yoki bu tarzda qayd etilayotgan darajalanish hodisasi o'zini yangi muammo sifatida ko'rsatmoqda. Xullas, tilning fonologiya, leksika, so'z yasalishi va grammatika kabi sathlari nafaqat o'z tarkiblarida, balki o'zaro bog'lanishlarida ham darajalanish hodisalariga ega bo'lib, ularning o'ziga xos xususiyatlarini atroflicha o'rganish hozirgi tilshunoslik oldida turgan dolzarb muammodir⁵.

Shu ma'noda o'zbek tilining deyarli barcha sathlari birliklariga gomogenlik tamoyili qo'yilgan bo'lsa-da, ularni sinchiklab tadqiq qilish bu faraz ancha cheklanganlik xarakteriga ega ekanligini ko'rish mumkin. Chunonchi, tilning fonetika sathi faqat tovushlarni, morfologiya sathi so'zning tarkibiy qismlarini, leksikologiya esa so'zning shakl hamda semantik belgilarini o'rganishi bashorat qilinadi, ya'ni sathlarning aksariyatida gomogenlik qiymati ustun ekanligi uqtiriladi⁶.

⁵ Элмуродова Л. Н. Ўзбек тилида даража функционал-семантик майдони (белги даражаси микромайдони): филол. фан. номз. дисс. – Тошкент, 2011. – Б. 13-17.

⁶ Решетов В.В., Иброҳимов С. И., Турсунов У. Т., Камолов Ф. Қ. Ҳозирги ўзбек адабий тили. – Тошкент, 1957. – 392 б.; Ҳожиев А. ва бошқалар. Ҳозирги ўзбек адабий тили. – Тошкент: Ўқитувчи, 1980. – 448 б.; Ҳозирги замон ўзбек тили. Лексикология. Фонетика. Графика ва орфография. Морфология. Фахри Камол таҳрири остида. – Тошкент: Фан, 1957. – 514 б.; Ҳозирги ўзбек адабий тили. – Тошкент, 1976. (– 392 б.);

Ma'lum bo'ladiki, lisoniy sathlarni pastdan tepaga qarab qat'iy ravishda tartiblash mumkin. Har bir yuqori sath birligi o'zidan pastda turadigan sath birliklarining sintagmatik munosabatidan yuzaga keladi, demak, fonemalarning sintaktik munosabatidan morfem sath birligi – morfema paydo bo'ladi, morfemalarning sintagmatik munosabatidan esa morfemik sath birligi hisoblanadigan so'zshakl paydo bo'ladi, so'zshakl o'z navbatida, morfemalarga aniqrog'i morfem variantlarni vujudga keltiradi.

1. Til tizimidagi har bir sath birligi – fonema, morfema, leksema, so'zshakl, sintaksema, matn lisoniy birliklari (lingvistik) deyiladi.

2. Lisoniy birliklar lisoniy tizimdagi tutgan o'rniga ko'ra bir-biriga oppozitsion ikki xil munosabatda turadi. Ularni: 1) gomogen – bir sathga xos bo'lgan birliklar munosabati; 2) geterogen – turli sathlarga oid bo'lgan (sathlararo) birliklar munosabatiga ajratish mumkin.

3. Gomogen yoki gomogenlik birliklari munosabati.

Gomogen birliklar bir-biri bilan ikki xil munosabatga kirisha oladi:

1) sathdoshlik yoki paradigmatic munosabat; 2) diskretiv yoki ketma-ketlik munosabati.

Gomogen yoki qiymat jihatidan bir xil birliklarning ma'lum umumiy belgisi asosida bir guruhga (sathga) birlashuvi sathdoshlik munosabati hisobladi⁷. Lisoniy birliklarning bunday munosabatini belgilash uchun ko'proq umumiy semantik belgisi rol o'ynaydi.

Gomogen bo'lgan birliklar nutq jarayonida o'zaro ketma-ket bog'lanib, ma'lumot ma'lum axborot tashish uchun xizmat qiladi. Har bir lisoniy birlikning vazifasi ketma-ketlik (sintagmatik) munosabatga kirishishda namoyon bo'ladi. Nutq jarayonida ikkita birlikni hech vaqt bir yo'la talaffuz etish mumkin emas.

Muayyan cho'ziqlikka ega bo'lgan ikki va undan ortiq unsurlarning ketma-ket munosabati ketma-ketlik (sintagmatik) munosabat sanaladi. Masalan, *bolalarning* so'zshakli *bola+lar+ning* morfemalari bir qatorda ketma-ket joylashadi.

Sintaktik munosabat yordamida tilning bosh vazifasi kommunikativ vazifa amalga oshadi.

Geterogen – murakkablik darajasi bir xil bo'lgan lisoniy birliklar munosabatidan tashqari, turli sathga mansub, turli murakkablikdagi birliklar ham o'zaro munosabatga kirishadi. Murakkablik darajasi turli xil bo'lgan, ikki xil sathga mansub lisoniy birliklar munosabati pog'onali munosabat deyiladi. Bunday munosabatni "... dan tashkil

Шоабдурахмонов ва бошқалар. Ҳозирги ўзбек адабий тили. – Тошкент: Ўқитувчи, 1980. (– 351 б.); Сайфуллаева Р. ва бошқалар. Ҳозирги ўзбек адабий тили. – Тошкент, 2010. – 376 б.

⁷ <https://arxiv.uz/uz/documents/referatlar/tilshunoslik/morfemik-sathning-til-sathlari-orasidagi-o-rni>

topadi”, “tarkibiga kiradi” ifodasi bilan berish mumkin. Shunday qilib, morfologik sath birligi bo‘lgan so‘zshakl morfemik sath birligi bo‘lgan morfemalarning (morfemik variantlarning) o‘zaro sintagmatik munosabatidan tashkil topadi. Morfema (morfema varianti) esa so‘zshakl tarkibiga kiradi.

Lisoniy birliklarning murakkablik darajasi nisbiydir. Uning murakkab deb nom olinishi o‘zidan bir daraja quyi sath, birligiga nisbatandir. Masalan, morfemik sath birligi bo‘lgan morfemaning murakkab (qurilma, sistema) deb nom olinishi fonologik sath birligi bo‘lgan fonemaga nisbatandir. Morfema, o‘z navbatida, morfologik sath birligi bo‘lgan so‘zshakl uchun element, qurilish (konstruktiv) a‘zosi sanaladi. So‘zshakl morfemaga nisbatan murakkab, sintaksemaga nisbatan esa unsur (element) sanaladi⁸.

Morfologiya sathining geterogen belgilari borasida o‘zbek tilshunosligida L. Elmurodovanning nomzodlik dissertatsiyasida fikr yuritiladi:

“Asliy sifatlarda belgi: a) oddiy daraja; b) orttirma daraja; v) ozaytirma darajalarga bo‘lib tasnif etiladi.

Oddiy daraja hech qanday grammatik vositasiz ifoda etiladi. Unda darajaning umumiy ma’nosi belgining ortiq-kamligiga munosabatsiz shaklda xususiylashadi: *yomon, yumshoq, oriq, semiz, tor, yuksak, egri* kabi.

Orttirma daraja belgining meyoriy holatdan yuqoriligi, balandligini ifodalab, u darajaning umumiy ma’nosini «belgining odatdagi meyordan ortiqqligini ifodalash» yo‘sinida muayyanlashtiradi. Bu daraja maxsus morfologik ko‘rsatkichga ega bo‘lmaydi. Daraja ma’nosi ifodalovchisining geterogenligi mazkur darajada aniq ko‘rinib turadi. Umuman olganda, orttirma daraja quyidagi usullar vositasida voqelanadi:

1. **Fonetikaga oid usul.** Buning bir qancha ko‘rinishlari bor: a) *sap-sariq, beb-bemaza, ko‘m-ko‘k*; b) urg‘u olgan bo‘g‘inning cho‘zilishi: *u:zun, bala:nd, chiro:yli*.

2. **Leksikaga oid usul:** *juda go‘zal, g‘oyatda* zerikarli, *nihoyatda* o‘jar.

3. Belgining ortiq darajasi analitik usul bilan ham ifodalanadi. Bu shakl ikki qismli bo‘lib, birinchi qismda chiqish kelishigi ko‘rsatkichini qo‘shish bilan yuzaga keltiriladi: *qiziqdan qiziq, shakardan shakar*.

Ozaytirma daraja daraja umumiy ma’nosini «belgining meyordan pastligini ifodalash» ko‘rinishida namoyon qiladi. Bu usul ham ma‘noni ikki yo‘sin bilan yuzaga chiqaradi:

1. **Leksik yo‘sin:** *sal cho‘ziq, bir oz durust, xiyol ko‘k*.

⁸ Абдуазизов А. Ўзбек тили фонологияси ва морфонологияси. – Тошкент, 1994.

2. **Morfologik yo'sin: uzunroq, chog'roq, torroq**⁹.

Ma'lum bo'ladiki, o'zbek tilida grammatik ma'noni ifodalovchi ko'plab vositalar grammatik kategoriya sifatida qaralganidan juda ko'pgina erkin sintaktik birikmalar ham grammatik kategoriyaga nisbat beriladi va natijada darajaning morfologik ifodasi bilan boshqa nomorfologik hodisalar qorishtiriladi. Aslida o'zbek tilida mazkur ma'nolar turli sathlarda turlicha vositalar bilan ifodalanadi va ular bitta funksional-semantik maydonni tashkil etadi. Biz yuqorida tilga olgan geterogen shakllar mazkur nuqtai nazardan maxsus tadqiq etilmagan. Tilshunoslikdagi aytilgan kategoriyalar doirasidagi mavjud muammolar uni funksional-semantik maydon sifatida o'rganish asosidagina bartaraf etiladi¹⁰.

Bu talqinlar morfologik sath birliklarining gomogenlikka munosabati emas, balki mazkur sathning ichki belgilari tasnifi hisoblanadi: *kattaroq, ko'proq, ozroq* tarzidagi so'z formasining o'zgarishi uning boshqa sath darajasidagi qiymatiga ta'sir etmaydi. Ta'kidlanganidek, tilda zamon kategoriyasining grammatik shakllari temporallikning asosiy ko'rsatkichi sanaladi. Temporallik hodisasi uchun (zamon kategoriyasi uchun ham) falsafiy va fizik zamon o'lchamlari, shuningdek, tabiat hodisalari zamon hisobining ko'rsatkichlari sifatida xizmat qiladi. Zamon hisobi esa obyektiv nuqtadan boshlanadi. Bu so'zlovchi nutqining har bir bo'lagida oydinlashadi, ya'ni tilda grammatik shaklda voqelanadi.

A.V.Bondarko xulosasiga ko'ra temporallik – funksional-semantik struktura, unga zamon kategoriyasining grammatik shakllari va sintaktik strukturalar bilan bir qatorda leksik birikmalarning ko'p sonli kombinatsiyalari ham kiradi. “Temporallik kategoriyasi – temporal semantika va uni tilda ifodalashning turli vositalari sistemasining ikki tomonlama birligi, ya'ni funksional-semantik kategoriyadir¹¹.

Temporallikni tushunish uchun badiiy asarda, matnda zamonning qanday tasvirlanishi va idrok qilinishini aniqlab olish zarur. Real hayotda zamon bu – obyektiv vaqtdir. Real zamon doim oldinga – o'tmishdan kelajakka tomon siljib boradi. Shu zamonni inson o'z hissiyotlari va tasavvuridan kelib chiqib, har xil qabul qiladi.

Falsafada zamon kategoriyasi barcha narsa-hodisalarni bog'lovchi universal tashqi va ichki unsurlar sifatida belgilanadi, hodisalar realizatsiyasi, diskretlik, uzluksizlik, mutlaqlik, qiyosiylik, cheklilik va cheksizlik uni tavsiflaydi, uning harakati hamda o'zgarishini aniqlaydi. Fizikaviy vaqt o'lchov, qismlar hisob sifatida qabul qilinadi. U takroriylik, diskretlik (ketma-ketlik), metrik sifatlar (uzoqlik, aniqlik, bir tartibliqlik,

⁹ *Eslatma.* Rang-tus bildiruvchi ayrim sifatlarda qo'llanuvchi -(i)sh, -(i)mtir affikslari belgining kuchsiz darajasini bildirmaydi. Masalan, *oqish* so'zi oq rangning, *qoramtir* so'zi qora rangning kuchsiz darajasi emas, balki oq, qora bo'lmagan, lekin ularga o'xshash bo'lgan rang turlaridir.

¹⁰ Elmurodova L. Keltirilgan dissertatsiya. – B. 16–17.

¹¹ Бондарко А.В., Беляева У.И. Ко'rsatilgan manba. – С. 5.

davriylik) kabi xususiyatlarga ega. Zamonni his qilish – dunyo o‘lchamida fizikaviy ko‘rsatkichi emas, bu – zamonning qiyosiy va ifodaviy baholanishidir. O‘tmish, hozir va kelajak modusi bir-biri bilan bog‘liq va uzluksiz bo‘lishiga qaramay, fizikaviy vaqtning sharti (garovi) hisoblanadi. U qaytmaydigan, ortga siljmaydigan zamondir. Zamonning qiyosiy modusi esa o‘zgacha. Bunda hayotiy tushunishda alohida individ va jamoaning qarashlarida zamon qiyosiy shaklda hisobga olinadi, qabul qilinadi va baholanadi. Individual zamon, ya’ni lineer zamon bu – inson kechiradigan hayotning qismlari: butun hayoti, uning tug‘ilishi, bolaligi, o‘smirligi, yoshlik davri, ulg‘aygan payti, qariligi va boshqalar. Sikllilik va o‘zgarishlar moduslari spiralsimon shaklda kechadi, ularga yil fasllari: bahor, yoz, kuz va qish; fasllarning qismlari: kun, hafta, oy, yil; bir sutka qismlari: kunduz, kechqurun, tun kiradi. Har qanday madaniy-etnolingvistik makoniy xususiyatlar temporal o‘lchamdagi milliy-madaniy idrok orqali aks etadi. Masalan, insoniyat bahor – bolalik, yoz – o‘smirlik, yoshlik, kuz – ulg‘ayish, qish – keksalik sifatida tushunadi.

Zamon ko‘rsatkichlarini tadqiq qilgan Y.K.Lukyanova shunday yozadi: “Zamon kundalik ong darajasida mavhum falsafiy kategoriya yoki makon-zamon kontinuumidagi (zamonaviy fizikaviy terminlar) to‘rtinchi koordinata kabi mavhum tushunchadek tasavvur qilinmaydi. Inson zamonni idrok qilishga asoslangan subyektiv zamon kategoriyalari bilan fikrlaydi”¹².

Muallif hayot va zamon o‘rtasidagi munosabatlar mazmunida farqli tomonlarni chuqurroq ochib berishga harakat qiladi: “Zamon va umr leksemalari ko‘p hollarda birga ishlatiladi va bu bejiz emas: zamon, eng avvalo, muayyan inson umrining voqealari bilan dolzarbdir. Inson lisoniy ongi uchun zamonning sifat xususiyatlari xosdir: zamon – voqealar makoni sifatida umr uchun boshqa nom hisoblanadi, umr esa zamon kategoriyalari orqali idrok qilinadi va tasvirlanadi (onlar, lahzalar, davrlar...)”¹³. Zamonning temporal xususiyatlarini hamda uning fizik, badiiy va falsafiy zamonga nisbati badiiy va grammatik zamon bir-biridan farqlanishida, bu zamonlar ayrim mushtarakliklar borligida, fizik zamon Vektor nolidan boshlanishida, grammatik zamon bilan muayyan grammatik ishoralar bilan voqelanishida, badiiy zamonning grammatik zamonga o‘tishi ayrim shakllar vositasida namoyon bo‘lishida ko‘rinadi.

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¹² Лукьянова Ю.К. Восприятие времени в русской языковой картине // Русская сопоставительная филология: Лингвокультурологический аспект. – Казан: Казан гос. ун., 2004. – С. 150–155.

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TUG'MA YURAK NUQSONLARI:ULARNING ANATOMIK ASOSLARI VA TURLARI

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Annotatsiya:Ushbu maqolada tug'ma yurak nuqsonlarining anatomik asoslari, embriologik rivojlanish bosqichlari hamda ular asosida shakllanadigan anomaliyalar yoritilgan. Nuqsonlar sianotik va asianotik guruhlarga bo'linib, har birining klinik ko'rinishi, diagnostika usullari (EKG, EKO, MRT, angiografiya) va davolash yondashuvlari tahlil qilinadi. Eng ko'p uchraydigan tug'ma yurak nuqsonlari – VSD, ASD, PDA, Tetralogiya Fallot va katta tomirlar transpozitsiyasi kabi holatlar anatomik va fiziologik jihatdan chuqur tahlil qilinib, zamonaviy tibbiy yondashuvlar asosida baholanadi. Shuningdek, maqolada epidemiologik ma'lumotlar, xavf omillari va profilaktika choralariga ham alohida e'tibor qaratilgan.

Kalit so'zlar:tug'ma yurak nuqsonlari, VSD, ASD, PDA, Tetralogiya Fallot, embriologiya, sianotik nuqson, asianotik nuqson, yurak anatomiyasi, diagnostika, profilaktika, EKO, MRT.

Yurakning embrional rivojlanishi va anatomik asoslari

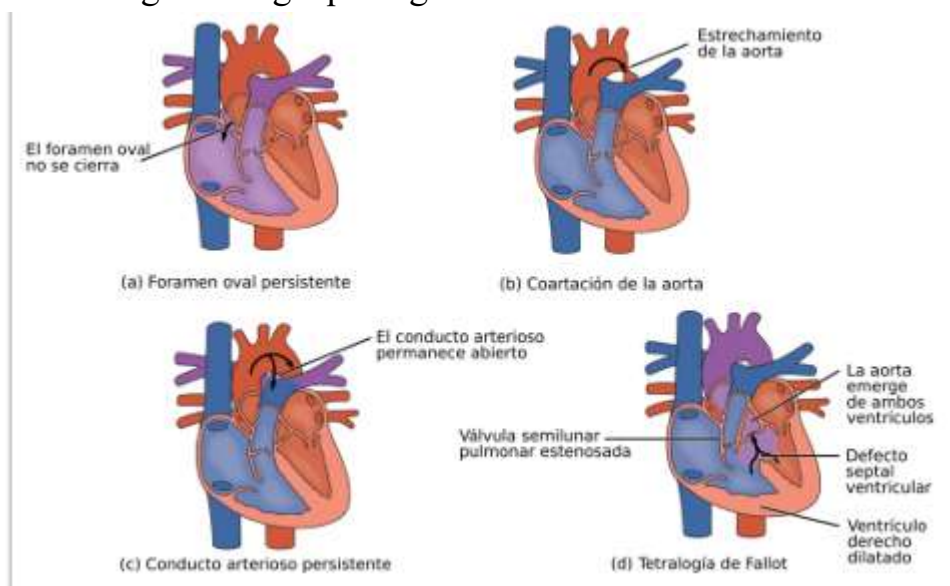
Yurak embrionik rivojlanishi homilaning 3-4 haftalaridan boshlab boshlanadi. Ilk bosqichda yurak tubi paydo bo‘lib, u asta-sekin aylanish va suvchi rebralar hosil bo‘lishi bilan to‘rt bo‘linmaga ajraladi: 2 atrium va 2 ventrikul. Atriyalar va ventrikullar o‘rtasidagi septalar hamda aorta bilan o‘pka arteriyasining chiqish yo‘llari muqarrar ravishda bo‘linishi lozim. Atrial septasiya (septum primum va sekundum) va ventrikulyar septasiya (muskulyar va membranoz qismlar) aniq paydo bo‘lishi kerak. Masalan, o‘ng va chap atriyalarni ajratuvchi septum primum va sekundum o‘sib, oralaridagi foramen ovale orqali organizmda oksigenatsiyalashgan qon almashinuvi ta‘minlanadi (tug‘ilishdan keyin normalda yopilishi kutiladi). Ventrikulyar septumning mushak qismi qovurg‘a qismidan yuqoriga tomon rivojlanib, kichik bo‘shliqqa (interventrikulyar foramen) ega bo‘ladi, so‘ngra endokard yostiqlichalardan kelib chiqqan membranali qism bilan to‘ladi. Aortika dastasi va o‘pka arteriyasini ajratuvchi spiralali septum ham bu bosqichda hosil bo‘lib, aorta va o‘pka arteriyasini to‘g‘ri joylarga yo‘naltiradi. Ushbu jarayonlardagi har qanday nuqson yurak tuzilishida anomaliyalarga olib kelishi mumkin.

Embriogenizmdagi yurak bo‘linishi tug‘ma nuqsonlarning asosiy sababidir. Masalan, septum primum va sekundum to‘liq hosil bo‘lmasa, atriyal septal defekt (ASD) paydo bo‘ladi; ventrikulyar septum to‘liq tugamasa, interventrikulyar septum defekti (VSD) yuzaga keladi. Shuningdek, spiralali septum noto‘g‘ri hosil bo‘lsa, aorta va o‘pka arteriyasi transpozitsiyasi yoki Truncus arteriosus kabi jarayonlar aniqlanadi. Homila ichidagi qon aylanishida foramen ovale va ductus arteriosus kabi vaqtinchalik o‘tish tarmoqlari bo‘lib, ular tug‘ilishdan keyin yopilishi shart. Ular ochiq qolishi ham ba‘zi nuqsonlarga sabab bo‘lishi mumkin. Yuqoridagi anatomik asoslar tushunilishi tug‘ma yurak nuqsonlarining xilma-xilligini va klinik namoyonini o‘rganishda juda muhimdir.

Tug‘ma yurak nuqsonlarining umumiy klassifikatsiyasi

Tug‘ma yurak nuqsonlari ikki katta guruhga bo‘linadi: sianotik (ko‘kargan) va asianotik (no-ko‘kargan) nuqsonlar. Sianotik nuqsonlar kislorodga boy qon bilan kislorodga kam qon aralashishiga olib keladi. Natijada to‘qimalarga yetayotgan kislorod miqdori kamayib, teri, tirnoq atrofida ko‘kargan rang (tsianoz) paydo bo‘ladi. Misol uchun, Tetralogiya Fallot, katta tomirlar transpozitsiyasi, pulmonal 6 1 9 atrezia, total anomal o‘pka venalari kirib kelishi kabi yurak anomaliyalari sianotik guruhga kiradi. Asianotik nuqsonlar esa odatda organizmga yetadigan kislorod miqdoriga jiddiy ta‘sir qilmaydi. Bunday nuqsonlarda bemor ko‘pincha ko‘karishsiz bo‘lishi mumkin; ko‘karganlik faqat holatingi og‘ir bo‘lganda yuz beradi. Asianotik nuqsonlarga interventrikulyar septum defekti (VSD), atriyal septum defekti (ASD), arterial dukt yopilishi (PDA), pulmonal yoki aortal klapan stenozlari va aorta

koarktatsiyasi kiradi . Ushbu umumiy klassifikatsiya yurak nuqsonlarining kislorod ta'minotiga ta'siriga qarab guruhlanishini ko'rsatadi.



halqa), (b) aorta koarktatsiyasi, (c) arteriozli dukt yopiq bo'lib qolishi (PDA), (d) Tetralogiya Fallot. Har bir yurak nuqsoni anatomik tuzilishga ta'sir qiladi; masalan, Tetralogiya Fallotda to'rt asosiy nuqson mavjud: interventrikulyar septumning nuqsoni, o'pka chiqish yo'lidagi torayish, o'ng bo'yрак mushaklarining gipotrofiyasi va aortaning "ustiga chiqishi". Ushbu diagramma tug'ma nuqsonlarning strukturaviy o'zgarishlarini ko'rsatib Tug'ma yurak nuqsonlarining ayrim turlari: (a) oval foramen yopilmay qolishi (uch sayyorada qo'shimcha, ularning klinik oqibatlarini tushunishda yordam beradi.

Tug'ma yurak nuqsonlarining asosiy turlari

Interventrikulyar septum defekti (VSD)

Ventrikulalar septumi bo'ylab teshik mavjud bo'lgan VSD tug'ilgan paytdan boshlab mavjud bo'ladi . Bu eng keng tarqalgan tug'ma yurak nuqsoni bo'lib, taxminan har 1000 ta chaqaloqdan 2–5 tasida uchraydi . VSD hisobiga chap yurakdan o'ng yurakka oqayotgan qon miqdori ortadi; kattaroq defektlarda bu shunt keng bo'lib, o'pka aylanmasi haddan tashqari ko'payishi, o'pka arterial bosimining oshishi va yurak yetishmovchiligining rivojlanishiga olib keladi . Kichik VSDlar ko'pincha alomat bermaydi va tug'ilishdan keyin mustaqil yopilishi mumkin . Klinika jihatidan katta VSDlarda bemorda yurakning chap bo'lmali og'ir ishlashi, congestive yurak yetishmovchiligi belgilari, tez-tez nafas olish va yaxshi bo'lmay qolish ko'rinadi. Auskultatsiyada parasternal mintaqada doimiy sistro'ladi-murali shovqin eshitiladi. Diagnostika asbob-uskunalar yordamida defekt joyi va kattaligi aniqlanib, ehtiyoj bo'lsa, yorilgan septum sifatida plastik yoki kateter orqali yopinishi tavsiya etiladi.

Atrial septum defekti (ASD)

Atriyalar oralig'ida ochiq devor hosil bo'lgan holat ASD deb ataladi . Bu ham keng tarqalgan CHD turi bo'lib, asosan septumning o'rta qismida joylashgan sekundum tipida uchraydi (ASDlarining taxminan 80 foizi) . Atrial septumda ochiq joy bemorda chap atriyadan o'ng atriya qonning o'tishiga imkon beradi . Natijada o'ng yurak bo'lmali hajmi va bosimi ortadi, o'pka aylanishi oshadi. Katta ASDlar uzoq muddat qoldirilsa o'ng bo'yni qalinlashishi (gipertrofiya), o'pka arterial bosimining ko'tarilishi kuzatiladi. Bemorlar bolalikda ko'pincha simptomlarsiz bo'lishi mumkin, ammo kattaroq defektlarda kelajakda tez charchash, yurak ritmi buzilishi va yurak yetishmovchiligi belgilariga olib keladi. Kichik ASDlar esa kattalarga qaraganda kamroq simptom beradi. Diagnostikada EKO orqali defekt aniqlanadi; katta ASDlar kateter orqali plastik yopinishi yoki operativ tuzatish talab qilinadi .

Arteriozli dukt yopiq bo'lib qolishi (PDA)

Fetal davrda aorta bilan o'pka arteriyasini bog'laydigan ductus arteriosus tug'ilishdan keyin ochiq qolsa, PDA rivojlanadi . Normalda tug'ilgach bu aralaqo'm yopilishi kerak, ammo PDAda qon aortadan o'pka arteriyasiga doimiy yo'l topadi. Natijada yurakda chapdan o'nga yo'nalishdagi shunt paydo bo'lib, o'pka aylanishi haddan tashqari ortadi . Kichik PDAlarda faqat stetoskopda „ziriq-ziriq“ ovoz (murakkab tok shovqin) eshitiladi, katta PDAlar esa chaqaloqda yurak yetishmovchiligi belgilariga (tez tebranish, og'ir nafas olish) olib keladi. Davolashda tug'ruqdan keyin erta bosqichda prostaglandinlar yordamida ductus vaqtincha ochiq ushlanib, keyinchalik kateter orqali kichik implant yoki jarrohlik yopinishi tanlanadi.

Pulmonar klapan stenozisi

Pulmonal stenozida o'ng yurakdan o'pka arteriyasiga chiqish oldidagi klapan torayadi, natijada o'ng ventrikul katta bosim bilan qon oqizishi kerak bo'ladi . Bu holatda o'ng yurak qismi gipertrofiyalanadi. Stenoz darajasi yengildan og'irgacha o'zgaradi: yengil stenozlarda simptom bo'lmasligi yoki faqat stetoskopda shovqin paydo bo'lishi mumkin, og'ir stenoz esa nafas qisishi, ko'karganlik va yurak yetishmovchiligi belgilari bilan namoyon bo'ladi . Davolashning asosiy usuli — kateter bilan valvuloplastika yoki jarrohlik klapan plastikasi bo'lib, bu oqimni kengaytirishga imkon beradi.

Aorta koarktatsiyasi

Aorta koarktatsiyasida aortaning ma'lum bir qismi torayadi, odatda son arterial chiqishi yaqinida . Natijada chap yurak kattaroq kuch bilan qon quvurtirishi kerak bo'ladi. Klinik jihatdan bu qon bosimining yuqori va pastki a'zolarida farqiga olib keladi: yuqori qismda gipertenziya, oyoqlarda esa qon oqimi cheklanishi tufayli past puls va sovuq oyoqlar kuzatiladi. Kuchli koarktatsiyali chaqaloqlarda erta yoshda yurak yetishmovchiligi simptomlari (nafas qisilishi, ovqat yeyishda qiyinchilik) paydo

bo'ladi. Operativ usulda koarktatsiyali segmentni kesib o'tib, bog'lash yoki protkanozni stent bilan kengaytirish tavsiya qilinadi .

Tetralogiya Fallot

Tetralogiya Fallot – eng keng tarqalgan sianotik tug'ma yurak nuqsonlaridan biri. U to'rt asosiy anatomik o'zgarishni o'z ichiga oladi: interventrikulyar septumning keng defekti (VSD), o'ng bo'yni chiqish yo'lidagi stenoz yoki atrezia, o'ng ventrikul mushaklarining qalinlashishi va aortaning ikki yurakdan ham chiqishiga moyilligi (to'g'ri joylashmagan holda ustiga chiqishi) . Natijada yurakka kirayotgan qisman oksigenatsiyalangan qon kislorod kam bo'lgan qon bilan aralashib ketadi, bu esa bemorda bolalikdan ko'karish (tsianoz) va “tet-spel” episodlariga olib keladi. Birinchi yilda bemorlarda ayniqsa yig'loq, siydik chiqarish va holat o'zgarishi bilan kuchayuvchi sianoz epizodlari kuzatilishi mumkin . Tetralogiya 10 23 3 24 Fallot CHDning 7–10 foizini tashkil etib, sianotik defektlar orasida eng tez-tez uchraydi . Davolash jarrohlik bo'lib, odatda chaqaloqning ilk 6 oyida yurakni butunlay rekonstruksiya qilish amalga oshiriladi; shuningdek, vaqtincha palliyativ shunt usullari ham qo'llanilishi mumkin.

Katta tomirlar transpozitsiyasi (TGA)

Dextro-transpozitsiyada aorta o'ng ventrikuldan, pulmonar arteriya esa chap ventrikuldan chiqadi . Buning natijasida organizm va o'pka aylanishlari bir-biridan butunlay ajralib ketadi: o'ng yurakka kelayotgan deoksigenlangan qon butunlay organizmga, chap yurakka kelayotgan oksigenlangan qon esa faqat o'pka aylanishiga yuboriladi. Tug'ilgach bemorda darhol chuqur sianoz (ko'karganlik) yuzaga keladi, chunki organizmga yetadigan qon kisloroddan mahrum bo'ladi . Hayot uchun zarur bo'lgan ozuqa nafas olish yo'li orqali faqat foramen ovale yoki PDA kabi o'tish joylari ochiq bo'lsa amalga oshadi. Shuning uchun ushbu nuqsonni tug'ilishdan keyin darhol aniqlab, prostaglandin yordamida ductus arteriosusni saqlab qolish va keyinchalik aorta va pulmonar arteriyani qayta joylashtirish (arterial switch operatsiyasi) zarur.

Diagnostika usullari

Tug'ma yurak nuqsonlarini aniqlashda bir nechta tekshiruvlar qo'llaniladi. Elektrokardiogramma (EKG) yurakning elektr faolligini o'lchab, yurak bo'linmalarining o'lchami va impuls o'tkazuvchanligini baholaydi . Masalan, ba'zi nuqsonlarda o'ng yoki chap bo'yni kengayishi va gipertrofiya EKGda aks etadi. Rentgenografiya orqali yurakning kattaligi, shakli va o'pka tomirlari namoyishi tekshiriladi . Kattalashgan yurak soyasi yoki o'pka qon aylanishining ortishi nuqson darajasini ko'rsatishi mumkin. Eng asosiy tekshiruv — ehokardiografiya (EKO) bo'lib, u ultratovush yordamida yurak anatomiyasini va funksiyasini batafsil ko'radi . Transstorakal yoki transesophageal EKO yordamida septal defektlar, klapan anomalilari

va aralash anomaliyalar aniqlanadi. Murakkab holatlarda kardiyak MRI yoki KT qo'llanilib, 3D tarzda yurak va tomirlar tuzilishi ko'riladi. Kateterizatsiya va angiografiya invaziv tekshiruv sifatida qondagi bosim o'lchovi va kontrast bilan yurak kameralari hamda tomirlarni tasvirlashga imkon beradi. Xulosada, to'liq diagnostika yurak tuzilishi va oqimi haqidagi ma'lumotlarni birlashtirgan holda, davolash strategiyasini belgilashga yordam beradi.

Davolash yondashuvlari

Tug'ma yurak nuqsonlarining davolash usuli anomaliyaning turiga va og'irligiga bog'liq. Konservativ davolash sifatida yurak yetishmovchiligi va aritmiyalarning belgilari dori vositalari bilan boshqariladi. Masalan, ACE ingibitorlari, beta-blokerlar va diuretiklar yurakning ishini yengillashtiradi, ortiqcha suyuqlikni chiqarib, yurak yukini kamaytiradi. Arteriozli duktni yopish uchun tug'ruqdan oldin yoki keyingi fazada indometatsin singari dori beriladi. Intervension kateter usullari orqali ham ko'plab tuzatishlar mumkin. Kichik yoki o'rta o'lchamdagi ASD va VSDlar kateter yordamida maxsus implant bilan yopinishi (ochiq yurak operatsiyasiz) mumkin. Bundan tashqari, klapan stenozlarini balonli 34 4 valvuloplastika bilan kengaytirish yoki aorta koarktatsiyasini stentlash kabi manipulyatsiyalar mavjud. Jarrohlik yondashuvlari eng ko'p qo'llaniladigani bo'lib, murakkab rekonstruktiv amaliyotlar talab qilinadi. Masalan, Tetralogiya Fallotni va TGAni bir martalik rekonstruksiya qilish, HLHS uchun bosqichma bosqich (Norvud – Glenn – Fontan) operatsiyalari bajariladi. Agar tug'ma nuqsoni tuzatib bo'lmaydigan darajada og'ir bo'lsa, yurak transplantatsiyasi tavsiya qilinadi. Umuman olganda, zamonaviy davolash usullari yordamida ko'p bemorlar bir marta yoki bir nechta protseduralardan so'ng odatdagidan farqli bo'lmagan hayot kechirishi mumkin.

XULOSA

Tug'ma yurak nuqsonlari pediatriyada eng ko'p uchraydigan tug'ma kasalliklar hisoblanadi. Ularning asosiy sababi homila davridagi yurak strukturasi rivojlanishidagi nuqsonlardir. Sianotik va asianotik guruhlariga bo'lib tasniflanadigan bu nuqsonlar yurakning aniq anatomik o'zgarishlari bilan namoyon bo'ladi. Zamonaviy diagnostika usullari (EKG, EKO, MRT, angiografiya) yordamida ko'plab yurak nuqsonlarini homiladorlikda ham aniqlash va tug'ilishdan keyin tezkor aralashish imkoniyati yaratilgan. O'z vaqtida qo'llangan jarrohlik yoki kateter intervensiyasi tufayli bemorlar kattalikda sog'lom holatda yashay oladi. Epidemiologik tadqiqotlar CHD tarqalishi va xavf omillarini o'rganib, oldini olish choralari kuchaytirishga hissa qo'ymoqda. Tug'ma yurak nuqsonlarini yetarlicha chuqur o'rganish va barqaror profilaktika choralari ko'rish natijasida bolalar o'limi va kasalliklarini kamaytirishga erishish mumkin.

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METHODOLOGY FOR USING MULTIMEDIA APPLICATIONS IN TEACHING ENGLISH TO PUPILS OF PRESCHOOL EDUCATIONAL ORGANIZATION

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Annotation:

The article outlines a pedagogical methodology for the intentional and developmentally appropriate integration of multimedia applications in teaching English to preschool pupils. The core focus is on aligning digital tools with the developmental needs of young learners to optimize language acquisition.

Keywords: *pedagogical principles, age-appropriateness, multimedia applications, PPP model (presentation, practice, production), play-centric design, interactive storybooks, vocabulary builders, sing-along applications, communication simulators, linguistic goals.*

The contemporary educational landscape is inextricably linked with digital technologies. For preschool educational organizations, this presents a unique opportunity to revolutionize early language acquisition. Teaching English to young learners, aged 3 to 6, requires a specific approach that aligns with their developmental characteristics: short attention spans, a natural propensity for play, and a sensory-based learning style. Multimedia applications, when implemented through a carefully structured methodology, can transform the process of learning English from a formal lesson into an engaging, interactive, and highly effective adventure. Before selecting any application, educators must adhere to core pedagogical principles to ensure technology enhances rather than hinders learning. Multimedia applications must be a tool within the educator's arsenal, not a replacement for teacher-pupil interaction. The teacher remains the facilitator of learning, using the app as a catalyst for further communication, play, and real-world application.

It is needed to pay attention to the *principle of age-appropriateness* as well as content and interface must be tailored to preschoolers. This means simple Navigation such as large buttons, intuitive swipe or tap commands, and minimal text.

—high-quality visuals and audio: bright, clear graphics and authentic, native-speaker pronunciation.

—play-centric design: learning should be disguised as a game, with rewards, puzzles, and characters that children can relate to.

Adhering to health guidelines, multimedia activities should be short, typically 5-10 minutes per session, and integrated as a part of a larger lesson block that includes physical movement, hands-on activities, and social interaction. In addition to that, every use of an application must have a defined linguistic goal, such as recognizing colors, learning the names of animals, or understanding a simple greeting. The activity should be purposefully chosen to meet a specific objective from the curriculum.

Methodological Framework: The PPP Model with a Multimedia Twist

A well-established teaching model that fits perfectly with multimedia integration is the PPP model: Presentation, Practice, Production. This model can be effectively adapted.

1. Presentation (Introducing the Target Language):

Traditional Method: The teacher shows flashcards of animals and says their names.

Multimedia-Enhanced Method: The teacher begins by playing a short, animated video from an app like Super Simple Songs or Pinkfong, featuring a song like “Old MacDonald Had a Farm.” The video presents the vocabulary (cow, pig, sheep) in a vibrant, memorable context with music and movement. The teacher pauses the video to point and repeat key words, ensuring attention is focused.

2. Practice (Controlled Use of the Language):

Traditional Method: Children repeat after the teacher, or point to the correct flashcard.

Multimedia-Enhanced Method: The teacher now uses an interactive application. For example, an app may display a farm scene and ask, “Where is the cow?” The child taps the cow, and the app provides positive reinforcement (“Good job! Cow!”). This stage offers controlled, low-risk practice with immediate feedback. It can be done as a whole-group activity using an interactive whiteboard, allowing the teacher to guide the interaction and encourage choral responses.

Multimedia applications can be categorized to target different language skills:

1. **Interactive Storybooks:** Apps that read stories aloud, highlighting words as they are spoken. They allow children to touch objects on the screen to hear their names. This develops listening comprehension, vocabulary, and phonemic awareness.

2. **Vocabulary Builders:** Game-based apps focusing on specific lexical sets (food, clothes, toys). These often include matching games, puzzles, and “find the object” activities that make memorization fun.

3. **Sing-Along and Rhyme Applications:** Apps featuring a library of English children’s songs with karaoke-style lyrics and animations. Music is a powerful mnemonic device for young learners, aiding in the natural acquisition of rhythm, intonation, and chunks of language.

4. Simple Communication Simulators: Apps that use characters to model basic dialogues (e.g., “Hello, what’s your name?” “My name is...”). Children can record their own voice repeating the phrases, fostering speaking skills in a non-threatening environment.

The market is saturated with educational apps, making careful selection crucial. Educators should look for apps that:

- Have a Strong Pedagogical Foundation: The app should be designed with clear learning goals in mind.
- Offer Customization: The ability for the teacher to select specific vocabulary sets or difficulty levels.
- Are Ad-Free and Safe: The digital environment must be secure, with no links to external websites or in-app purchases.
- Encourage Active Participation: The best apps require more than passive watching; they demand tapping, dragging, speaking, or singing.
- Provide Positive Reinforcement: Feedback should be encouraging, focusing on effort rather than just correct answers.

The success of this methodology hinges entirely on the teacher. Their role evolves into that of a: *Curator: Selecting the most appropriate applications that align with the curriculum; * Facilitator: Introducing the activity, managing the technology, and ensuring all children are engaged. *Bridge Builder: Connecting the digital activity to the physical world. After using a farm animal app, the teacher should transition to a physical game with toy animals, or a song with gestures, solidifying the learning. *Observer and Assessor: Noting which children are struggling or excelling during the digital activity to inform future instruction and provide individualized support.

In conclusion, the methodology for using multimedia applications in teaching English to preschoolers is not about simply handing a child a tablet. It is a deliberate, structured approach that leverages technology to create a rich, multi-sensory learning environment. By grounding the use of apps in sound pedagogical principles, integrating them strategically within a lesson framework like PPP, and understanding that the teacher is the central figure in the process, preschool educators can harness the power of multimedia to make first encounters with the English language joyful, memorable, and highly effective. This thoughtful integration prepares children not only for future language success but also for navigating an increasingly digital world.

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THE TAPESTRY OF TEXT: WEAVING COHESION AND COHERENCE INTO MEANINGFUL WRITING

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ANNOTATION:

Every successful piece of writing, from a novel to a technical report, relies on two fundamental principles to guide the reader from confusion to comprehension: cohesion and coherence. While often used interchangeably in casual discourse, these terms represent distinct layers of textual unity. Understanding their individual roles, and more importantly, their complex relationship, is crucial for any effective writer. Simply put, cohesion is the visible stitching that holds the sentences together, while coherence is the underlying design that makes the entire tapestry meaningful. The central challenge, or the "problem of correlation," lies in the fact that a text can be rich in one yet poor in the other, leading to a breakdown in communication.

Keywords: logical consistency, thematic unity, completeness, world knowledge, schemas, illusion of unity, high cohesion, low coherence.

Cohesion is the grammatical and lexical machinery operating on the surface of a text. It creates tangible links between words, phrases, and sentences. Linguists, primarily following the model of Halliday and Hasan, categorize cohesion into several types:

1. Reference: This involves using words that point to something else in the text for their interpretation. It's a verbal "pointing finger."

— Personal Reference: Pronouns like he, she, it, they, and possessives like his, her, their. (e.g., "Maria finished the report. She submitted it immediately.")

— Demonstrative Reference: Words like this, that, these, those, which signal proximity. (e.g., "The company faced significant losses. This led to a restructuring.")

— Comparative Reference: Words like same, other, similar, different, which create links through comparison. (e.g., "His first argument was compelling. The next one was even stronger.")

2. Conjunction: This type of cohesion uses linking words to express logical relationships between parts of a text. It tells the reader how ideas connect.

— Additive: and, furthermore, in addition.

— Adversative: but, however, on the other hand.

— Causal: because, therefore, as a result.

— Temporal: then, next, finally, subsequently.

3. **Lexical Cohesion:** This is achieved through vocabulary choice, creating a network of related words.

Repetition: Directly repeating a key word or phrase. (e.g., “The problem was identified. Solving the problem required innovation.”)

Synonymy/Antonymy: Using words with similar or opposite meanings. (e.g., “The task was difficult. The challenge required immense focus.”)

Hyponymy: Using general (superordinate) and specific (hyponym) terms. (e.g., “The furniture was antique. The armchair was particularly valuable.”)

Collocation: Using words that frequently occur together based on convention. (e.g., “scientific breakthrough,” “heavy rain”).

4. **Substitution and Ellipsis:** These are more grammatical in nature.

Substitution: Replacing a word or phrase with another word like “one, do, or so”. (e.g., “I need a new phone. This old one is broken.”)

Ellipsis: Omitting a word or phrase that is understood from the context. (e.g., “Who wants tea?” “[I] Do”). These devices are the writer’s toolbox for creating a smooth, flowing text at the sentence level. They are the explicit signals that prevent writing from feeling like a disjointed list of statements.

If cohesion is the thread, coherence is the pattern woven from it. Coherence is not a feature of the text itself but a mental phenomenon experienced by the reader. It is the perception that the text makes sense as a whole, that it has a logical flow and a unified purpose. Coherence is built upon:

— **Logical Consistency:** Ideas are arranged in a rational order, such as cause-and-effect, problem-solution, or chronological sequence. The reader can follow the writer’s train of thought.

— **Thematic Unity:** The text has a clear topic or thesis that is developed and maintained throughout. Every paragraph and sentence contributes to this central theme.

— **Completeness:** The text provides sufficient information for the reader to make necessary inferences without being overwhelmed by irrelevant details.

— **Use of World Knowledge and Schemas:** Coherence heavily relies on the reader’s ability to bring outside knowledge to the text. A recipe’s instructions (“Chop onions. Heat oil.”) are coherent because we activate our “cooking schema” to fill in the gaps. The fundamental problem is that cohesion and coherence do not have a guaranteed one-to-one relationship. The presence of cohesive devices does not automatically create a coherent text, and a text can be coherent with minimal cohesion.

The Illusion of Unity: High Cohesion, Low Coherence

A text can be grammatically perfect, filled with pronouns, conjunctions, and repetition, yet be utterly nonsensical. This demonstrates that cohesion is a necessary but not

sufficient condition for coherence. For instance: “The economic policy was implemented. It was designed to curb inflation. However, inflation continued to rise. This surprised the ministers because their model predicted a different outcome. Furthermore, the data was rechecked.”

Analysis: This paragraph is highly cohesive. Yet, it lacks a coherent argument. It simply states a sequence of events without explaining the failure, exploring causes, or drawing a meaningful conclusion. The cohesive devices create an illusion of connection, but the underlying logic is absent.

Conversely, a text with few explicit cohesive links can be perfectly coherent if the reader can easily infer the logical connections based on context and shared knowledge. For example (from a novel): “*The train arrived. The platform was empty. A single light flickered. Wind whipped through the deserted station.*”

Analysis: There are no conjunctions or pronouns linking these sentences. However, the reader effortlessly constructs a coherent scene—a bleak, lonely arrival. The coherence comes from our knowledge of train stations and the cumulative effect of the imagery (empty, flickered, whipped, deserted). The logical connection is implied, not stated.

In conclusion, the correlation between cohesion and coherence is not automatic; it is managed by the writer. The problem for the writer is to avoid mistaking one for the other. Over-reliance on cohesive devices can lead to clumsy, repetitive prose that lacks a clear point—a text that is “well-connected” but meaningless. Under-reliance can place too much burden on the reader, potentially leading to ambiguity. Therefore, effective writing requires a dual focus. First, the writer must construct a coherent framework—a solid, logical structure of ideas. Second, they must use cohesive devices strategically to signpost that structure, guiding the reader smoothly through the argument or narrative. The goal is not to maximize cohesion, but to use it judiciously to illuminate the pre-existing coherence, ensuring that the reader sees not just the individual threads, but the beautiful, intelligible tapestry they are meant to form.

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“NODIRABEGIM” - O‘ZBEK ADABIYOTI TARIXIDA YORQIN SHAXS

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Annotatsiya: Mazkur maqolada XIX asrda Qo‘qon xonligining madaniy hayoti shakllanib, taraqqiy etgan davrda muhim o‘rin egallagan o‘zbek shoirasi va ma‘rifatparvar ayol Nodirabegimning hayoti hamda ijodiy merosi keng yoritilgan. Unda shoirani yetishtirgan ijtimoiy-madaniy muhit, uning adabiy yo‘li va ijodiy tamoyillari, shuningdek, davlat hayotidagi faol ishtiroki tahliliy yondashuv asosida ko‘rib chiqilgan.

Maqola Nodirabegimning nafaqat she‘riyatdagi o‘rni, balki ma‘rifat targ‘ibotchisi sifatidagi faoliyati orqali o‘z davrining madaniy taraqqiyotiga qo‘shgan hissasini ochib beradi. Uning ijodi orqali ayolning jamiyatdagi mavqei, fikr erkinligi va ma‘naviy yetukligi kabi masalalar ham nazardan chetda qolmagan.

Kalit so‘zlar: Shoir, Nodirabegim, Mohlaroyim, maktab ta‘limi, Qo‘qon xoni Umarxon, g‘azal, she‘riyat, o‘zbek va tojik tillari, taxallus, abadiylashtirish.

Farg‘ona vodiysi Markaziy Osiyoning qadimiy madaniy o‘choqlaridan biri sanaladi. Jumladan, Qo‘qon xonligi davridagi ilm-fan va madaniyat taraqqiyoti bunga misol bo‘ladi. Qo‘qon xonligida o‘z davrida tarix, adabiyot, hattotlik va boshqa ko‘plab fan yo‘nalishlari, san‘at rivojlanib kelgan. Ayniqsa, adabiyot sohasi juda taraqqiy etgan. Ushbu tarixiy jarayonga ichki va tashqi omillar o‘z ta‘sirini ko‘rsatgan albatta. Mazkur mintaqa adabiyoti taraqqiyoti masalasi o‘rganilganda Qo‘qon adabiy muhiti, xususan Nodirabegim ijodiy faoliyatini tadqiq etish izlanuvchilarni ko‘p murojaat etgan mavzularidan hisoblanadi. Bu bejiz emas albatta. Chunki bugungi kunda vatanimiz yosh avlodlarini zamon talablari asosida yetuk inson etib tarbiyalashda adabiyot, musiqa va san‘atning roli, bu sohalarda nom qozongan buyuk ajdodlarimiz ilmiy merosini o‘rganish, undan yangi mazmunda ilhom olish, foydalanish dolzarb ahamiyat kasb etmoqda.

Bizga ma‘lumki, sharq adabiyoti tarixida nafaqat iste‘dodli shoir va adiblar, balki ko‘plab shoiralar, maktabdor otinbibilar ham yetishib chiqqanligi ma‘lum. Anashunday o‘z zamonasining yetuk shoiralaridan biri, ulkan iste‘dod sohibasi, XIX asrning birinchi yarmida yashab ijod etgan mashhur o‘zbek shoirasi Mohlaroyim – Nodirabegim hisoblanadi. Mazkur iste‘dodli shoir adabiyotimiz tarixida Nodira, Komila, Maknuna taxalluslari bilan o‘zbek va tojik tillarida she‘rlar ijod etib, keng

qamrovdagi rang barang va boy poetik ijodiy merosi bilan nafaqat o'zbek balki tojik xalqlari qalbidan o'chmas joy olgan. Nodiraning ijodi o'sha davrdagi o'zbek adabiyotining Maxmur, Gulxaniy, G'oziy, Uvaysiy kabi ilg'or namoyondalari ijodiga hamohang tarzda rivojlangan. Shoir o'z asarlarida Navoiy, Fuzuliy kabi she'riyat ustozlarining hayotbaxsh mavzular taraqqiyotini davom ettirdi. Nodira yashagan davr adabiy muhiti, zukko shoiraning o'z zamonasida madaniyat va ma'rifatning ravnaqi yo'lida olib borgan ulkan ishlari haqida davr tarixiy va adabiy manbalari boy ma'lumotlar beradi. Xususan, Hakimxonto'raning "Muntaxabut-tavorix", Fozilbek Otabekning "Mukammal tarixi Farg'ona", Ishoqxon Ibratning "Tarixi Farg'ona" va boshqa manbalar bunga misol bo'ladi.

Ma'lumotlarga ko'ra Nodira 1792-yil bahor faslining Navro'z bayrami arafasida, hijriy 1206-yil xut oyining chorshanba kunida Andijon viloyatining qadimgi Chinortagi guzaridan uncha uzoq bo'lmagan Rahmonquli xonadonida dunyoga kelgan. Otasi Rahmonquli- minglar urug'idan bo'lib, Qo'qon xoni Olimxonning tog'asi bo'lgan va Olimxon tomonidan Andijon hokimligiga tayinlangan. Onasi – Oyshaxonim ham o'z davrining aqlli va zukko ayollaridan edi. O'zining oilaviy silsilasiga ko'ra ushbu oila ham Bobur nasliga mansub bo'lgan [1:316-317]. Bo'lajak shoiraning Mohlaroyim ismi buvisi Sitoraxonim tomonidan qo'yilgan. Lekin biz uning "Nodira", "Maknuna", "Komila" kabi taxalluslari mavjudligidan xabardormiz Aynan uning "Nodira" taxallusi uning yoshlik yillari bilan bog'liq. Chunki Mohlaroyim oilada yolg'iz farzand bo'lgan va onasi Oyishaxonim sevimli qizini "yolg'izim" deyishdan ko'ra uni ko'proq "Nodiram" deb chaqirar edi. Keyinchalik xonadondagi katta-kichiklar, hatto otasi ham qizchasini shunday erkalatadigan bo'ldi. Mohlaroyim yoshligidan har narsaga qiziquvchan, ayniqsa buvisining ertaklariga qiziqishi baland edi. Shu sababli uni yetuk shoir bo'lib yetishishida buvisining xizmatlari katta bo'lgan deb aytish mumkin. Ta'kidlash kerakki, Nodiraning maktab ta'limini olishida ham buvisining o'rni beqiyos bo'lgan. Bo'lajak shoir dastlabki maktab ta'limini "Otinbuvi" maktabida Xafiza otin qo'lida olgan. Xafiza otin pokiza, dono, bilimdon va shu bilan birgalikda she'rxon ayol edi. Mohlaroyim har kuni maktabga enagasi Sadbarg xonim bilan borgan va u yerda ko'plab dugonalar orttirgan. Uning eng yaqin dugonsi Zebo ismli qiz bo'lib, u tojik tilini juda yaxshi bilardi va Nodira ham Zebo orqali tojik tilini puxta o'rgandi. U nafaqat o'zbek tilidagi balki, tojik tilidagi ruboiylar, g'azallarni maroq bilan o'qir edi va shu zaylda uning she'riyatga bo'lgan muhabbati yanada oshdi.

Oradan vaqtlar o'tgach Nodirabegimning maktab ta'limi nihoyisiga yetdi va u uchun katta hayotga qadam boshlandi. 1807-yilda Mohlaroyim 15-16 yoshligida Qo'qon xoni Olimxonning ukasi, Marg'ilon hokimi Umarbekka turmushga chiqdi. Taqdirning tuhfasi bilan shoiraning umr yo'ldoshi ham o'zi kabi she'riyatga muhabbatli va

ishtiyoqmand edi. Nodira Umarbekka turmushga chiqqandan so'ng Marg'ilonga keladi va bu yerda ham u g'azalxonlik qobiliyatini yanada yuksaltirdi hamda umr yo'ldoshining yordami bilan yana bir iste'dodli shoira Jahon otin

– Uvaysiy bilan tanishdi. Uvaysiy ham Nodiradek she'riyat muxlisi, mohir g'Vazolxon edi. Keyinchalik ular birgalikda ko'plab iste'dodli ayol-qizlar uchun muallimlik qildilar. 1810-yilda Umarxon Qo'qon xonligi taxtiga chiqdi va uning rafiqasi Nodirabegim ham ikki farzandi bilan xonlik markazi Qo'qon shahriga ko'Vchib o'tdilar. Nodiraning Umarxon bilan birga o'tqazgan hayoti shubhasiz saroy dabdabalaridan yiroq emas edi. Lekin yuksak aql-donish egasi bo'lgan shoira xonlik muhitining ziddiyatlarini o'z ko'zi bilan ko'rdi. Ammo u o'zining xonlikda tutgan yuqori mavqeidan foydalanib mamlakatda obodonchilik ishlariga, ma'rifat tarqatishga ko'proq e'tibor berdi. Shuningdek o'zbek va tojik tillarida g'azallar bitgan she'riyat sohiblariga, iqtidorli xattotlar va naqqoshlarga tilla qalam hamda kumush qalamdonlarni hadya etib ularni qo'lladi

Nodiraning o'zi ham o'zbek va tojik tillarida ijod qilgan. Aynan Nodira taxallusida 180 ta she'r, Komila taxallusida 19 ta g'azal, Maknuna taxallusida esa 333 ta g'azallarni yaratdi. Uni umr yo'ldoshi Umarxon ham “Amiriy” taxallusida ko'pgina adabiy ijod namunalarini yaratdi. Mohlaroyim nafaqat madaniy-ma'rifiy ishlar bilan balki, farzand tarbiyasi bilan ham jiddiy shug'ullangan. Farzandlari bo'lmish Muhammad Alixon va Sulton Mahmudxonlarni ham shoira Uvaysiy yordami bilan ilm-fanga, adabiyot hamda she'riyatga muhabbatli qilib tarbiyaladi. Mohlaroyim hayot yo'lida nafaqat baxtli onlar balki hayotning og'ir chigalliklariga va

judoliklariga ham duch keldi. Amir Umarxon 1822-yil hijriy 1237-yilda vafot etdi va Daxmai shohon maqbarasiga dafn etildi.

Bu paytda shoira 30 yoshda bo'lib, bu uning hayotidagi og'ir judoliklarning boshlanishi edi. Umarxon vafotidan so'ng taxtga katta o'g'li 12 yoshli Madalixon o'tirdi. Madalixon yosh bo'lishiga qaramasdan turli davlat amaldorlari va onasi ko'magi bilan davlat ishlarini olib bordi. Lekin saroyda yosh xonga qarshi hamda aka-uka o'rtasini buzishga qarshi qaratilgan fisqu-fasodlar ko'paydi. Ayrim hokim va beklar Madalixonni o'z ta'sirlariga olib, uning ortidan jirkanch, noo'rin ayblov hamda beayo'v qatlarni olib bordilar. Bechora ona hali yosh o'g'lini ulg'aygan sari o'z aqlini topib, adl bilan ish tutar deb umid qildi. Afsuski ona o'ylagancha bo'lib chiqmadi. Xonlikda aql va tafakkur kuchi emas, jaholat tig'i hukmron edi. Muhammad Alixon riyokor amaldorlarning maslahati bilan otasi davridagi yurtga sadoqatli sarkardalarni va qo'shbegilarni ko'pini qatl ettirdi. So'nggi yillarda xon va uning amaldorlari tomonidan o'ylab chiqarilgan “o'lpon” solig'ini zo'rlik bilan xalqdan yig'ib olinishi xonlikda noroziliklarni yanada kuchaytirdi va ko'plab qo'zg'olonlar bo'lib o'tdi.

Qo'qon xonligining ichkarisidagi notinchliklardan foydalangan Buxoro amiri Nasrulloxon 1842-yil mart oyida xonlik ustiga yurish qildi. Mohlaroyimning tinchlik istab yuborgan elchilarini qatl ettirdi va Qo'qon shahriga bostirib kirib Mohlaroyim va uning ikki o'g'illarini hamda Muhammad Amin ismli nabirasini qatl etdi. Shoiraning qatl ettirilganligi xabari butun shaharni qo'zg'atib yubordi. Kosib va hunarmandlar, ilmu-urfon va nazmiyat sohiblari g'ulu bilan shahar maydoniga chiqdilar. Mohlaroyimning jasi topilib, Daxmai shohonga dafn etildi.

Nodirabegimning ijodi keyingi davrlarda ham hamisha turli ijodkorlarni ilhomlantirib keldi. Chunonchi, XX asrning o'rtalarida Ikinchi jahon urushi yillarida Oybek va G'afur G'ulom Nodira obrazini yaratishga bag'ishlangan "Qahqahai husn" dramasi ustida ish boshladilar

Taniqli kino rejissyori Komil Yormatov esa Nodirabegim hayotining so'nggi damlariga bag'ishlangan "Odamlar o'rtasida yolg'iz" nomli kinofilimini yaratdi. Shoir Turob To'la omonidan "Nodirabegim" (Fig'on) dramasi yaratildi. Ayniqsa, mustaqillik yillarida ulug' shoiraning ijodini o'rganish, nomini abadiylashtirish ishlari yangi bosqichga ko'tarildi. Masalan, 1992-yilda Mohlaroyim tavalludining 200 yilligi keng nishonlanishi ushbu fikrimizga dalil bo'la oladi.

Xulosa sifatida aytish mumkinki, Mohlaroyim bu yurtda hayotning asl mohiyatini anglab, inson – eng ulug' va e'zozli mavjudot sifatida, ayniqsa ayol zotining jamiyatdagi o'rnini yuksak darajada qadrladi. Nodira asrlar davomida sukutda qolgan, ammo yuragi nola bilan to'lgan xotin-qizlarning ichki iztiroblariga samimiy hamdardlik bildirdi. U muhabbat, sadoqat va vafo kabi insoniy tuyg'ularni go'zal she'riy misralar orqali tarannum etib, ayolning ruhiy olamini badiiy shaklda yoritdi.

Ijodida ma'rifatli, komil fazilatlar egasi bo'lgan o'zbek ayolining chuqur fikr doirasini va sermazmun dunyoqarashini jahon sahnasiga olib chiqishga muvaffaq bo'ldi. Nodirabegim mustaqil O'zbekiston yoshlariga har doim ilhom baxsh etuvchi, she'riyat osmonida porlab turgan mash'ala, adabiyotda peshqadam shoira timsolida barhayot qoladi.

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MAKTABGACHA TA'LIMDA MULTIMEDIA TEXNOLOGIYALARDAN FOYDALANISHNING PSIXOLOGIK-PEDAGOGIK ASOSLARI

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Annotatsiya. Mazkur maqolada maktabgacha ta'lim tashkilotida multimedia texnologiyalarini qo'llashning psixologik va pedagogik jihatlari tahlil qilingan. Shuningdek, bolalarning intellektual, emotsional va ijtimoiy rivojlanishiga multimedia vositalarining ta'siri, ularni samarali qo'llash usullari va tarbiyachilarning kasbiy mahoratini oshirishdagi roli yoritilgan. Tadqiqot davomida zamonaviy ta'lim nazariyalari, pedagogik-psixologik yondashuvlar, xalqaro tajribalar o'rganilib, tegishli xulosalar ishlab chiqilgan.

Kalit so'zlar: maktabgacha ta'lim, multimedia texnologiyalari, psixologik asoslar, pedagogik jarayon, raqamli vositalar, ta'lim samaradorligi.

Bugungi globallashtirish va raqamli transformatsiya davrida ta'lim tizimi zamonaviy texnologiyalar asosida shakllanib bormoqda. Xususan, maktabgacha ta'lim jarayoniga multimedia texnologiyalarining joriy qilinishi bolalarning mantiqiy, kreativ va intellektual salohiyatini shakllantirishda muhim omil hisoblanadi.

Multimedia texnologiyalari – bu audio, video, animatsiya, interaktiv dasturlar va raqamli o'yinlarni o'zida mujassamlashtiruvchi vositalar majmuasi bo'lib, ular ta'lim jarayonini qiziqarli va samarali tashkil etishga xizmat qiladi. Shuning uchun ham ularning psixologik va pedagogik asoslarini o'rganish dolzarb masala sifatida qaraladi.

1. Maktabgacha yoshdagi bolalarning psixologik xususiyatlari:

Maktabgacha davr bolaning shaxs sifatida shakllanishidagi eng muhim bosqichlardan biridir. Ushbu davrda quyidagi omillar yetakchi ahamiyat kasb etadi:

Qiziqish va taqlidchanlik – bolalar o'rganish jarayonida ko'proq atrofdagilarni kuzatish va taqlid qilish orqali bilim oladi.

Tasavvur va xotira rivoji – vizual vositalar muhim o'rin egallaydi, chunki obrazli fikrlash ustun bo'ladi.

Emotsional sezuvchanlik – multimedia vositalaridagi rang, musiqa va animatsiyalar kuchli ta'sir ko'rsatishi natijasida bolalar ko'proq his-tuyg'u orqali o'rganadilar.

O'yin faoliyati ustuvorligi – o'yin orqali bilim berish o'zlashtirish samaradorligini oshiradi. Shu bois multimedia vositalaridan foydalanish mazkur yosh davrining psixologik ehtiyojlariga to'la mos keladi.

2. Multimedia texnologiyalarining pedagogik asoslari

Pedagogik nuqtai nazardan, multimedia vositalaridan foydalanish quyidagi imkoniyatlarni yaratadi:

1. Ta'lim jarayonining interaktivligini ta'minlaydi.
 - Tarbiyalanuvchilar faqat tinglovchi emas, balki faol ishtirokchiga aylanadi.
2. O'quv materialini vizuallashtiradi.
 - Murakkab tushunchalar rasmlar, animatsiyalar va videolar orqali osonroq o'zlashtiriladi.
3. Individual yondashuvni yaxshilaydi.
 - Har bir bola o'z tezligida o'rganish imkoniyatiga ega bo'ladi.
4. Ijodkorlikni rivojlantiradi.
 - Multimedia vositalar yordamida bolalar mustaqil hikoya yaratish, rasm chizish yoki ovoz yozish imkoniyatiga ega bo'ladilar.

Vigotskiy, Piaget va Bruner kabi olimlarning ta'lim nazariyalarida vizual va faol metodlarning ustunligi ta'kidlangan. Shunday ekan, multimedia vositalari maktabgacha ta'limning metodikasini yanada boyitadi.

3. Multimedia vositalaridan foydalanishning psixologik-pedagogik afzalliklari

- * E'tiborni jamlash va diqqatni rivojlantirish.
- * Xotirani mustahkamlash.
- * Ijodiy tafakkurni rag'batlantirish.
- * Nutq va muloqot ko'nikmalarini rivojlantirish.
- * Ijtimoiy moslashuvni kuchaytirish.

4. Tarbiyachining roli va pedagogik mahorati

Multimedia vositalaridan samarali foydalanish tarbiyachining kasbiy salohiyati va metodik mahoratiga bog'liq. Tarbiyachi quyidagilarga e'tibor qaratishi lozim:

Pedagogik maqsadga muvofiq tanlash. Har bir multimedia vositasi aniq ta'limiy maqsadga xizmat qilishi kerak.

Didaktik yondashuv. Multimedia faqat yordamchi vosita bo'lib, asosiy rolda tarbiyachining pedagogik mahorati o'rin egallaydi.

Psixologik muvofiqlik. Tarbiyalanuvchilarning yosh xususiyatlariga mos bo'lmagan murakkab multimedia vositalaridan foydalanish salbiy natija berishi mumkin.

An'anaviy ta'lim metodlari bilan uyg'unlashtirish.

5. Xalqaro tajriba va O'zbekiston amaliyoti

Dunyo miqyosida, xususan Finlyandiya, Janubiy Koreya, Yaponiya kabi davlatlarda maktabgacha ta'limda multimedia texnologiyalaridan keng foydalanilmoqda. Bu tajribalar bolalarda mustaqil o'rganish, muammoli vaziyatlarni hal qilish va ijodkorlikni rivojlantirishga xizmat qilmoqda.

O'zbekistonda ham maktabgacha ta'lim tashkilotlarida multimedia guruhlar, interaktiv doskalar, elektron ertaklar va raqamli o'yinlar joriy etilmoqda. Bu esa ta'lim samaradorligini sezilarli darajada oshirmoqda.

Xulosa qilib aytganda, multimedia vositalari maktabgacha yoshdagi bolalarning psixologik ehtiyojlariga mos keladi va pedagogik jarayonni samarali tashkil etishda muhim ahamiyatga ega. Multimedia vositalari orqali bolalarda:

bilimlarni qiziqarli tarzda yetkazish,

diqqat va xotirani mustahkamlash,

ijodkorlik va muloqotni rivojlantirish,

ta'lim jarayonining interaktivligini ta'minlash mumkin.

Demak, multimedia texnologiyalarining psixologik-pedagogik asoslarini keng o'rganish va amaliyotda qo'llash maktabgacha ta'lim sifatini yangi bosqichga olib chiqadi.

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YASHIL IQTISODIYOT VA START-UP LOYIHALARNI QO'LLAB QUVVATLASH-BARQAROR KELAJAK SARI YO'L

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Annotatsiya: Ushbu maqolada global miqyosda iqlim o'zgarishi, resurslarning kamayishi va atrof-muhitning ifloslanishi kabi muammolar tobora dolzarb bo'lib borayotganligi hamda bu muammolarni hal etishning muhim yo'nalishlaridan biri - yashil iqtisodiyotni rivojlantirish ekanligi haqida keltirib o'tilgan.

Kalit soz'lar: ekologik barqarorlik, yashil texnologiya, resurslar, ijtimoiy adolat, innovatsion yechim,

Yashil iqtisodiyot atrof-muhitga zarar yetkazmaydigan, resurslardan oqilona foydalanadigan va ijtimoiy adolatni ta'minlaydigan iqtisodiy modeldir. Yashil iqtisodiyotning asosiy tamoyillari:

- Ekologik barqarorlik: Tabiiy resurslarni saqlash va tiklash, atrof-muhitning ifloslanishini kamaytirish.
- Resurslardan oqilona foydalanish: Energiya samaradorligini oshirish, chiqindilarni qayta ishlash va resurslarni tejash.
- Innovatsion texnologiyalar: Yashil texnologiyalarni ishlab chiqish va joriy etish, yangi ish o'rinlarini yaratish.
- Ijtimoiy adolat: Yashil iqtisodiyotdan barcha qatlamlar manfaatdor bo'lishini ta'minlash, kambag'allikni kamaytirish.

Yashil iqtisodiyotni rivojlantirishda start-up loyihalar muhim rol o'ynaydi. Start-uplar innovatsion g'oyalarni amalga oshirish, yangi texnologiyalarni yaratish va amaliyotga joriy etish orqali yashil iqtisodiyotga katta hissa qo'shishi mumkin.

Yashil start-uplarning afzalliklari:

- Innovatsion yechimlar: Ekologik muammolarni hal etish uchun yangi va samarali yechimlarni taklif qilish.

- Tezkor moslashuvchanlik: Bozor talablariga tez moslashish va yangi imkoniyatlarni qo'lga kiritish.
- Ish o'rinlari yaratish: Yashil sektorlarda yangi ish o'rinlarini yaratish va aholining bandligini ta'minlash.
- Iqtisodiy o'sish: Yashil iqtisodiyotga investitsiyalarni jalb qilish va iqtisodiy o'sishni rag'batlantirish.

Yashil start-up loyihalarning muvaffaqiyatli amalga oshirilishi uchun ularni har tomonlama qo'llab-quvvatlash zarur. Bu borada quyidagi yo'nalishlarga e'tibor qaratish lozim:

- Moliyaviy qo'llab-quvvatlash:
 - Grantlar: Yashil start-uplar uchun grant dasturlarini tashkil etish.
 - Imtiyozli kreditlar: Yashil loyihalarni moliyalashtirish uchun arzon kreditlar ajratish.
 - Venture kapital: Yashil start-uplarga investitsiyalarni jalb qilish.
- Texnikaviy qo'llab-quvvatlash:
 - Biznes-inkubatorlar: Start-uplarga ofis, uskunalar va maslahat xizmatlarini taqdim etish.
 - Akselerator dasturlari: Start-uplarning rivojlanishini tezlashtirish uchun intensiv o'quv dasturlarini tashkil etish.
 - Mentorlik: Tajribali tadbirkorlar va mutaxassislar tomonidan start-uplarga mentorlik qilish.
- Ma'lumot va axborot bilan ta'minlash:
 - Yashil texnologiyalar bo'yicha ma'lumotlar bazasi: Start-uplar uchun yashil texnologiyalar, bozorlar va tartibga soluvchi hujjatlar haqida ma'lumot berish.
 - Networking tadbirlari: Start-uplarni investorlar, xaridorlar va hamkorlar bilan bog'lash uchun tadbirlar tashkil etish.
- Qonunchilikni takomillashtirish:
 - Yashil investitsiyalarni rag'batlantirish: Yashil loyihalarga soliq imtiyozlari va boshqa rag'batlantiruvchi choralarni joriy etish.
 - Ekologik talablarni kuchaytirish: Korxonalarni ekologik toza texnologiyalarni joriy etishga undash.

O'zbekistonda yashil iqtisodiyotni rivojlantirish va start-up loyihalarni qo'llab-quvvatlash bo'yicha bir qator chora-tadbirlar amalga oshirilmoqda. Xususan:

- "2022-2026 yillarga mo'ljallangan Yangi O'zbekistonning taraqqiyot strategiyasi"da yashil iqtisodiyotni rivojlantirish ustuvor vazifalardan biri sifatida belgilangan.
- Quyosh va shamol elektr stansiyalarini qurish, suv resurslaridan oqilona foydalanish, chiqindilarni qayta ishlash bo'yicha loyihalar amalga oshirilmoqda.

- Yosh tadbirkorlarni qo'llab-quvvatlash, start-up loyihalarni moliyalashtirish bo'yicha dasturlar tashkil etilmoqda.

Iqtisodiyot - barqaror kelajakni ta'minlashning muhim yo'lidir. Start-up loyihalarni qo'llab-quvvatlash yashil iqtisodiyotni rivojlantirish, yangi ish o'rinlarini yaratish va iqtisodiy o'sishni rag'batlantirishga yordam beradi. O'zbekistonda yashil iqtisodiyot va start-up loyihalarni qo'llab-quvvatlash bo'yicha amalga oshirilayotgan chora-tadbirlar mamlakatning barqaror rivojlanishiga hissa qo'shadi.

- Yashil start-up loyihalar uchun moliyaviy va texnikaviy qo'llab-quvvatlashni kengaytirish.
- Yashil texnologiyalar bo'yicha ma'lumotlar almashinuvini ta'minlash va networking tadbirlarini tashkil etish.
- Yashil investitsiyalarni rag'batlantirish va ekologik talablarni kuchaytirish.
- Yosh tadbirkorlarni yashil iqtisodiyot sohasida loyihalar yaratishga undash.
- Xalqaro tashkilotlar va donorlar bilan hamkorlikni mustahkamlash.

Albatta, yashil iqtisodiyot va start-up loyihalarni qo'llab-quvvatlash mavzusiga yana bir nechta muhim jihatlarni qo'shish mumkin:

1. Ta'lim va kadrlar tayyorlash:

Yashil iqtisodiyotni rivojlantirish uchun yuqori malakali kadrlar zarur. O'quv dasturlariga yashil texnologiyalar, resurslardan samarali foydalanish, atrof-muhitni muhofaza qilish kabi yo'nalishlarni kiritish lozim. Yoshlarni yashil sohalarda kasbiy ko'nikmalarga o'rgatish, ularni start-up loyihalar yaratishga undash muhim ahamiyatga ega. Oliy o'quv yurtlari va kasb-hunar kollejlari yashil iqtisodiyot yo'nalishlari bo'yicha mutaxassislar tayyorlashni yo'lga qo'yish kerak.

2. Xalqaro hamkorlik:

Yashil iqtisodiyotni rivojlantirishda xalqaro hamkorlik muhim rol o'ynaydi. Xorijiy investitsiyalarni jalb qilish, ilg'or texnologiyalarni o'rganish, tajriba almashish va xalqaro grantlarni qo'lga kiritish yashil start-up loyihalarning rivojlanishiga yordam beradi. O'zbekiston xalqaro tashkilotlar bilan hamkorlikni mustahkamlab, yashil iqtisodiyot sohasida xalqaro loyihalarda faol ishtirok etishi kerak.

3. Mahalliy xususiyatlarni hisobga olish:

Yashil iqtisodiyot loyihalarini ishlab chiqishda mahalliy xususiyatlarni hisobga olish muhim. O'zbekistonning iqlimi, tabiiy resurslari, demografik holati va iqtisodiy rivojlanish darajasini inobatga olgan holda loyihalarni amalga oshirish maqsadga muvofiqdir. Misol uchun, quyosh energiyasidan foydalanish O'zbekistonning quyoshli hududlarida juda istiqbolli yo'nalish bo'lishi mumkin.

4. Ekologik ongni oshirish:

Yashil iqtisodiyotni rivojlantirish uchun aholining ekologik ongini oshirish zarur. Odamlarni atrof-muhitni muhofaza qilishga, resurslardan oqilona foydalanishga va yashil texnologiyalarni qo'llashga undash kerak. Ommaviy axborot vositalari, ta'lim muassasalari va nodavlat tashkilotlar bu borada muhim rol o'ynashi mumkin. Ekologik ta'lim va targ'ibotni kuchaytirish, ekologik madaniyatni shakllantirish lozim.

5. Davlat-xususiy sheriklik:

Yashil iqtisodiyot loyihalarini amalga oshirishda davlat-xususiy sheriklik mexanizmlaridan keng foydalanish mumkin. Davlat infratuzilmani yaratishga yordam bersa, xususiy sektor esa innovatsion texnologiyalarni joriy etish va investitsiyalarni jalb qilishda faol ishtirok etishi mumkin. Davlat va xususiy sektor o'rtasida manfaatli hamkorlikni yo'lga qo'yish yashil iqtisodiyotning rivojlanishiga turtki beradi.

6. Raqamlashtirish:

Raqamli texnologiyalar yashil iqtisodiyotni rivojlantirishda muhim vosita bo'lishi mumkin. Masalan, aqlli energiya tizimlari, suvni tejash texnologiyalari, chiqindilarni boshqarish tizimlari va ekologik monitoring tizimlari raqamli texnologiyalarga asoslangan bo'lishi mumkin. Raqamlashtirish yashil loyihalarning samaradorligini oshirishga va resurslardan oqilona foydalanishga yordam beradi.

7. Standartlashtirish va sertifikatlashtirish:

Yashil mahsulotlar va xizmatlar uchun standartlashtirish va sertifikatlashtirish tizimini joriy etish iste'molchilarning yashil mahsulotlarga bo'lgan ishonchini oshiradi va ularni sotib olishga undaydi. Ekologik toza mahsulotlar va xizmatlar uchun ekologik belgilar (eko-etiketka) tizimini yaratish, yashil standartlarga muvofiq ishlab chiqarishni rag'batlantirish lozim.

8. Monitoring va baholash:

Yashil iqtisodiyot loyihalarining amalga oshirilishini monitoring qilish va baholash ularning samaradorligini oshirishga yordam beradi. Yashil iqtisodiyot ko'rsatkichlarini ishlab chiqish, yashil loyihalarning ekologik va iqtisodiy ta'sirini baholash, natijalarni tahlil qilish va kelgusida loyihalarni takomillashtirish uchun foydalanish lozim.

Albatta, yashil iqtisodiyot va start-up loyihalarni qo'llab-quvvatlash mavzusiga doir yana bir qancha muhim nuqtalarni ko'rib chiqish mumkin:

I. Yashil moliyalashtirish (Green Finance):

1. Ta'rif va ahamiyati: Yashil moliyalashtirish - bu atrof-muhitni muhofaza qilish va iqlim o'zgarishiga qarshi kurashishga qaratilgan investitsiyalar va moliyaviy oqimlardir. Bu yashil loyihalarni moliyalashtirish uchun zarur bo'lgan resurslarni safarbar etishning muhim mexanizmidir.

2. Asosiy vositalar:

- Yashil obligatsiyalar (Green Bonds): Yashil loyihalarni moliyalashtirish uchun chiqariladigan obligatsiyalar.
- Ekologik kreditlar (Green Loans): Ekologik toza texnologiyalarni joriy etish va resurslardan samarali foydalanishga qaratilgan kreditlar.
- Yashil fondlar (Green Funds): Yashil loyihalarga investitsiya qiladigan fondlar.
- Karbon kreditlari (Carbon Credits): Kamaytirilgan karbonat angidrid chiqindilari uchun beriladigan sertifikatlar.

3. Rag'batlantirish: Yashil moliyalashtirishni rag'batlantirish uchun soliq imtiyozlari, subsidiyalar va kafolatlar berish mumkin.

II. Chiqindilarni boshqarish va qayta ishlash:

1. Ahamiyati: Chiqindilarni boshqarish va qayta ishlash atrof-muhitning ifloslanishini kamaytirish, resurslarni tejash va yangi ish o'rinlarini yaratishga yordam beradi.

2. Start-up loyihalar:

- Chiqindilarni saralash va qayta ishlash texnologiyalari.
- Chiqindilardan energiya olish texnologiyalari (masalan, biogas).
- Qayta ishlangan materiallardan mahsulotlar ishlab chiqarish.
- Chiqindilarni monitoring qilish va boshqarish uchun raqamli platformalar.

3. Qo'llab-quvvatlash: Chiqindilarni qayta ishlash sohasidagi start-uplarni moliyaviy, texnik va ma'muriy jihatdan qo'llab-quvvatlash lozim.

III. Suv resurslaridan oqilona foydalanish:

1. Ahamiyati: Suv resurslarining tanqisligi ko'plab mamlakatlar uchun jiddiy muammo hisoblanadi. Suvdan oqilona foydalanish qishloq xo'jaligi, sanoat va kommunal xo'jalikda suvni tejashga, suvning ifloslanishini kamaytirishga va suv resurslaridan barqaror foydalanishni ta'minlashga yordam beradi.

2. Start-up loyihalar:

- Suvni tejaydigan sug'orish texnologiyalari (tomchilatib sug'orish, yomg'ir latib sug'orish).
- Suvni tozalash va qayta foydalanish texnologiyalari.
- Suv hisobini yuritish va monitoring qilish uchun raqamli tizimlar.
- Suvni tejash bo'yicha ta'lim dasturlari va mobil ilovalar.

3. Qo'llab-quvvatlash: Suv resurslaridan oqilona foydalanishga qaratilgan start-uplarni moliyalashtirish, texnik jihatdan qo'llab-quvvatlash va davlat tomonidan imtiyozlar berish lozim.

IV. Barqaror qishloq xo'jaligi:

1. Ahamiyati: Barqaror qishloq xo'jaligi atrof-muhitga zarar yetkazmaydigan, tuproq unumdorligini saqlaydigan va resurslardan oqilona foydalanadigan qishloq xo'jaligi tizimidir.

2. Start-up loyihalar:

- Organik dehqonchilik va tabiiy o'g'itlar ishlab chiqarish.
- Agroekologik tizimlar va polikultura.
- Suvni tejaydigan sug'orish texnologiyalari.
- Zararkunandalarga qarshi biologik kurash usullari.
- Qishloq xo'jaligi mahsulotlarini to'g'ridan-to'g'ri sotish uchun onlayn platformalar.

3. Qo'llab-quvvatlash: Barqaror qishloq xo'jaligi sohasidagi start-uplarni moliyalashtirish, texnik yordam ko'rsatish, organik mahsulotlar uchun sertifikatlashtirish tizimini yaratish va davlat tomonidan imtiyozlar berish zarur.

V. Energiya samaradorligi:

1. Ahamiyati: Energiya samaradorligini oshirish energiya resurslaridan kamroq foydalanishga, energiya xarajatlarini kamaytirishga va atrof-muhitga zararli ta'sirni kamaytirishga yordam beradi.

2. Start-up loyihalar:

- Energiya tejovchi qurilish materiallari va texnologiyalari.
- Aqlli uy tizimlari va energiya monitoringi.
- Energiya tejovchi yoritish tizimlari (LED).
- Energiya auditi xizmatlari.

3. Qo'llab-quvvatlash: Energiya samaradorligini oshirish sohasidagi start-uplarni moliyalashtirish, texnik yordam ko'rsatish, energiya auditini o'tkazish uchun subsidiyalar berish va energiya tejovchi texnologiyalarni joriy etishni rag'batlantirish lozim.

VI. Ekoturizm:

1. Ahamiyati: Ekoturizm tabiatga zarar yetkazmaydigan, mahalliy aholining madaniyati va an'alarini hurmat qiladigan va iqtisodiy manfaatlarini ta'minlaydigan turizm shaklidir.

2. Start-up loyihalar:

- Eko-mehmonxonalar va turar joylar.
- Ekologik sayohatlar va ekskursiyalar.
- Tabiatni muhofaza qilish bo'yicha ta'lim dasturlari.
- Mahalliy hunarmandchilik mahsulotlarini sotish uchun onlayn platformalar.

3. Qo'llab-quvvatlash: Ekoturizm sohasidagi start-uplarni moliyalashtirish, infratuzilmani yaxshilash, ekologik sertifikatlashtirish tizimini yaratish va turizm yo'nalishlarini targ'ib qilish lozim.

Xulosa. Yashil iqtisodiyot - barqaror kelajakni ta'minlashning muhim yo'lidir. Start-up loyihalarni qo'llab-quvvatlash yashil iqtisodiyotni rivojlantirish, yangi ish o'rinlarini yaratish va iqtisodiy o'sishni rag'batlantirishga yordam beradi. O'zbekistonda yashil

iqtisodiyot va start-up loyihalarni qo'llab-quvvatlash bo'yicha amalga oshirilayotgan chora-tadbirlar mamlakatning barqaror rivojlanishiga hissa qo'shadi.

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O‘ZBEKISTON MILLIY KUTUBXONALARI VA ULARNING XALQARO HAMKORLIKDAGI O‘RNI

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Annotatsiya. Mazkur maqolada O‘zbekiston milliy kutubxonalari, xususan, Alisher Navoiy nomidagi O‘zbekiston Milliy kutubxonasining shakllanishi, rivojlanish bosqichlari hamda xalqaro hamkorlikdagi o‘rni tahlil etilgan. Unda milliy kutubxonalar faoliyatida xalqaro tashkilotlar bilan aloqalar, xorijiy davlatlarning yirik kutubxonalari bilan tuzilgan hamkorlik memorandumlari, elektron katalog va raqamli kutubxona tizimlarini joriy etishdagi tajribalar yoritilgan. Shuningdek, xalqaro hamkorlikning O‘zbekiston kutubxonachilik sohasini rivojlantirish, milliy merosni dunyo miqyosida targ‘ib qilish va yoshlar ilmiy salohiyatini oshirishdagi ahamiyati ko‘rsatib berilgan.

Kalit so‘zlar: O‘zbekiston Milliy kutubxonasi, xalqaro hamkorlik, kutubxonachilik, raqamli kutubxona, axborot almashuvi, milliy meros.

Аннотация. В данной статье анализируются формирование и этапы развития национальных библиотек Узбекистана, в частности Национальной библиотеки Узбекистана имени Алишера Навои, а также её роль в международном сотрудничестве. Освещены вопросы взаимодействия национальных библиотек с международными организациями, подписанные меморандумы о сотрудничестве с крупнейшими зарубежными библиотеками, опыт внедрения электронных каталогов и цифровых библиотечных систем. Кроме того, показано значение международного сотрудничества для развития библиотечного дела Узбекистана, продвижения национального наследия на мировом уровне и повышения научного потенциала молодежи.

Ключевые слова: Национальная библиотека Узбекистана, международное сотрудничество, библиотековедение, цифровая библиотека, обмен информацией, национальное наследие.

Abstract. This article analyzes the formation and stages of development of Uzbekistan’s national libraries, in particular the National Library of Uzbekistan named after Alisher Navoi, as well as its role in international cooperation. It highlights the interaction of national libraries with international organizations, cooperation memoranda signed with major foreign libraries, and experiences in implementing electronic catalogues and digital library systems. Furthermore, the significance of

international cooperation in developing the library sector of Uzbekistan, promoting national heritage worldwide, and enhancing the scientific potential of youth is demonstrated.

Keywords: National Library of Uzbekistan, international cooperation, library science, digital library, information exchange, national heritage.

Bugungi kunda axborot oqimlari va bilim resurslarining jadal almashinuvi jamiyat taraqqiyotining muhim omillaridan biriga aylanmoqda. Bu jarayonda kutubxonalar, xususan, milliy kutubxonalar nafaqat ilmiy va ma'naviy-ma'rifiy bilimlarni jamlash, balki ularni xalqaro miqyosda targ'ib qilish, ilmiy hamkorlikni rivojlantirish, madaniyatlararo muloqotni mustahkamlash vazifasini bajaradi. O'zbekiston Respublikasi ham mustaqillikka erishgach, milliy kutubxonachilik tizimini yangilash, uni jahon andozalariga moslashtirish hamda xalqaro hamkorlikni kengaytirishga alohida e'tibor qaratib kelmoqda. Shu nuqtai nazardan, Alisher Navoiy nomidagi O'zbekiston Milliy kutubxonasi va mamlakatdagi boshqa yirik axborot-kutubxona muassasalari xalqaro aloqalarni rivojlantirishda muhim o'rin tutadi.

O'zbekistondagi eng yirik kutubxona sifatida faoliyat yuritayotgan Alisher Navoiy nomidagi O'zbekiston Milliy kutubxonasi 1870-yilda Toshkent ommaviy kutubxonasi sifatida tashkil etilgan. Keyinchalik u Turkiston ommaviy kutubxonasi, Turkiston xalq kutubxonasi, O'zbekiston davlat kutubxonasi, O'rta Osiyo davlat ommaviy kutubxonasi kabi turli nomlar ostida faoliyat yuritdi. 1948-yilda buyuk mutafakkir Alisher Navoiy tavalludining 500 yilligi munosabati bilan kutubxonaga shoir nomi berildi. 2002-yilda unga Milliy maqom berilib, fondiga O'zbekiston Milliy kitob palatasi ham qo'shildi. Bugungi kunda kutubxona fondida 6,5 milliondan ortiq nashr, jumladan, o'zbek va Sharq mumtoz adabiyoti namunalari, 75 dan ortiq tillardagi adabiyotlar mavjud. O'zbekiston Milliy kutubxonasi xalqaro miqyosda keng qamrovli hamkorlik aloqalarini olib bormoqda.

Kitob ayirboshlash: 1956-yildan buyon 30 mamlakat va 150 dan ortiq tashkilot bilan kitob almashish yo'lga qo'yilgan. Xorijiy obunalar: 2003-yildan xorijiy davriy nashrlarga (qog'oz va elektron ko'rinishda) obuna bo'lish uchun davlat tomonidan valyuta mablag'i ajratiladi. Kutubxona Germaniya orqali 125 dan ortiq ilmiy jurnallarga obuna bo'lgan, AQSh bilan esa dissertatsiyalar bazasidan foydalanish bo'yicha hamkorlik yo'lga qo'yilgan. Elchixonalar bilan aloqalar: Germaniya, AQSh, Shvetsariya, Rossiya, Ukraina, Xitoy, Yaponiya, Eron, Malayziya kabi davlatlarning O'zbekistondagi elchixonalari va xalqaro tashkilotlar bilan hamkorlik olib boriladi. Mutaxassislar malakasi: Kutubxona xodimlari xalqaro konferensiyalarda qatnashib, xorijiy mamlakatlarda malaka oshiradilar. Ushbu hamkorliklar kutubxona fondini

boyitish, texnik imkoniyatlarini kengaytirish, ko'rgazma va anjumanlar tashkil qilish hamda chet tillarini o'rganishda katta samara bermoqda. O'zbekiston Milliy kutubxonasi 1998-yildan boshlab kutubxonachilik jarayonlarini avtomatlashtirishni boshladi. 1999-yildan boshlab vatan va chet el nashrlariga doir yangi elektron katalog tuzishga kirishildi.

Bu islohotlar zamonaviy axborot texnologiyalaridan samarali foydalanishga, kitobxonlarga qulaylik yaratishga xizmat qildi. 2000-yilda kutubxonaning 130 yillik yubileyi keng nishonlanib, uning tarixiy va ma'naviy ahamiyati qayta e'tirof etildi. Shu davrdan boshlab kutubxona adabiyotlar targ'ibotida turli an'anaviy va noan'anaviy shakl va usullardan keng foydalanib keldi: kitob-rasmlı ko'rgazmalar, adabiy-badiiy kompozitsiyalar, tasviriy san'at asarlari ko'rgazmalari va boshqa madaniy-ma'rifiy tadbirlar tashkil qilindi.

2012-yildagi hukumat qaroriga muvofiq, kutubxonaning an'anaviy katalog faoliyati to'xtatildi va o'rniga elektron dasturlar joriy qilindi. Hozirda UzNEEL, IRBIS, KADATA kabi dasturlar kutubxona axborot resurslarini samarali boshqarishda asosiy vosita hisoblanadi. Ushbu elektron tizimlar orqali foydalanuvchilarga tezkor axborot izlash, elektron shaklda adabiyotlarga murojaat qilish imkoniyati yaratildi. Bugungi globallashtirish sharoitida kutubxonalar xalqaro hamkorliksiz rivojlana olmaydi. Ayniqsa, O'zbekiston Milliy kutubxonasi nafaqat mamlakat ichida, balki butun jahon miqyosida o'zining axborot markazi sifatidagi nufuzini mustahkamlab bermoqda. Menimcha, bunday hamkorlikning biz uchun asosiy jihatlari bor.

O'zbekiston qadimiy qo'lyozmalar, mumtoz adabiyot va boy tarixiy manbalarga ega. Xalqaro hamkorlik orqali biz ushbu boy merosni dunyo jamoatchiligiga yetkazish, ularni jahon ilmiy muomalasiga olib kirish imkoniyatiga egamiz. Milliy kutubxona xorijiy kutubxonalar bilan hamkorlikda qo'lyozmalarni raqamlashtirish va ilmiy almashuvni yo'lga qo'yishi, aslida, milliy merosimizni asrab-avaylashning eng samarali yo'llaridan biridir. Zamonaviy davrda ilm-fan chegarasiz. Shu nuqtayi nazardan qaraganda, Milliy kutubxona AQSH, Germaniya, Yaponiya kabi davlatlarning ilmiy markazlari bilan axborot almashishi o'zbek olimlari uchun yangi ufqlar ochadi. Bu orqali nafaqat dissertatsiya va ilmiy maqolalarga kirish imkoniyati yaratiladi, balki bizning tadqiqotchilarimiz ham o'z ilmiy natijalarini chet elda targ'ib qila olishadi. Bugungi kunda elektron kataloglar, raqamli kutubxonalar, bibliografik bazalarni yaratish bo'yicha xalqaro tajribani o'rganish nihoyatda muhim. Milliy kutubxonaning IRBIS, UzNEEL, KADATA kabi dasturlar bilan ishlashni yo'lga qo'yishi — xalqaro tajribani milliy sharoitga moslashtirishning yorqin namunasidir. Shu bois, xalqaro hamkorlik texnologik innovatsiyalarni tezroq o'zlashtirish imkonini beradi. Menimcha, Milliy kutubxona xalqaro hamkorlik orqali turli xalqlar

madaniyatini birlashtiruvchi maydonga aylanmoqda. Chunki bu maskanda faqat kitob almashinuvi emas, balki xalqaro anjumanlar, ko'rgazmalar, ijodiy uchrashuvlar ham tashkil qilinadi. Bunday tadbirlar xalqlar o'rtasida do'stlik rishtalarini mustahkamlaydi va O'zbekistonning jahon maydonidagi madaniy imijini yanada yuksaltiradi.

Xalqaro hamkorlik faqat chet davlatlardan nashrlar olish yoki kitob yuborish bilan cheklanib qolmaydi. Bu, avvalo, bilimlar almashuvi, tajribalar uyg'unligi va yangi imkoniyatlar demakdir. O'zbekiston Milliy kutubxonasining bugungi faoliyatini kuzatib, shuni aytish mumkinki, u nafaqat kitob saqlovchi maskan, balki jahon miqyosida intellektual hamkorlik markaziga aylanmoqda. Bu esa mamlakatimizning ilmiy-ma'rifiy nufuzini oshirishga xizmat qiladi.

Milliy kutubxonalarning yirik xorijiy kutubxonalar va xalqaro tashkilotlar bilan olib borgan hamkorligi elektron kataloglar, raqamli platformalar hamda axborot almashuv tizimlarining takomillashuviga xizmat qilmoqda. Bu jarayon milliy merosni keng miqyosda targ'ib qilish, kutubxonlik madaniyatini rivojlantirish va yoshlarning ilmiy salohiyatini oshirishda ijobiy natijalar bermoqda. Demak, O'zbekiston milliy kutubxonalarining xalqaro hamkorlikdagi faoliyati nafaqat milliy axborot infratuzilmasini mustahkamlashga, balki global miqyosda madaniy-ma'naviy merosni keng yoyishga ham xizmat qilmoqda.

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O'ZBEKISTONDA XALQARO MADANIY HAMKORLIKNING RIVOJLANISHI VA UNING JAMIYATGA TA'SIRI

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Annotatsiya. Maqolada O'zbekistonda xalqaro madaniy hamkorlikning shakllanishi va uning jamiyat hayotiga ko'rsatgan ta'siri tahlil qilinadi. Mustaqillikdan so'ng mamlakatning xalqaro maydondagi faolligi ortishi, turli xalqaro tashkilotlar va davlatlar bilan madaniy aloqalarni kengaytirishi milliy o'zlikni anglash, madaniyatlarning muloqot, ta'lim, san'at va turizm rivojlanishiga xizmat qilmoqda. Shu jarayonda o'zbek xalqining boy madaniy merosi dunyoga tanitilib, jamiyatning ijtimoiy-madaniy hayotida ijobiy o'zgarishlar yuz bermoqda.

Kalit so'zlar: xalqaro madaniy hamkorlik, madaniyat, jamiyat, o'zbek xalqi, ijtimoiy taraqqiyot, madaniy meros, muloqot.

Abstract. The article analyzes the formation of international cultural cooperation in Uzbekistan and its impact on the life of society. After independence, the country's increased activity in the international arena, the expansion of cultural ties with various international organizations and states serve the development of national identity, intercultural dialogue, education, art and tourism. In this process, the rich cultural heritage of the Uzbek people is introduced to the world, and positive changes are taking place in the socio-cultural life of society.

Keywords: international cultural cooperation, culture, society, Uzbek people, social development, cultural heritage, dialogue.

Аннотация. В статье анализируется становление международного культурного сотрудничества в Узбекистане и его влияние на жизнь общества. После обретения независимости возросшая активность страны на международной арене, расширение культурных связей с различными международными организациями и государствами служат развитию национальной идентичности, межкультурного диалога, образования, искусства и туризма. В рамках этого процесса богатое культурное наследие узбекского народа знакомится с миром, происходят позитивные изменения в социально-культурной жизни общества.

Ключевые слова: международное культурное сотрудничество, культура, общество, узбекский народ, социальное развитие, культурное наследие, диалог.

Kirish. Bugungi globallashuv jarayonida mamlakatlarning rivojlanishi nafaqat iqtisodiy va siyosiy sohalar, balki madaniy hamkorlik aloqalari orqali ham belgilanmoqda. O'zbekiston mustaqillikka erishgach, xalqaro hamjamiyat bilan keng qamrovli hamkorlikni yo'lga qo'ydi va bunda madaniyat aloqalari muhim o'rin egalladi. Madaniy almashinuv, xalqaro ko'rgazmalar, san'at festivallari, ta'lim dasturlari hamda ilmiy konferensiyalar O'zbekistonning jahon hamjamiyati bilan yanada yaqinlashuviga xizmat qilmoqda. Xalqaro madaniy hamkorlik jarayonida milliy qadriyatlarimizni targ'ib etish, turizmni rivojlantirish va yosh avlodni dunyoviy hamda umuminsoniy qadriyatlarga sodiq qilib tarbiyalash imkoniyatlari kengaymoqda. Shu bois ushbu mavzuni o'rganish jamiyatning ijtimoiy-madaniy taraqqiyoti nuqtai nazaridan muhim ahamiyat kasb etadi.

Hozirgi davrda xalqaro madaniy hamkorlik davlatlarning ijtimoiy-siyosiy va iqtisodiy rivojlanishida muhim omillardan biri hisoblanadi. O'zbekistonning mustaqillikka erishishi bilan yangi davrga qadam qo'yildi va xalqaro hamkorlikning barcha yo'nalishlarida, jumladan, madaniyat sohasida ham keng imkoniyatlar yuzaga keldi. Madaniy hamkorlik O'zbekiston jamiyatida nafaqat milliy qadriyatlarni saqlash va rivojlantirishga, balki ularni dunyo miqyosida targ'ib etishga xizmat qilmoqda. Shu bilan birga, xalqaro madaniy hamkorlik yoshlar tarbiyasi, ta'lim, turizm va san'at rivojlanishiga ijobiy ta'sir ko'rsatmoqda.

Adabiyotlar tahlili. O'zbekistonda xalqaro madaniy hamkorlik masalasi mustaqillik yillarida ko'plab mahalliy va xorijiy tadqiqotchilar diqqat markazida bo'lib kelmoqda. Mahalliy olimlar tomonidan olib borilgan tadqiqotlarda madaniyatning ijtimoiy taraqqiyotdagi o'rni, xalqaro aloqalar orqali milliy qadriyatlarning dunyo miqyosida tanitilishi va shu jarayonning jamiyat rivojiga ta'siri keng yoritilgan. Ayrim manbalarda, xususan, O'zbekistonning turli xalqaro tashkilotlar bilan hamkorlikdagi loyihalari, madaniy festival va anjumanlar orqali milliy merosni ommalashtirish masalalari batafsil o'rganilgan. Xorijiy adabiyotlarda esa O'zbekistonning mintaqaviy va global madaniy jarayonlardagi ishtiroki, Sharq va G'arb madaniyatlari o'rtasidagi ko'priq sifatidagi roli alohida ta'kidlangan. Shuningdek, ko'plab tadqiqotlar madaniy diplomatiyaning ahamiyatini tahlil etgan bo'lib, bunda madaniy hamkorlik faqat ijtimoiy-madaniy hayotni boyitish bilangina cheklanmasdan, balki davlatning xalqaro imijini shakllantirishda ham muhim omil ekanligi ta'kidlanadi. Bu jarayonning asosiy natijalari sifatida jamiyatda bag'rikenglik, millatlararo totuvlik va yoshlar ongida umuminsoniy qadriyatlarga sodiqlikni shakllantirish ko'rsatib o'tiladi.

Metodologiya. Mazkur tadqiqot ilmiy adabiyotlarni tahlil qilish, tarixiy va qiyosiy yondashuvlardan foydalanish asosida olib borildi. O'zbekistonning mustaqillik

yillarida amalga oshirilgan xalqaro madaniy tashabbuslari, turli xalqaro tashkilotlar bilan hamkorlikdagi loyihalar hamda madaniy diplomatiya amaliyotlari asosiy manbalar sifatida ko'rib chiqildi. Bundan tashqari, mintaqaviy madaniy aloqalar hamda global jarayonlar doirasida O'zbekistonning tutgan o'rni qiyosiy jihatdan tahlil qilindi.

Natijalar. Tadqiqot natijalari O'zbekistonda xalqaro madaniy hamkorlikning jamiyat hayotiga ko'rsatgan quyidagi asosiy ta'sirlarini namoyon qiladi:

Milliy qadriyatlarning dunyo hamjamiyatida targ'ib qilinishi va boy madaniy merosning xalqaro maydonda tan olinishi.

Madaniyatlararo muloqotning rivojlanishi natijasida jamiyatda bag'rikenglik, millatlararo totuvlik va ochiqlikning kuchayishi.

Xalqaro festival, ko'rgazma va san'at tadbirlari orqali yosh avlodning dunyoqarashini kengaytirish va ijodiy salohiyatini rivojlantirish.

Turizm sohasining jadal rivojlanishi hamda mamlakatning jahon hamjamiyati bilan iqtisodiy va ijtimoiy integratsiyasiga hissa qo'shish.

O'zbekistonning xalqaro maydondagi obro'sini oshirish va madaniy diplomatiya orqali davlat manfaatlarini ilgari surish.

Muhokama. O'zbekistonda xalqaro madaniy hamkorlikning rivojlanishi jamiyat taraqqiyoti uchun muhim omil bo'lib, u ko'p qirrali jarayon sifatida namoyon bo'ladi. Bir tomondan, milliy meros va qadriyatlarning saqlanishi va targ'ib etilishi, ikkinchi tomondan esa, jahon madaniyati yutuqlarining mamlakatga kirib kelishi orqali madaniy almashinuv chuqurlashmoqda. Bu jarayon ijtimoiy hayotning ko'plab sohalariga bevosita ta'sir ko'rsatmoqda. Masalan, xalqaro ta'lim loyihalari orqali yoshlar xorijiy tajribani o'zlashtirmoqda, san'atkorlar xalqaro miqyosda o'z ijodini namoyon qilmoqda, turizm sohasi esa iqtisodiy samaradorlikni oshirmoqda. Muhokama jarayonida yana bir muhim jihat shundaki, xalqaro madaniy hamkorlik nafaqat tashqi aloqalarni mustahkamlash, balki ichki jamiyatda ham ijtimoiy barqarorlikni ta'minlashga xizmat qilmoqda. Bag'rikenglik, tolerantlik va millatlararo totuvlikni mustahkamlash orqali jamiyatning ijtimoiy birligi kuchaymoqda. Bu esa milliy manfaatlarni himoya qilish va barqaror taraqqiyotga erishish uchun zarur shartlardan biridir.

Xulosa. O'zbekistonda xalqaro madaniy hamkorlikning rivojlanishi jamiyat hayotida chuqur ijobiy o'zgarishlarga sabab bo'lmoqda. Bu jarayon milliy qadriyatlarni dunyoga targ'ib qilish, yoshlarni global madaniyatlar bilan tanishtirish, turizmni rivojlantirish va davlatning xalqaro obro'sini mustahkamlashda muhim rol o'ynaydi. Madaniy diplomatiya orqali mamlakatning xalqaro maydondagi mavqei oshib, ichki jamiyatda esa bag'rikenglik va ijtimoiy barqarorlik mustahkamlanmoqda. Shunday

qilib, xalqaro madaniy hamkorlik O'zbekistonning ijtimoiy-madaniy taraqqiyotida va global jarayondagi faol ishtirokida strategik ahamiyat kasb etmoqda.

Xulosa. O'zbekistonda xalqaro madaniy hamkorlikning rivojlanishi milliy qadriyatlar va boy madaniy merosni dunyoga targ'ib etish, ijtimoiy hayot sifatini oshirish hamda jamiyatda ochiqlik va tolerantlikni mustahkamlashga xizmat qilmoqda. Ushbu jarayon madaniyatlararo muloqotni chuqurlashtirib, mamlakatning jahon maydonidagi obro'sini oshiradi. Shu bilan birga, yosh avlodning zamonaviy bilim va madaniy qadriyatlarga ega bo'lishiga zamin yaratadi. Demak, xalqaro madaniy hamkorlikning izchil rivojlanishi O'zbekiston jamiyatida ijtimoiy barqarorlikni ta'minlash va milliy manfaatlarni ilgari surishda muhim omil bo'lib qolmoqda.

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ДЕФИЦИТ МАГНИЯ КАК ДИАГНОСТИЧЕСКИЙ ПОКАЗАТЕЛЬ ПРИ ДИСПЛАЗИИ СОЕДИНИТЕЛЬНОЙ ТКАНИ

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Актуальность. Соединительнотканная дисплазия является труднодиагностируемым состоянием организма. Магнию принадлежит существенная роль в формировании нормальной структуры соединительной ткани, и нарушение гомеостаза магния является одним из этиологических факторов формирования дисплазии соединительной ткани. Поэтому концентрация микроэлемент магния в крови может служить в качестве диагностическим показателем при наличии дисплазии соединительной ткани у детей.

Цель исследования. Целью этого исследования является ранняя диагностика дисплазии соединительной ткани у детей с разными патологиями и составлять правильный план лечения.

Материал и методы. Mg^{2+} является 12-м элементом периодической таблицы Д.И. Менделеева, нормальный уровень которого признан основополагающей константой, контролирующей здоровье человека. Содержание Mg в организме здорового человека, по данным разных авторов, колеблется от 21 до 30 мг (в среднем 25 мг), в сыворотке крови его концентрация поддерживается в достаточно узком диапазоне (0,7–1,1 ммоль/л). В последние десятилетия отмечается увеличение частоты выявления врожденных пороков развития и наследственных заболеваний у детей, а также различных вариантов дисплазии соединительной ткани (ДСТ), что, по данным некоторых авторов, обусловлено дефицитом Mg. Таким образом, имеющиеся данные позволяют сделать вывод, что наиболее вероятные механизмы воздействия дефицита магния на соединительную ткань — это: 1) усиление деградации коллагеновых волокон, 2) синтез дефектного коллагена из-за нарушения структуры и сборки коллагеновых волокон, 3) нарушение соотношения коллагеновых и эластических волокон в сторону увеличения последних, 4) замедление синтеза всех структурных молекул соединительной ткани.

Исследование проводилась в клинике ТашПМИ в кардиоревматологической отделении среди 167 детей с разными

фенотипическими признаками дисплазии соединительной ткани и заболеваниями (ювенильный ревматоидный артрит, реактивный артрит, синдром марфана) в возрасте от 5 до 14 лет. У этих детей были такие аномалии как: асимметрия черепа, узкие глазные щели, миопия, асимметрия ушей, аномалии прикуса, множественный кариес, деформация грудной клетки, нарушение осанки, Х-или О-образное искривление ног и другие. Для исследования брали кровь для биохимического анализа чтобы определить концентрацию ионов магния в сыворотке крови. Норма уровня концентрации магния в сыворотке крови составляет 0,7 – 1,1 ммоль/л.

Результаты исследования. У 102 больных (61%) концентрация магния в крови составляло 0,62 ммоль/л, у 27% больных (45 больных) составлял 0,57 ммоль/л, у 10% (17 больных) определяли 0,26 ммоль/л. У остальных 2% больных (3) 0,7 ммоль/л был в пределах нормы.

Выводы. Результаты исследования показывает, что концентрация магния в крови у больных с разными аномалиями дисплазии соединительной ткани значительно меньше нормы. Поэтому мы можем считать определение концентрации ионов магния в сыворотке крови является одним из лабораторным методом диагностики соединительнотканной дисплазии.

ASSESSMENT OF QUALITY OF LIFE IN ELDERLY PATIENTS WITH ISCHEMIC HEART DISEASE

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Objective: To analyze the characteristics of clinical manifestations occurring against the background of combined cardiovascular and renal dysfunctions in elderly patients.

Materials and Methods:

The study involved 125 elderly patients with ischemic heart disease (IHD) and life-threatening arrhythmias. Based on the presence or absence of arrhythmias in their medical history, the patients were divided into two groups:

Group 1 (n=65): Patients with IHD and associated life-threatening arrhythmias.

Group 2 (n=60): Patients with IHD but without life-threatening arrhythmias.

The research was conducted at the Bukhara regional branch of the Republican Specialized Scientific-Practical Medical Center of Cardiology. Patients' quality of life was assessed in terms of daily life activity, physical capacity, psychological state, and social activity. The Minnesota Living with Heart Failure Questionnaire (MLHFQ) was used for evaluation. This internationally recognized tool assesses factors affecting quality of life in patients with heart failure.

Analysis of the Obtained Results: One of the most common complaints was irregular heartbeat, which was reported in **73.8%** of patients in Group 1, compared to only **20%** in Group 2 (**p<0.001**). This symptom is one of the clinical manifestations of arrhythmia and is observed less frequently in patients without arrhythmia. Irregular heartbeat arises as a result of increased arrhythmogenic cellular activity, disturbances in repolarization processes, and myocardial ischemia. Symptoms of weakness and rapid fatigue were widespread in both groups, detected in **84.6%** of patients in Group 1 and **81.7%** in Group 2. These symptoms are explained by reduced cardiac output, insufficient perfusion, and impaired oxygen supply to organs and tissues. It is important to note that in elderly patients, due to trophic changes and multiple somatic pathologies, these symptoms become even more pronounced.

Neurological symptoms such as dizziness and loss of consciousness were observed in 30.8% of cases in Group 1, while only 3.3% of cases in Group 2 experienced these

symptoms ($p < 0.001$). These symptoms are associated with the significant hemodynamic impact of arrhythmia, especially due to tachy- or bradyarrhythmias causing disruption of continuous cerebral blood flow.

Chest pain (anginal pain) was recorded in 53.8% of Group 1 and 63.3% of Group 2, with no statistically significant difference. This condition is related to myocardial ischemia and is explained by the presence of ischemic heart disease (IHD) in both groups. At the same time, patients with arrhythmia may sometimes not experience pain symptoms, which indicates a higher likelihood of "silent" ischemia in these patients.

Shortness of breath – a common symptom of chronic heart failure (CHF) – was detected in 76.9% of Group 1 and 70% of Group 2. This condition is explained by impaired systolic or diastolic heart function, pulmonary venous hypertension, interstitial edema, and trophic changes in the lungs. Arrhythmias may further worsen the respiratory condition, as fluctuations in cardiac output reduce perfusion even more. Leg edema was observed in 67.7% of Group 1 and 66.7% of Group 2. This sign develops due to excessive fluid retention, activation of the renin-angiotensin-aldosterone system, and impaired kidney function. Insomnia and anxiety occurred in 50.8% of Group 1 and 46.7% of Group 2. These symptoms are explained by changes in the psychoemotional state, hypoxia, inadequate rest, and subjective symptoms specific to arrhythmia when lying down.

Conclusion:

According to the analysis, Group 1 ($n=65$) patients had a significantly lower quality of life. Their average total score on the MLHFQ was 67.4 ± 8.2 , which reflects high levels of functional limitation, fatigue, shortness of breath, sleep disorders, and psychological depression.

In contrast, Group 2 ($n=60$) had relatively better quality of life indicators, with an average score of 53.6 ± 7.9 ($p < 0.01$), which represents a statistically significant difference. These patients reported fewer symptoms of shortness of breath, fatigue, and psychological disturbances.

Life-threatening arrhythmias have a significantly negative impact on quality of life. In such patients, therapeutic strategies should focus not only on hemodynamic stabilization but also on a comprehensive rehabilitation approach that includes psychological and social support.

MORPHOLOGICAL CHARACTERISTICS OF COMPLICATED COURSE OF LIPOFILLING

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Abstract. Morphological and immunohistochemical studies of complicated lipofilling outcomes revealed five main types of tissue reactions: lipogranuloma, cyst with fibrous capsule, fibroma, lipoma, and non-encapsulated fat necrosis. Each form had a different anatomical location, time of manifestation, and nature of the inflammatory-reparative response.

Keywords: lipofilling, morphology, complication

Relevance. Lipofilling is currently considered not only as a method of volumetric correction but also as a biologically active form of autologous transplantation capable of initiating tissue regeneration processes. This circumstance determines the growing interest of both practical medicine and fundamental science in studying the mechanisms of fat graft survival (1, 2, 3, 4, 5).

Lipofilling is a modern, minimally invasive method of contour plastic surgery that involves the transplantation of the patient's own fat tissue from donor areas to problem areas of the body. This procedure helps to correct body imperfections, smooth out hollows, and add volume to the breasts, buttocks, face, and hands. Lipofilling offers several advantages over other methods, including a low risk of rejection, long-lasting results, minimal trauma, and a short recovery period. However, certain complications are possible after such surgeries, and everyone who plans to undergo fat grafting should be aware of them (1, 2, 6, 7, 8). Factors that can lead to undesirable consequences after fat grafting can be divided into three broad groups: those related to the patient's individual characteristics, those caused by errors during the surgery itself, and those caused by improper care during the recovery period (1, 2, 9, 10, 11). The first group of causes includes individual factors such as a tendency to form keloid scars, blood clotting disorders, diabetes, chronic infections, and inflammatory diseases. These

factors complicate the tissue healing process, increase the risk of infection, and impede graft engraftment (1, 12, 13, 14, 15).

The second group of causes includes surgical errors, such as injury to nerve trunks and major vessels, excessive graft insertion, and uneven distribution of fat cells within the tissue. The risk of such complications directly depends on the qualifications and experience of the surgeon, so it is crucial to carefully select a clinic and specialist. Preference should be given to reputable medical institutions and plastic surgeons with extensive experience, using advanced equipment, and innovative lipofilling techniques. The third group of factors involves the patient's failure to follow recovery recommendations. This includes failure to wear compression garments as prescribed, early physical activity, visiting a steam room, sauna, solarium, or swimming pool, and neglecting postoperative incision hygiene. All of these errors slow the healing process, provoke inflammation and graft displacement, and lead to deformities of the body contours. Therefore, it is extremely important to strictly follow all of the surgeon's recommendations for caring for the donor and recipient sites for several weeks after lipofilling.

Donor Site Complications

The areas of the body from which fat tissue is harvested for subsequent transplantation are called donor sites. The most common donor sites are the inner thighs, knees, and lower abdomen—areas with sufficient fat reserves. During the surgery, I make small punctures in these areas through which I insert a thin cannula to aspirate the fat cells. Despite the minimally invasive nature of the procedure, certain problems may develop at the donor sites.

Early complications in the fat harvesting area include hematomas—bleeding caused by damaged blood vessels. They present as aching pain, a swollen sensation, and irregularly shaped bruises on the skin. Hematomas cause significant discomfort but pose no health risk and resolve spontaneously within 2-3 weeks.

The next most common complication is postoperative wound infection. This occurs due to failure to observe aseptic and antiseptic precautions during surgery, as well as improper suture care by the patient. Inflammation manifests as skin redness, swelling, localized fever, and purulent discharge from the wound. In such cases, it is necessary to immediately consult a doctor for antibiotic therapy and antiseptic dressings. Otherwise, the infection can spread to surrounding tissues and even cause sepsis—a generalized inflammatory response.

Unevenness and lumps of the skin at the liposuction sites often bother patients in the late post-lipofilling period. This occurs due to uneven aspiration of fat tissue and

incomplete skin contraction after removal of excess fat deposits. In most cases, these defects can be corrected with repeat lipofilling or liposuction.

Another problem experienced by approximately half of patients is numbness or increased sensitivity of the skin in the donor areas. This sensation is associated with the transection of nerve fibers during liposuction and usually disappears completely within 3-6 months.

A relatively rare but extremely unpleasant complication is the accumulation of lymphatic fluid, resulting in the formation of seromas. These seromas are small, dense-walled cavities filled with clear or yellowish fluid. Seromas often form due to excessive tissue trauma and impaired lymph flow.

Objective of the study. To analyze the morphological and immunohistochemical patterns in complicated lipofilling procedures.

Material and Methods. To assess the morphological structure of complicated lipofilling procedures, excised or biopsied adipose tissue fragments were analyzed from 34 patients with confirmed clinical aesthetic complications of lipofilling. The obtained samples were subjected to histological and immunohistochemical examination.

Results and discussion. The most common morphological complication across all anatomical locations was lipogranuloma, diagnosed in 11 patients (32.4%). The second most common complication was cysts with a fibrous capsule, detected in 10 patients (29.4%). The third most common complication was fibromas, consisting of dense fibrous connective tissue without signs of inflammation. They were detected in 6 patients (17.6%) and distributed relatively evenly across all surgical sites.

Finally, fat necrosis without capsule formation was observed in 4 patients (11.8%).

The morphological structure of aesthetic complications following lipofilling varies depending on the anatomical site, timing of manifestation, and predominant pathogenetic mechanisms (inflammation, fibrosis, fatty proliferation). The most aggressive morphological course (cysts, lipogranulomas, necrosis) is observed with lipofilling of the mammary glands, which is consistent with previously identified immunological predictors and the clinical picture.

Lipogranuloma was the most common form of complicated lipofilling outcome, diagnosed in 11 of 34 patients (32.4%). These lesions were predominantly detected during lipofilling of the mammary glands (n=6) and gluteal region (n=3), with isolated cases reported on the face (n=1) and other locations (n=1).

Clinically, lipogranulomas manifested as dense, sometimes painful areas, detectable 2 to 4 months after the procedure. Microscopically, lipogranuloma is characterized by a central zone of fat necrosis surrounded by a rim of macrophages, epithelioid, and

multinucleated foreign body giant cells, followed by the formation of a fibrous connective tissue capsule of varying thickness. Lipid deposits, cholesterol crystals, and signs of small vessel vasculitis are often observed in the intercellular space. Immunohistochemically, intense expression of CD68 (a macrophage marker) was detected in the lipogranuloma zones at the periphery of necrosis, particularly pronounced along the border with viable adipose tissue. Positive cells formed dense clusters (score 3, diffuse). IL-6 expression was detected in the cytoplasm of macrophages and isolated fibroblasts (score 2), predominantly in the area of active inflammation. TGF- β 1 was detected in fibroblasts and pericapillary structures of the capsule, indicating a fibrogenic inflammatory potential (score 2-3, focal).

Cysts with dense fibrous capsule formation were detected in 10 patients (29.4%) with complicated lipofilling outcomes. They were most frequently observed during breast lipofilling (n=7), less frequently in the gluteal region (n=2) and perineum (n=1). Unlike lipogranulomas, cystic lesions were characterized by a lesser inflammatory component and a predominance of tissue degeneration.

Clinically, cysts manifested later, typically 3.5-5 months after the procedure. Microscopically, cysts were represented by a cavity surrounded by a dense fibrous capsule, 100 to 300 μ m thick, without a distinct epithelial lining. Within the cavity, remnants of destroyed adipocytes, fragments of connective tissue, and cholesterol crystals were observed. Isolated macrophages and lymphocytes were present at the periphery, but no pronounced inflammatory infiltrate was observed. In some cases of long-standing cysts, areas of hyalinosis of the wall and calcification deposits were observed.

Immunohistochemically, single CD68⁺ macrophages were detected in the cyst wall, predominantly in areas adjacent to the cavity (score 1, focal). IL-6 expression was minimal or absent (score 0-1), emphasizing the absence of an active inflammatory response at the time of removal. Meanwhile, TGF- β 1 expression in capsular fibroblasts remained moderate (score 2, focal), possibly indicating ongoing fibrotic tissue remodeling.

Clinically, cysts with fibrous capsules are particularly significant in breast lipofilling, as they can simulate benign and even cancerous lesions.

Fibroma, as a morphological form of complicated lipofilling, was detected in 6 patients (17.6%). It was observed in the buttocks (n=2), mammary glands (n=2), face (n=1), and other areas (n=1). This type of complication typically developed late (4 to 6 months after surgery), unlike inflammatory or cystic complications, which manifest early.

Microscopically, fibroma is represented by mature fibrous connective tissue, with a predominance of parallel-oriented collagen fiber bundles, a moderate number of

fibroblasts, and sparse vascular structures. IHC analysis revealed the presence of fibroma, which demonstrated low to moderate expression of CD68+, predominantly as solitary macrophages in the interstitium (score 1). IL-6 expression was virtually undetectable (score 0-1), confirming the absence of active inflammation. At the same time, TGF- β 1 was consistently detected in the cytoplasm of fibroblasts and perivascular zones (score 2-3), reflecting the dominance of fibrogenic tissue remodeling.

With long-standing fibroma areas, partial hyalinous degeneration was observed, confirming a complete chronic process.

Lipoma as a morphological form of complicated lipofilling was detected in 3 patients (8.8%) and occurred in the face (n=1), breasts (n=1), and buttocks (n=1). This form had the least clinical significance in terms of inflammation, but caused significant aesthetic discomfort, especially in exposed and contoured areas.

Microscopically, lipoma is represented by a lobular mass of mature adipose tissue surrounded by a thin connective tissue capsule. Adipocytes are large, with distinct membranes, and there are no signs of necrosis or inflammation. Occasionally, isolated fibroblasts and capillaries were observed in the interlobular septa. Lipomas differed from normal subcutaneous adipose tissue by the presence of a capsule and the absence of volume regression over time.

Immunohistochemically, lipomas were characterized by negative or weakly positive CD68+ expression (score 0-1), confirming the absence of a macrophage inflammatory component.

IL-6 and TNF- α were not detected in lipoma tissue. TGF- β 1 was detected focally in isolated fibroblasts in the septa, but without diffuse activity (score 1, weak intensity).

Fat necrosis without connective tissue capsule formation was detected in 4 patients (11.8%) and occurred in one case per site: face, breasts, buttocks, and other sites. This form of aesthetic complication was characterized by the earliest stages of clinical manifestation and was associated with an acute local inflammatory process arising as a result of the massive death of fat cells.

Morphologically, this type of complication was characterized by fields of destroyed adipocytes, membrane loss, accumulation of fatty debris, cholesterol crystals, and a pronounced inflammatory infiltrate consisting of macrophages, neutrophils, and lymphocytes. A capsule was not formed, the lesion's contours were blurred, and the surrounding tissue was edematous, with signs of vasculitis.

IHC revealed maximum CD68+ expression (score 3) in the area of fat necrosis without a capsule, particularly in macrophages forming ring-shaped and focal clusters along the periphery of the necrotic lesion.

IL-6 was also detected in macrophages and individual fibroblasts (score 3); its expression was diffuse, indicating an active cytokine response.

TNF- α was detected in the vascular wall and mononuclear cells, confirming the involvement of innate immunity. TGF- β 1 was weakly expressed in these areas (score 1-2), localized primarily in the surrounding connective tissue, indicating an incomplete remodeling phase. For example, in patient K., 40, a large mass with signs of inflammation developed three weeks after 120 ml of lipofilling of the buttocks. The excised tissue turned out to be a necrotic lesion without a capsule, with intense expression of IL-6 and CD68+, and a virtually complete absence of TGF- β 1.

Thus, morphological and IHC studies of complicated lipofilling outcomes allowed us to identify five main types of tissue reactions: lipogranuloma, cyst with a fibrous capsule, fibroma, lipoma, and fat necrosis without a capsule. Each form had a different anatomical location, time of manifestation, and nature of the inflammatory and reparative response. The most pronounced inflammatory and fibrotic changes were observed in breast lipofilling, consistent with previously identified clinical and immunological risk predictors.

IHC expression of CD68+, IL-6, and TGF- β 1 varied depending on the type of complication: highest values were observed in fat necrosis and lipogranuloma, while lowest values were found in lipoma and fibroma. These data confirm the presence of a local pathological substrate for complicated outcomes, developing in the context of systemic immune imbalance.

Conclusions.

1. Unencapsulated fat necrosis is an acute inflammatory complication arising from unsuccessful graft vascularization and a pronounced innate immune response.
2. Morphological and immunohistochemical studies of complicated lipofilling outcomes identified five main types of tissue reactions: lipogranuloma, cyst with a fibrous capsule, fibroma, lipoma, and unencapsulated fat necrosis. Each form had a different anatomical location, time of manifestation, and nature of the inflammatory-reparative response. The most pronounced inflammatory and fibrotic changes were observed with lipofilling of the mammary glands, consistent with previously identified clinical and immunological risk predictors.

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XALQARO MADANIY FESTIVALLAR VA ULARNING JAHON XALQLARINI YAQINLASHTIRISHDAGI O'RNI

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*O'zDSMI "Madaniyat va san'at muassasalarini
tashkil etish hamda boshqarish" ta'lim yo'nalishi 3-kurs talabasi*

Annotatsiya: Ushbu maqolada xalqaro madaniy festivallarning ijtimoiy – siyosiy hayotdagi o'rni, mamlakatda turizm va iqtisodiyotni rivojiga qo'shgan hissi, jahon madaniy maydonida hamda millatlararo do'stona munosabatlarni mustahkamlashdagi ahamiyati haqida so'z boradi. Shuningdek, madaniy diplomatiya taraqqiyotini yuksaltirish, milliy madaniyat, yo'qolmas an'analarni dunyo sahnasiga olib chiqish masalalarini ko'zda tutadi.

Kalit so'zlar: Xalqaro, madaniyat, "yumshoq kuch", festival, tadbir, millat, do'stlik, iqtisod, hamkorlik, global, turizm, san'at, zamonaviy, milliy, maydon, tendetsiya, aholi, ijtimoiy.

Аннотация: В данной статье рассматривается роль международных культурных фестивалей в социально-политической жизни, их вклад в развитие туризма и экономики страны, значение в мировом культурном пространстве, а также в укреплении дружеских межнациональных отношений. Кроме того, подчеркивается важность развития культурной дипломатии, вывода национальной культуры и исчезающих традиций на мировую арену.

Ключевые слова: международный, культура, «мягкая сила», фестиваль, мероприятие, нация, дружба, экономика, сотрудничество, глобальный, туризм, искусство, современность, национальный, пространство, тенденция, население, социальный.

Annotation: In this article, the role of international cultural festivals in socio-political life is a talk of the importance of international cultural festivals in the socio-political life, the importance of tourism and economy in the country in strengthening interethnic relations. He also envisages the development of cultural diplomacy, to bring national culture, the lost traditions to the world stage.

Keywords: international, culture, "soft strength", festival, event, nationalism, economics, cooperation, global, tourism, tenders, modern, national, fields, tenders, population, social.

Hozirgi globallashuv davrida xalqlar o'rtasidagi madaniy hamkorlik, o'zaro qadriyatlar almashinuvi va insoniyatni yaqinlashtirish jarayonida xalqaro madaniy festivallar

muhim vositalardan biri sifatida maydonga chiqmoqda. Festivallar san'at va ijobiy jarayonlarni namoyish etish maydoni, balki milliy o'zlikni anglash, madaniyatlararo muloqotni rivojlantirish hamda xalqlar o'rtasida o'zaro ishonchni mustahkamlashga xizmat qiluvchi universal platformadir. Shu bois, xalqaro madaniy festivallarni ilmiy nuqtayi nazardan o'rganish hozirgi zamon madaniyatshunosligi va sotsiologiyasining dolzarb vazifalaridan biri hisoblanadi.

Festival o'zi nima? Shu o'rinda festival so'zining fenomeni va uning mazmuniga qisqacha to'xtalib o'tadigan bo'lsak, "Festival" so'zi lotin tilidagi *festum* (bayram) so'zidan kelib chiqqan bo'lib, qadimdan jamiyat hayotining madaniy, diniy va ijtimoiy ehtiyojlarini ifodolovchi ommaviy tadbir sifatida shakllangan. Zamonaviy talqinda festival – san'at, musiqa, teatr, kino, xalq og'zaki ijodi yoki boshqa madaniy ko'rinishlarni jamoaviy ravshda nishonlash va targ'ib qilishga qaratilgan xalqaro miqyosidagi madaniy hodisadir. Har bir xalqning madaniyati bilan tanishishda eng jonli va bevosita tanishuv imkonini taqdim etivchi bu aynan festivallardir. Har bir o'tkazilayotgan festivalning mohiyati va qamroviga qarab belgilangan joy xorijiy mehmonlar uchun yangi tashrif joyi hamda turistik zonalarni targ'ib qilib, mamlakatda turizm sohasini rivojlantirishda ham muhim ahamiyat kasb etadi. Misol tariqasida keltirishimiz mumkin bo'lgan, joriy yilda O'zbekistonning diqqatga sazovor joylarida o'tkazilgan bir nechta festivallar haqida, jumladan, Qoraqalpog'iston Respublikasi Mo'ynoq tumanidagi qariyb Orol dengizini yutib yuborgan, "Kemalar qabristoni" deya nom olgan sahroda o'tkazilgan "Stixiya" electron musiqa festivali. Ushbu festival O'zbekistondagi eng noodatiy festivallardan biri hisoblanib, sahroda ijodkorlar o'zligini namoyon etish uchun o'tkaziladi. Elektron musiqa, san'at va fanni uyg'unlashtirgan ushbu tadbirni 2018- yili bir guruh tashabbuskorlar o'ylab topishgan. O'tgan vaqt mobaynida festival, yaqin va uzoq xorij mamlakatlaridan 15 mingdan ziyod mehmonlarni o'ziga jalb qildi, sahroda o'z musiqasini qo'yish niyatida texno, xaus, embiyent va boshqa eksprimental janrlarning ijrochilari tashrif buyurgan. Mo'ynoq ushbu festivalning aniq bir nuqtasidir. Xilma-xil musiqiy dasturlardan tashqari festival doirasida mahalliy hudud va aholi hikoyalariga bag'ishlangan "STIXIYA N+1" forumi, art-installyatsiyalar namoyishi, mahorat darslari va yoga mashg'ulotlari, hamda mahalliy usta-hunarmandlar tomonidan ishlab chiqilgan eko-brendlar yarmarkasi ham o'tkazilishi ichki va tashqi turizmni rivojiga va milliy madaniyatni targ'ibotiga katta hissa qo'shadi.

Shu o'rinda yana bir festivalga, Xalqaro "Jaz" festivaliga e'tibor qaratsak. Bahor faslida Toshkent nafaqat kashtan va nastarin iforlariga, balki jaz sadolariga ham to'ldi. Poytaxt to'qqizinchi bor Xalqaro Jaz festivaliga mezbonlik qildi. Tadbir, an'anaviy ravishda, O'zbekiston madaniyati va san'atini rivojlantirish jamg'armasi, YUNESKO

vakolatxonasi va bir qator mamlakatlarning elchixonalari tomonidan tashkil etilib, Xalqaro forumlar saroyining yozgi maydonchasida AQSH, Germaniya, Fransiya, Isroil, Indoneziya, Polsha, Shveysariyadan kelgan taniqli xonanda va sozandalar, shuningdek, o'zbekistonlik jaz ijrochilari chiqish qildi. Xalqaro madaniy aloqalarni mustahkamlashda, xorijiy sayyohlarni jalb qilish, xalqlar o'rtasida madaniy muhitni yaratishda bunday festivallarning o'rni beqiyosdir. Namangan shaxrida o'tkaziladigan Xalqaro Gullar festivali, Xivada o'tkaziladigan xalqaro "Strongmen" bahodirlar musobaqasi, Buxoroda o'tkazilib kelinayotgan "Ipak va ziravorlar" xalqaro festivali, Samarqandda 2019-yildan buyon o'tkazilib kelinayotgan xalqaro "Samarkand Marathon" xayriya yugurish musobaqasi shular jumlasidandir. Ushbu festivallar davlatlararo do'stona munosabatlarni mustahkamlashda, madaniy diplomatiyani o'rnatishda muhim rol o'ynaydi.

Ho'sh, madaniy diplomatiya o'zi nima? Ushbu savolga Amerikalik siyosatshunos olim Jozef Nay nazariyasida bayon etilgan "yumshoq kuch" konsepsiyasidan javob olishimiz mumkin. Uning fikriga ko'ra, madaniyat davlatlararo munosabatlarda bevosita siyosiy ta'sir vositasiga aylanadi. Shu nuqtayi nazardan xalqaro festivallar millatlararo muloqot maydoni, davlatlarning ijobiy imidjini yaratish va milliy qadriyatlarni jahon miqyosida targ'ib qilish vositasi sifatida alohida o'rin tutadi. Yumshoq kuch deganda mamlakatning madaniyat, qadriyatlar va siyosat kabi majburiy bo'lmagan vositalar orqali boshqalarga ta'sir o'tkazish qobiliyati tushuniladi. Nayning fikricha, yumshoq kuch zamonaviy dunyoda xalqaro munosabatlarning hal qiluvchi jihati hisoblanadi. Mamlakatning yumshoq kuchi uchta asosiy manbaadan kelib chiqishi mumkinligini ta'kidlaydi: uning madaniyati (jumladan, til, musiqa, kino va adabiyot), ijtimoiy qadriyatlar va siyosatlar (demokratiya va inson huquqlari kabi) va tashqi siyosati (diplomatiya va rivojlanish yordami). Ijobiy imidjni yaratish va umumiy qadriyatlarga murojat qilish orqali mamlakatlar kuch va majburlash vositalaridan foydalanmasdan boshqalarni o'z manfaatlariga jalb qilishlari mumkin. Madaniyat millatning yumshoq kuchini shakllantirishda hal qiluvchi rol o'ynaydi. Nayning ta'kidlashicha, agar mamlakat madaniyati jahon miqyosida jozibali va hurmatga sazovor bo'lsa, u yumshoq kuch imkoniyatlarini oshiradi. Nay xalq diplomatiyasini mamlakatning yumshoq kuchini oshirish vositasi sifatida o'rganadi. U hukumatlar xalqaro tasavvurlarni ijobiy shakllantirish uchun diplomatik sa'y-harakatlar, madaniy almashinuvlar, ta'lim dasturlari va ommaviy axborot vositalari strategiyalaridan qanday foydalanishi mumkinligini tushuntiradi. Demak, madaniy diplomatiyada festivallar muhim ahamiyat kasb etadi. Chunki madaniyat va san'at sohasining turli yo'nalishlarida dunyo xalqlarini hech qanday zo'ravonliklarsiz, hech bir bosimlarsiz,

bir maydonda birlashtirib, bir maqsad sari yo'naltirishda xalqaro festivallar ayni muddao desak aslo mubolag'a emas.

Xalqaro madaniy aloqalarda festivallarning ijtimoiy ahamiyati ham alohida o'ringa ega bo'lib, madaniy festivallar xalqlar o'rtasidagi madaniy masofani qisqartiradi, tolerantlikni rivojlantiradi va insoniyatni yagona madaniy maydonga birlashtiradi. Shu bilan birga, ular turizm, iqtisodiyot va ta'lim sohasida ham muhim ijobiy ta'sir ko'rsatadi. Bugungi globallashuv davrida xalqlar o'rtasidagi madaniy aloqalar tobora kengayib bormoqda. Xalqaro festivallar nafaqat san'at va madaniyatning targ'iboti, balki ijtimoiy, siyosiy va iqtisodiy jarayonlarning ajralmas qismi sifatida ahamiyat kasb etmoqda. Ular jamiyat hayotida madaniyatlararo muloqot, ijtimoiy faollik, milliy identitetni mustahkamlash va turizmni rivojlantirish kabi ko'plab ijobiy ta'sirlarni yuzaga keltiradi. Xalqaro festivallar turli millat, til, din va madaniyat vakillarini birlashtiruvchi muhim maydon vazifasini bajaradi. Bunday tadbirlarda ishtirokchilar bir-birining madaniy merosini yaqindan o'rganadi, do'stona munosabatlarni rivojlantiradi. YUNESCO tomonidan qo'llab-quvvatlanadigan festivallar bunga yaqqol misoldir. Xalqaro festival o'tkaziladigan hududda mahalliy hamjamiyatning faolligi ortadi, volontyorlik harakati kuchayadi, yoshlar o'z iqtidorini namoyish etadi va yangi do'stlar ortiradi, bu jarayon ijtimoiy integratsiya va hamkorlikni ta'minlaydi. Har bir xalq festival orqali o'z milliy urf-odatlarini, san'atini namoyish etadi. Bu milliy g'ururni oshiradi, o'zlikni anglashni kuchaytiradi va xalqaro maydonda milliy madaniyatni targ'ib etadi, siyosiy keskinliklarni yumshatishga xizmat qiladi. Ko'plab sayyohlarni jalb etib, mahalliy iqtisodiyot rivojiga hissa qo'shadi, turizm sohasi kengayadi, xizmat ko'rsatish sifati yaxshilanadi, yangi g'oyalar, texnologiyalar va ijodiy yondashuvlarning almashinuvi uchun imkoniyat yaratadi. Bu esa san'atkorlar, ijodkorlar va mutaxassislarning tajriba almashuvi hamda ijodiy hamkorligini rivojlantiradi.

Bugungi kunda dunyoda yuzlab xalqaro madaniy festivallar mavjud. Masalan; jahon kinosining yirik madaniy voqeasi Fransiya davlatida o'tkazilib kelinayotgan "Kan" xalqaro festivali, zamonaviy san'atning xalqaro maydoniga aylangan Italiya shahrining "Venetsiya Biennalesi" festivali, teatr va musiqa san'atining markazlaridan biri bo'lgan Buyuk Britaniyaning "Edinburg" xalqaro festivali, xalq ijodi va musiqaning global ko'rinishini tarannum etuvchi Braziliyaning "Rio-de-Janeyro" karnavali va O'zbekistonning ko'hna Samarqand shahrida o'tkazilib kelinayotgan "Sharq taronalari" xalqaro festivallari turli xalqlar musiqiy merosining yaqinlashuv maydoni hisoblanadi. XXI – asrda festivallar faqatgina an'anaviy maydonlarda emas, balki onlayn formatda ham o'tkazilmoqda. Virtual konsertlar, onlayn ijodiy ko'rgazmalar, raqamli san'at festivallari yangi shakl sifatida shakllandi va madaniyatni global

auditoriyaga tezkor yetkazish imkonini bermoqda. Ushbu festivallarni o'tkazilishini qo'llab-quvvatlovchi YUNESCO, TURKSOY, ISESCO kabi xalqaro tashkilotlar festivallarni o'tkazilishiga bevosita homiylik qilish bilan bir qatorda, ularning ilmiy, tashkiliy va diplomatic asoslarini mustahkamlamoqda. YUNESCO tashabbusi bilan o'tkaziladigan festivallar milliy madaniyatlarni asrab-avaylash va targ'ib qilishning samarali vositasiga aylangan.

O'zbekiston tajribasida xalqaro madaniy festivallar, mamlakat mustaqillikka erishgach, xalqaro madaniy festivallar orqali o'zining boy tarixiy va madaniy merosini dunyo miqyosida namoyish eta boshladi. Bu jarayon mamlakatning xalqaro imidjini mustahkamlash va milliy madaniyatini keng targ'ib qilishga xizmat qilmoqda. 1997-yildan buyon Samarqandda o'tkazilib kelinayotgan "Sharq taronalari" festivali xalqaro musiqiy hamkorlikning yirik maydoniga aylangan. Unda yuzlab davlatlardan san'atkorlar ishtirok etib, Sharq va G'arb musiqiy an'analarini bir sahnaga olib chiqmoqda. Bu festival O'zbekistonni jahon madaniy maydonida yirik markaz sifatida tanitmoqda.

Ana shunday festivallardan yana biri xalqaro Maqom san'ati festivalidir. Maqom san'ati Sharq xalqlari, xususan, o'zbek xalqining eng qadimiy va yuksak musiqiy meroslaridan biridir. U xalqning ruhiy-ma'naviy hayoti, estetik qarashlari va badiiy tafakkurini mujassam etgan bebaho boylikdir. Bugungi globallashuv jarayonida milliy merosni asrab-avaylash, uni xalqaro miqyosda targ'ib qilish davlat siyosatining ustuvor yo'nalishiga aylandi. Shu maqsadda 2018-yildan buyon O'zbekiston Respublikasi Prezidentining tashabbusi bilan Shahrisabz shahrida "Xalqaro maqom san'ati" festivali o'tkazilib kelinmoqda. Mazkur festival qisqa davrda nafaqat milliy, balki xalqaro darajada keng e'tirof etilib, madaniyatlararo muloqotning samarali maydoniga aylandi. 2018-yilda maqom san'ati YUNESCONing insoniyatning nomoddiy madaniy merosi ro'yhatiga kiritilganidan so'ng, O'zbekistonda bu yo'nalishga e'tibor yanada kuchaydi. Maqom san'ati festivalini o'tkazish borasida oldinga bir nechta maqsadlar belgilandi, jumladan, maqom san'atini chuqur o'rganish, rivojlantirish va kelajak avlodga yetkazish, dunyo xalqlari o'rtasida maqom san'ati orqali madaniy hamkorlikni mustahkamlash, xalqaro ilmiy hamjamiyat e'tiborini maqom merosiga qaratish, turizm va madaniy diplomatiya sohasida O'zbekistonning o'rnini kuchaytirish kabi vazifalar belgilab olindi. Festival Shahrisabzda – buyuk sarkarda Amir Temur vatani va tarixiy meros maskanida o'tkazilishi bilan ham alohida ramziy ma'noga egadir. Festivalga O'zbekistondagi maqom ansambllari bilan bir qatorda, Misr, Eron, Hindiston, Turkiya, Tojikiston, Turkmaniston kabi ko'plab mamlakatlardan mashxur ijodkorlar, ansambllar va olimlar jalb qilinadi. Festival davomida olimlar maqomning musiqiy tuzilishi, ijro an'analari,

regionlararo farqlari haqida tadqiqotlar olib borishadi. Bu esa maqomni nafaqat san'at asari sifatida, balki insoniyatning umumiy madaniy xazinasining bir qismi sifatida o'rganish imkonini beradi. O'zbekiston tajribasi shuni ko'rsatadiki, xalqaro madaniy festivallar orqali mamlakat milliy madaniyatini dunyoga tanitish bilan bir qatorda, jahon xalqlarining yaqinlashuviga ham hissa qo'shmoqda. Kelgusida bu festival diplomatiyasini kengaytirish global hamkorlikni yanada mustahkamlashda muhim ahamiyat kasb etadi.

Xulosa o'rnida shuni ta'kidlash joizki, xalqaro madaniy festivallar – bu jahon xalqlarini yaqinlashtirish, o'zaro ishonch va madaniy almashinuvni kuchaytirishning samarali vositasidir. Ular xalqlar o'rtasida do'stlikni mustahkamlab, milliy madaniyatlarning jahon madaniyatiga qo'shilishini ta'minlaydi. Shuningdek, festivallar “madaniy diplomatiya”ning muhim yo'nalishi sifatida global tinchlik, barqaror taraqqiyot va madaniy xilma-xillikni qo'llab-quvvatlaydi. Shu bois festival madaniyatlarni muloqotning samarali platformasi, O'zbekistonning boy madaniy merosini keng targ'ib etuvchi vosita sifatida tarixda alohida o'rin egallaydi.

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**ПРОБЛЕМЫ ПРАВОВОГО РЕГУЛИРОВАНИЯ РЕОРГАНИЗАЦИИ
ОБЩЕСТВ С ОГРАНИЧЕННОЙ ОТВЕТСТВЕННОСТЬЮ:
КОМПАРАТИВНЫЙ АНАЛИЗ АНГЛО-САКСОНСКОЙ И РОМАНО-
ГЕРМАНСКОЙ ПРАВОВЫХ СИСТЕМ**

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АННОТАЦИЯ

Настоящее исследование посвящено комплексному анализу правовых механизмов реорганизации обществ с ограниченной ответственностью в контексте англо-саксонской и романо-германской правовых систем. Актуальность работы обусловлена недостаточной разработанностью теоретико-правовых основ реорганизации в национальном законодательстве Республики Узбекистан и необходимостью имплементации передового зарубежного опыта. В исследовании выявлены системные проблемы правового регулирования процедур реорганизации, включая терминологическую неопределенность, пробелы в защите прав кредиторов и миноритарных участников, а также недостатки механизмов государственного контроля. Проведен критический анализ законодательства Республики Узбекистан, Великобритании, Германии, Латвии и Китайской Народной Республики с выявлением оптимальных правовых конструкций. Предложены концептуальные направления совершенствования национального законодательства в части процедурных гарантий, критериев допустимости реорганизации и механизмов судебного контроля.

Ключевые слова: Общество с ограниченной ответственностью, реорганизация, слияние, присоединение, разделение, выделение, преобразование, корпоративные правоотношения, защита прав кредиторов, компаративный анализ, англо-саксонская правовая система, романо-германская правовая система, M&A транзакции, правовой механизм.

**PROBLEMS OF LEGAL REGULATION OF THE REORGANIZATION OF
LIMITED LIABILITY COMPANIES: A COMPARATIVE ANALYSIS OF
THE ANGLO-SAXON AND ROMANO-GERMANIC LEGAL SYSTEMS**

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Abstract

This study is devoted to a comprehensive analysis of the legal mechanisms of limited liability company (LLC) reorganization in the context of the Anglo-Saxon and Romano-Germanic legal systems. The relevance of the research stems from the insufficient development of theoretical and legal foundations of reorganization in the national legislation of the Republic of Uzbekistan and the need to implement advanced foreign experience. The study identifies systemic problems of legal regulation of reorganization procedures, including terminological uncertainty, gaps in the protection of creditors' and minority shareholders' rights, as well as deficiencies in state control mechanisms. A critical analysis is conducted of the legislation of Uzbekistan, the United Kingdom, Germany, Latvia, and the People's Republic of China, with the identification of optimal legal constructs. Conceptual directions are proposed for improving national legislation with regard to procedural safeguards, criteria of admissibility of reorganization, and mechanisms of judicial oversight.

Keywords: Limited liability company, reorganization, merger, acquisition, division, separation, transformation, corporate legal relations, protection of creditors' rights, comparative analysis, Anglo-Saxon legal system, Romano-Germanic legal system, M&A transactions, legal mechanism.

1. Введение

Реорганизация юридических лиц представляет собой сложный правовой институт, регулирующий трансформацию корпоративных структур в условиях изменяющейся экономической конъюнктуры. В современных условиях глобализации экономических отношений и интеграции Республики Узбекистан в международное правовое пространство возрастает необходимость унификации национального законодательства с международными стандартами корпоративного управления.

Согласно Гражданскому кодексу Республики Узбекистан [1] и Закону «Об обществах с ограниченной и дополнительной ответственностью» от 06.12.2001 года № ЗРУ-310-II (в редакции от 07.02.2025 года), [2] законодатель установил пять форм реорганизации: слияние, присоединение, разделение, выделение и преобразование. Однако правоприменительная практика выявляет

существенные пробелы [3] в регулировании данных процедур, что создает предпосылки для злоупотреблений и нарушения прав заинтересованных лиц. Компаративный анализ зарубежного опыта свидетельствует о наличии альтернативных моделей правового регулирования реорганизации, каждая из которых обладает специфическими преимуществами и недостатками, требующими критического осмысления применительно к национальной правовой системе.

2. СИСТЕМНЫЕ ПРОБЛЕМЫ ПРАВОВОГО РЕГУЛИРОВАНИЯ РЕОРГАНИЗАЦИИ В РЕСПУБЛИКЕ УЗБЕКИСТАН

2.1. Терминологическая неопределенность и концептуальные противоречия

Анализ действующего законодательства Республики Узбекистан выявляет отсутствие легальной дефиниции ключевых понятий, используемых в процессе реорганизации. В частности, законодатель не разграничивает понятия "правопреемство" и "универсальное правопреемство", что создает неопределенность в вопросах объема передаваемых прав и обязанностей [4].

Отсутствует нормативное определение понятия "поглощение" (hostile takeover), которое de facto имеет место в практике корпоративных отношений, но не получило адекватной правовой регламентации. Это создает правовой вакуум и возможность для недружественных захватов корпоративного контроля с использованием институтов реорганизации [5].

2.2. Недостаточность процедурных гарантий прав кредиторов

Действующая редакция Закона об ООО предусматривает формальное уведомление кредиторов о принятом решении о реорганизации (статья 39), однако не устанавливает:

- обязательность проведения независимого аудита финансового состояния реорганизуемого общества [6];
- механизм досудебного урегулирования требований кредиторов;
- гарантии сохранения реального обеспечения обязательств при трансформации организационно-правовой формы;
- критерии недействительности реорганизации, осуществленной в обход интересов кредиторов [7].

Латвийский опыт, закрепленный в статье 345 Коммерческого закона, предусматривает специальные меры защиты кредиторов, включая обязательное предоставление обеспечения при определенных формах реорганизации, что представляется целесообразным для имплементации в национальное законодательство.

2.3. Пробелы в защите прав миноритарных участников

Законодательство Республики Узбекистан не содержит эффективного механизма защиты прав миноритарных участников при реорганизации, инициированной мажоритарными акционерами. Отсутствуют: нормы об обязательном выкупе долей несогласных участников по справедливой рыночной стоимости [8]; процедуры независимой оценки стоимости долей при реорганизации; специальные требования к кворуму и большинству голосов при принятии решений о реорганизации, затрагивающих существенные интересы общества.

2.4. Недостатки механизма государственного контроля

Действующее законодательство устанавливает преимущественно регистрационный характер государственного контроля за процедурой реорганизации, что не позволяет своевременно выявлять недобросовестные действия участников. Отсутствует механизм предварительного контроля антимонопольного органа при реорганизации, которая может привести к ограничению конкуренции [9].

3. ОСОБЕННОСТИ РЕОРГАНИЗАЦИИ В АНГЛО-САКСОНСКОЙ ПРАВОВОЙ СИСТЕМЕ

3.1. Правовое регулирование в Великобритании

Англо-саксонская модель характеризуется отсутствием единой кодификации норм о реорганизации и наличием множественности источников правового регулирования. Ключевыми актами выступают Companies Act 2006 и City Code on Takeovers and Mergers, которые устанавливают дифференцированный подход к регулированию реорганизации публичных (public limited companies) и частных (private limited companies) обществ.

Принципиальное значение имеет разграничение понятий "merger" и "acquisition". Согласно Companies Act 2006, merger применительно к публичным компаниям включает две категории [10]:

a) merger by formation of a new company – классическое слияние путем создания новой компании, при котором предприятия, имущество и обязательства двух или более публичных компаний передаются вновь созданной компании, которая не обязательно должна быть публичной [11];

b) merger by absorption – слияние путем поглощения, при котором предприятия, имущество и обязательства одной или нескольких публичных компаний передаются другой существующей публичной компании.

Acquisition (takeover) представляет собой приобретение контроля над целевой компанией (target company) путем скупки ее акций и подразделяется на:

friendly takeover – дружественное поглощение, осуществляемое с согласия руководства целевой компании [12];

hostile takeover – недружественное поглощение, реализуемое вопреки воле менеджмента целевой компании [13].

Особый интерес представляет институт **reverse takeover (reverse merger)** – обратного поглощения, при котором меньшая по размеру компания приобретает контроль над большей, либо частная компания приобретает публичную для избежания длительной процедуры IPO.

3.2. Процедурные особенности и гарантии

City Code on Takeovers and Mergers устанавливает детальные процедурные правила проведения поглощений, включая:

- обязательность публичного предложения о приобретении акций (mandatory bid rule) при достижении [14] определенного порога контроля;
- равное отношение к акционерам (equal treatment principle) [15];
- запрет манипулирования рынком в период реализации сделки;
- требования к раскрытию информации и транспарентности процесса.

Правоприменительная практика Takeover Panel демонстрирует эффективность саморегулирования в сфере корпоративных реорганизаций при наличии развитой инфраструктуры фондового рынка [16].

4. РОМАНО-ГЕРМАНСКАЯ МОДЕЛЬ: СРАВНИТЕЛЬНЫЙ АНАЛИЗ

4.1. Германская модель: кодификация и процедурные гарантии

Германское право характеризуется высокой степенью кодификации норм о реорганизации. Umwandlung Gesetz (Закон о преобразованиях) 1994 года устанавливает исчерпывающий перечень форм реорганизации и детальные процедурные требования [17].

Принципиальными особенностями германской модели являются:

- обязательность нотариального удостоверения договора о реорганизации [18];
- требование об экспертной оценке активов и обязательств реорганизуемых обществ;
- развитая система судебного контроля на всех стадиях процедуры;
- специальные нормы о защите трудовых прав работников реорганизуемых обществ.

4.2. Латвийский опыт: баланс публичных и частных интересов

Коммерческий закон Латвии устанавливает сбалансированную систему процедурных гарантий, включающую:

1. Обязательность независимого аудита проекта реорганизации с оценкой достаточности имущества для формирования уставного капитала приобретающего общества (за исключением случаев согласия всех участников).

2. Составление проспекта реорганизации, обеспечивающего информационную прозрачность процесса для всех заинтересованных лиц.
3. Специальные меры защиты кредиторов: публикация уведомления в официальном вестнике "Latvijas Vēstnesis" с предоставлением 15-дневного срока для заявления требований; право кредиторов требовать предоставления обеспечения (за исключением случаев преобразования общества капитала в товарищество).
4. Поэтапный государственный контроль: регистрация проекта решения о реорганизации; контроль соблюдения процедурных требований; окончательная регистрация реорганизации не ранее 3 месяцев с даты публикации уведомления.

4.3. Китайская модель: публично-правовое регулирование

Законодательство КНР о компаниях устанавливает детализированную процедуру реорганизации, включающую обязательные стадии:

1. Проведение аудита и независимой оценки активов;
2. Принятие решения общим собранием участников квалифицированным большинством;
3. Заключение учредительного соглашения (для преобразований);
4. Верификация капитальных взносов специализированной аудиторской организацией;
5. Проведение учредительного собрания с утверждением устава и избранием органов управления;
6. Государственная регистрация изменений.

Данная модель характеризуется высокой степенью государственного контроля и формализации процедуры, что минимизирует риски злоупотреблений, однако снижает гибкость механизма реорганизации [19].

5. ПРОБЛЕМЫ КВАЛИФИКАЦИИ И РАЗГРАНИЧЕНИЯ ФОРМ РЕОРГАНИЗАЦИИ

5.1. Проблема merger of equals

Англо-саксонская практика выработала концепцию "merger of equals" – слияния равных, при котором публично декларируется равенство участвующих компаний в реорганизации, хотя фактически имеет место поглощение. Данная конструкция используется для минимизации репутационных рисков поглощаемой компании и сохранения лояльности клиентов.

Узбекское законодательство не содержит норм, позволяющих квалифицировать подобные сделки и определять их действительную правовую природу, что создает возможности для обхода императивных норм о защите прав участников и кредиторов.

5.2. Проблема разграничения **demerger**, **spin-off** и **split-off**

Англо-саксонское право использует термины "demerger", "spin-off" и "split-off" для обозначения различных форм выделения и разделения, которые в узбекском законодательстве охватываются единым понятием. Это создает сложности при юридической квалификации трансграничных реорганизаций с участием узбекских компаний.

Demerger может обозначать как выделение (при сохранении исходной компании), так и разделение (при ее ликвидации).

Spin-off предполагает распределение акций выделенной компании среди акционеров материнской компании пропорционально их долям.

Split-off означает обмен акций материнской компании на акции выделенной компании, что приводит к изменению структуры акционерного капитала [20].

6. КОНЦЕПТУАЛЬНЫЕ НАПРАВЛЕНИЯ СОВЕРШЕНСТВОВАНИЯ ЗАКОНОДАТЕЛЬСТВА РЕСПУБЛИКИ УЗБЕКИСТАН

На основании проведенного компаративного анализа представляется целесообразным осуществление следующих законодательных новелл:

6.1. Унификация терминологического аппарата

Необходимо включение в Закон об ООО легальных дефиниций ключевых понятий: "недружественное поглощение" с установлением механизмов противодействия рейдерским захватам; "обратное поглощение" с определением критериев допустимости и процедурных особенностей; "универсальное правопреемство" с четким определением объема передаваемых прав и обязанностей.

6.2. Усиление процедурных гарантий

Представляется целесообразным введение: обязательного независимого аудита финансового состояния реорганизуемых обществ (по аналогии с латвийской моделью) с освобождением от данного требования при наличии единогласного согласия всех участников; института обязательного предложения о выкупе долей несогласных участников по справедливой рыночной стоимости, определяемой независимым оценщиком; обязанности составления проспекта реорганизации, содержащего экономическое обоснование, оценку влияния на права участников и кредиторов, прогноз финансовых показателей.

6.3. Совершенствование механизма защиты прав кредиторов

Необходимо установление: права кредиторов требовать предоставления надлежащего обеспечения либо досрочного исполнения обязательств при определенных формах реорганизации (слияние, присоединение, преобразование); обязанности реорганизуемого общества опубликовать

уведомление в средствах массовой информации не менее чем за 60 дней до завершения процедуры; специальных оснований признания реорганизации недействительной в случае доказанности ее осуществления в целях уклонения от исполнения обязательств перед кредиторами.

6.4. Введение антимонопольного контроля

Необходимо законодательное закрепление обязательности предварительного согласования с антимонопольным органом реорганизации в форме слияния и присоединения при достижении определенных критериев (совокупная стоимость активов, совокупная выручка, доля на товарном рынке).

6.5. Развитие института судебного контроля

Представляется целесообразным введение института судебного оспаривания решения о реорганизации миноритарными участниками и кредиторами при наличии обоснованных возражений относительно соблюдения процедуры или ущемления их прав.

7. Заключение

Проведенный компаративный анализ свидетельствует о наличии существенных различий в подходах к правовому регулированию реорганизации обществ с ограниченной ответственностью в англо-саксонской и романо-германской правовых системах.

Англо-саксонская модель характеризуется гибкостью правового регулирования, множественностью форм реорганизации, развитой системой саморегулирования и значительной ролью судебных прецедентов. Романо-германская модель отличается высокой степенью кодификации, детализацией процедурных требований, усиленной защитой прав кредиторов и миноритарных участников.

Законодательство Республики Узбекистан, относящееся к романо-германской правовой семье, требует существенного совершенствования путем имплементации оптимальных элементов обеих правовых систем. Приоритетными направлениями реформирования являются: унификация терминологии, усиление процедурных гарантий, развитие механизмов защиты прав кредиторов и миноритарных участников, введение антимонопольного и судебного контроля за процедурой реорганизации.

Имплементация предложенных новелл будет способствовать повышению инвестиционной привлекательности национальной юрисдикции, развитию корпоративных отношений и интеграции Республики Узбекистан в глобальное экономическое пространство при обеспечении баланса частных и публичных интересов.

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INNOVATIVE APPROACHES TO THE INTERPRETATION OF ABSCISSIAL AND ORDINAL INTERDISCIPLINARY CONNECTIONS IN THE EDUCATIONAL PROCESS

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Abstract. The article explores innovative approaches to the interpretation and application of abscissial (horizontal) and ordinal (vertical) interdisciplinary connections within the educational process. Theoretical and methodological foundations are analyzed, emphasizing the importance of integrating these connections to foster holistic knowledge acquisition, critical and creative thinking, and competence-based learning. It is argued that innovative pedagogical strategies-such as project-based learning, digital technologies, and STEAM education-significantly enhance the effectiveness of abscissial and ordinal integration in modern education.

Keywords: interdisciplinary connections, abscissial links, ordinal links, innovative interpretation, knowledge integration, educational process, competence-based learning.

Introduction

The growing complexity of knowledge and the accelerating pace of scientific and technological progress require a fundamental rethinking of how disciplines are interconnected in education. Abscissial (horizontal) and ordinal (vertical) interdisciplinary connections provide the basis for creating a unified, coherent learning environment. Innovative interpretations of these connections are essential for preparing students to face real-world challenges, enabling them to transfer knowledge across disciplines and apply it in practice.

Theoretical and Methodological Foundations

Abscissial interdisciplinary connections represent horizontal integration, where concepts, categories, and principles are shared across multiple subjects. For example, the concept of "energy" is simultaneously explored in physics, biology, and geography, providing students with a comprehensive understanding of its multifaceted nature.

Ordinal connections, by contrast, reflect vertical continuity and progression in learning. They ensure the sequential development of knowledge-from simple to complex, from elementary to abstract. This approach resonates with Piaget's theory of cognitive development and Vygotsky's concept of the zone of proximal development, providing a structured basis for gradual knowledge acquisition.

The methodological foundations of modern interpretation include:

System approach: viewing education as an interconnected whole.

Competence-based approach: focusing on transferable skills and metacognitive strategies.

Interdisciplinary approach: emphasizing integration across subject boundaries.

Activity-based approach: prioritizing active student engagement through projects, experiments, and research activities.

Innovative Approaches in Practice

Innovative pedagogical strategies expand the possibilities of applying abscissial and ordinal interdisciplinary connections:

1. **Project-Based Learning (PBL):** Encourages students to explore real-life problems that require knowledge from multiple disciplines, thereby reinforcing both horizontal and vertical integration.
2. **Digital Technologies:** Online platforms, virtual simulations, and digital labs enable students to visualize interdisciplinary connections and experiment with them interactively.
3. **STEAM Education:** The combination of science, technology, engineering, arts, and mathematics is inherently built on abscissial and ordinal links, allowing students to see connections between theoretical knowledge and practical applications.
4. **Research and Inquiry-Based Learning:** Engages students in constructing knowledge through observation, hypothesis testing, and cross-disciplinary investigation.

Practical Significance

The practical significance of innovative interpretations of abscissial and ordinal connections lies in their capacity to:

Foster critical and creative thinking;

Develop functional literacy and problem-solving skills;

Bridge the gap between theory and practice;

Motivate students by showing the real-world relevance of school subjects.

These approaches also strengthen students' ability to transfer knowledge across contexts, preparing them for the demands of higher education, the labor market, and lifelong learning.

The practical significance of innovative interpretations of abscissial and ordinal interdisciplinary connections extends beyond theoretical integration, offering tangible benefits to both students and educators.

Firstly, abscissial connections enable the design of integrated lessons where a single phenomenon is studied through multiple disciplinary perspectives. For instance, the

concept of “sustainability” can be simultaneously addressed in geography (environmental systems), economics (resource management), and social studies (societal impact). This fosters holistic learning and equips students with the ability to analyze complex global issues from various angles.

Secondly, ordinal connections support the structured development of knowledge across grade levels. By ensuring continuity and progression, they help avoid knowledge gaps and create a logical framework for long-term learning. For example, mathematics education progresses from basic arithmetic in primary school to algebra and calculus in secondary education, reinforcing both conceptual depth and analytical skills.

In practice, these connections enhance the development of key 21st-century competencies, such as:

Cognitive skills: analysis, synthesis, and evaluation of interdisciplinary knowledge;

Communicative skills: collaboration, dialogue, and negotiation in group projects;

Creative thinking: generating original solutions through cross-disciplinary synthesis;

Practical skills: applying academic concepts to real-life scenarios.

Moreover, innovative approaches to these connections are particularly valuable in **project-based and inquiry-driven education**, where students must integrate knowledge from science, technology, engineering, arts, and mathematics (STEAM) to address authentic challenges. For example, designing a solar-powered model car requires physics (energy transfer), mathematics (measurement and calculation), and engineering principles, while also stimulating creativity and teamwork.

Digital platforms and interactive technologies further expand these opportunities by providing simulations, virtual labs, and collaborative tools, making interdisciplinary learning accessible and engaging.

Thus, the practical significance of abscissial and ordinal connections lies in preparing learners not only for academic success but also for active participation in society. By bridging the gap between theory and practice, these approaches cultivate adaptability, problem-solving abilities, and readiness for lifelong learning in a rapidly changing world.

Example from primary education (Grades 3–4): An integrated lesson on “Water Conservation” demonstrates the practical application of abscissial and ordinal connections. In mathematics, students calculate the amount of water consumed by a household in one day. In environmental science, they study the importance of saving water and its role in ecosystems. In social studies, they explore how communities can work together to reduce water waste. This not only develops mathematical skills such as measurement and estimation but also builds ecological awareness and social

responsibility. Such interdisciplinary tasks encourage students to see the relevance of their learning in daily life and motivate them to take action.

Digital platforms and interactive technologies further expand these opportunities by providing simulations, virtual labs, and collaborative tools, making interdisciplinary learning accessible and engaging.

Thus, the practical significance of abscissal and ordinal connections lies in preparing learners not only for academic success but also for active participation in society. By bridging the gap between theory and practice, these approaches cultivate adaptability, problem-solving abilities, and readiness for lifelong learning in a rapidly changing world.

Conclusion

Innovative approaches to the interpretation of abscissal and ordinal interdisciplinary connections are central to modernizing education. They provide a foundation for holistic learning, integration of knowledge, and the development of key competences that are vital in the 21st century. By implementing project-based learning, digital technologies, and STEAM-oriented practices, educators can create learning environments that not only convey knowledge but also inspire students to think critically, act creatively, and apply their learning in meaningful ways.

In conclusion, the interpretation of abscissal and ordinal interdisciplinary connections provides a valuable framework for rethinking modern educational processes. By aligning horizontal integration (abscissal connections) with vertical progression (ordinal connections), educators can foster a more coherent, systematic, and learner-centered curriculum. This dual perspective not only strengthens the logical sequence of knowledge acquisition but also ensures its practical relevance in real-life contexts.

Furthermore, the integration of innovative approaches—such as digital technologies, project-based learning, and competency-oriented strategies—enhances the effectiveness of interdisciplinary connections, enabling students to engage in deeper cognitive activity and creative problem-solving. The findings underscore that fostering abscissal and ordinal connections contributes significantly to the development of critical and analytical thinking, the ability to apply knowledge across domains, and the preparation of learners for the challenges of the 21st century.

Future research could focus on exploring the practical mechanisms of applying this theoretical model in diverse educational systems, as well as evaluating its long-term impact on student performance and professional competencies.

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