EUROPEAN JOURNAL OF LIFE SAFETY AND STABILITY (EJLSS)
ISSN 2660-9630
www.ejlss.indexedresearch.org Volume 15, 2022 ||

Functional Digestive Disorders in Young Children

Turaev Telman Timurovich, Temirov Murojon Telmanugli
Bukhara State Medical Institute, Bukhara, Republic of Uzbekistan

Abstract: *The article presents generalized information on functional digestive disorders in young children. Epidemiology, causes of development, clinical manifestations, and diagnostic criteria of infantile regurgitation, infantile colic, and functional constipation are described. Special attention is paid to the medical and dietary correction of this pathology in children of the first year of life. The use in practice of the proposed recommendations for feeding children of the first year of life with functional digestive disorders will allow to quickly stop the clinical manifestations of the disease, without resorting to medication.*

Keywords: *children, functional digestive disorders, diagnostic criteria, drug correction, milk formulas.*

Date of Submission: 19-02-2022 ***Date of Acceptance: 12-3-2022***

It is known that disorders that occur in any system of the child's body are divided into organic and functional. Organic pathology is associated with damage to the organ structure, the degree of severity of which can vary widely: from gross congenital malformations to minimal fermentopathy. If organic pathology is excluded, then we can talk about functional disorders. Functional disorders of the digestive system are disorders of the functions of any organ of the gastrointestinal tract (GIT), the causes of which lie outside the affected organ and are associated with changes in its regulation. According to D. A. Drossman, " this is a diverse combination of gastrointestinal symptoms without structural or biochemical abnormalities "[1]. Functional disorders of the digestive system are one of the most common problems, especially among children in the first months of life. According to various authors, these disorders accompany 55-75 % of infants. Abdominal recurrent pain in children is functional in 90 % of cases. The prevalence of dyspeptic complaints varies widely and ranges from 10 to 54 %, while organic pathology is detected only in 1/3 of cases [2, 3]. The high prevalence and wide range of manifestations of functional digestive disorders in young children are associated with anatomical and physiological features of the child's body. Children under 3-4 months of age have insufficient saliva secretion. The esophagus has a funnel-shaped shape (up to 3 years), there are no physiological constrictions, complete coverage of the esophagus by the diaphragm legs; its muscle layer is poorly developed. The stomach is characterized by a small volume, spherical shape, slow emptying mainly due to hypochlorhydria. Special importance in the formation of functional digestive disorders is attached to the underdeveloped cardiac sphincter of the stomach and a relatively high tone of the pylorus. In young children, the bile-forming function of the gall bladder, which has a pear-shaped, spindle-shaped or S-shaped shape, is reduced. The excretory function of the pancreas in infants is not sufficiently developed. The intestinal mucosa is characterized by enzymatic immaturity (especially in premature infants) and has a high permeability. Long-term development of the intestinal microbiota is caused

by a wide range of ante -, intra-and postnatal causes. Weak myelination nervous fibers and intestinal plexuses, imperfect innervation of the gastrointestinal tract due to the differentiation of the sympathetic and parasympathetic systems also contribute to the occurrence of functional disorders. Thus, the high prevalence of functional digestive disorders in young children is due to a variety of etiologicallye significant causes, the main of which are anatomical and physiological features, which suggests resorting mainly to non-drug (dietary) correction of disorders. Infantile regurgitation (functional regurgitation) is the passive, involuntary return of esophageal or gastric contents to the oral cavity shortly after ingestion. Prevalence. According to population-based studies, regurgitation occurs in approximately 50% of children before the age of 3 months, in 20% at six months, and in 5% of children per year. Regurgitation is mainly observed in the first 4-5 months of life, much less often observed at the age of 6-7 months, after the introduction of thicker food-complementary foods, practically disappearing by the end of the first year of life, when the child spends a significant part of the time in an upright position [3, 4]. Predisposing factors. Predisposing factors to regurgitation, in addition to the anatomical and physiological features of the digestive system in children, are age-related morphological and functional features of the central and autonomic nervous systems. Functional regurgitation can be caused by over-feeding the child due to disorderly feeding, excessive nutrition, and force-feeding. Swallowing air during feeding with too active sucking or improper application of the baby to the mother's breast, improper bottle feeding leads to the development of aerophagia and, as a result, regurgitation. Increased gas formation in the intestines associated with enzymatic insufficiency, intestinal dysbiosis, etc., leads to increased pressure in the abdominal cavity, which can also cause regurgitation in children. Infant regurgitation can be provoked by improper selection of milk formula, tight swaddling of the baby, etc. Clinic. When making a diagnosis of "Functional regurgitation", it is necessary to follow the main and additional criteria. The main criteria include: regurgitation 2 times a day or more for 3 weeks or more, absence of nausea, belching, vomiting with blood admixture, respiratory disorders (aspiration, apnea), weight loss or delayed physical development, difficulty swallowing.

In most children, regurgitation can be considered as a certain variant of the normal reaction of the body, since they do not lead to pronounced changes in the state of health of children (no more than 2 points on the scale of regurgitation intensity assessment).

Three or more points on this scale most often indicate a pathological condition that requires an in-depth examination of the child. In addition, concern for parents and health professionals should call after blowing clinical manifestations: persistent symptomtick for 12 months; the increase in regurgitation after e 4 months of life; significant about Yamoriginalimage content; the occurrence of regurgitation through 1 hour after feeding; flat weight curve or loss of body weight; food refusal or reduction of food reactions; respiratory disorders; the appearance of pathological primain this uruguaina content; diarrhea or lackvie self-defecation; whenMES blood in the stool or melena; a forced position during feeding; skin Allergy or burdened allergoanamnez.

Treatment. Correction of functional regurgitation in children involves 2 stages. The first (non-drug) stage is aimed at explanatory work with parents. Infant regurgitation has a negative psychological impact on parents. Positive psychological contact of the doctor with the parents can remove the need for any further activities. It is necessary to eliminate the identified defects in feeding the child, including excluding obligate allergens from the mother's diet. It is recommended to increase the frequency of feedings with a decrease in the single volume of food. Special importance in the correction of regurgitation is given to the so-called postural therapy. Feeding the baby should take place in the mother's sitting position, with the child's body at an angle of 45-60°, which contributes to a faster passage of food into the stomach. Holding the baby upright after feeding should be long enough, at least 20-30 minutes. Postural treatment should be carried out not only throughout the day, but also at night, when the cleansing of the lower esophagus from the contents is disrupted. An

important role in the treatment of regurgitation belongs to diet therapy, which depends on the type of feeding of the child. Persistent regurgitation is not an indication for transferring a child to mixed or artificial feeding. In case of mixed or artificial feeding, attention is drawn to the feeding regime of the child, the adequacy of the choice of milk mixtures, their volume, taking into account the age and body weight of the child. An example of an adequate anti-reflux mixture is NAN "Ant reflux", which has double protection against regurgitation. Partially hydrolyzed OPTIPROHA whey protein increases the rate of evacuation of gastric contents, while potato starch used as a thickener increases the viscosity of gastric contents. In some mixtures, carob gum is used as a thickener (for example, "Nutrilon Antireflux", "Bellakt" AR), which has a number of side effects [6,10,16].

Additionally, live probiotic cultures (L. reuteri 106 KOE/g) are added to the milk mixture, which help strengthen the immune system and maintain a healthy intestinal microflora. The advantage of NAN anti-reflux blend "Antireflux" is the possibility of its appointment in full or partial (with natural or mixed feeding) volume (before breastfeeding). The proportion of anti-reflux mixture containing carob gum, as a rule, is 1/3-1/2 of the total amount of nutrition. The duration of use of anti-reflux mixtures should be determined individually and can be quite long-2-3 months. Transfer to an adapted milk formula is carried out after achieving a stable therapeutic effect. In the case of persistent regurgitation, including gastro esophageal reflux disease, the second (drug) stage of therapy is recommended, including the appointment of sedatives, antispasmodic and antisecretory drugs, prokinetics in age-related doses for 2-3 weeks. Infantile colic — sudden (for no apparent reason) restlessness, crying or crying in children under 4 months of age for 3 hours or more per day at least 3 days a week for at least 1 week. Prevalence. The prevalence of infantile intestinal colic ranges from 5 to 19 % among full-term infants and about 70 % among premature infants [17, 18,21,22]. According to the results of various studies, the frequency of visits to a pediatrician associated with infantile colic ranges from 20 to 70%. According to A. Lucas etal., in children who are on artificial feeding, the frequency of intestinal colic decreases by 6 weeks of life, while with breastfeeding, on the contrary, it increases almost twice (from 16 to 31 %) [9,20,29]. Predisposing factors. Predisposing factors to the development of colic in young children can be problems both on the part of the mother and on the part of the child himself. A certain role is also assigned to external factors. By the predisposing factors of the mother include: adverse obstetric history, preeclampsia, lack of exercise during pregnancy; impaired nutrition of the nursing mother (eating fatty foods, foods that increase flatulence, excessive quantities of milk and dairy products); bad habits lactating women (Smoking, alcohol, drugs); emotional stress in the family. Predisposing factors on the part of the child should be considered: physiological immaturity and prematurity of the child; toxic-hypoxic damage to the central nervous system; congenital dysfunctions of the autonomic nervous system; functional immaturity of the digestive tract (immaturity of the nervous regulation of intestinal activity, imbalance of intestinal micro flora, immaturity of the intestinal mucosal barrier, motor difficulties, transient lactase deficiency insufficiency, etc.). As external predisposing factors, various feeding disorders usually occur: incorrect feeding technique (swallowing air during feeding); forced feeding; improper preparation of milk mixtures (excessive or insufficient dilution), etc. Clinic. The onset of intestinal colic is most often recorded at the age of 3-4 weeks. The presence of infant intestinal colic should be considered if a healthy child has attacks of excessive crying, irritability, agitation for no apparent reason. The child starts with small legs, his feet are often cold, his hands are pressed to the body. The attack usually begins unexpectedly, at the same time (from 18 to 22 hours), against the background of complete well-being, more often during or immediately after feeding. The duration of a colic attack can range from 10 minutes to 3 hours. Despite this, the general condition and physical development of the child usually do not suffer. After defecation or gas discharge, the child's condition is relieved. Intestinal colic is more common in boys and first-born babies. It is possible to combine intestinal colic with gastro esophageal reflux, dyspepsia, constipation. In case of severe anxiety in young children and the presence of

pathological symptoms of anxiety (fever, flat weight curve, vomiting with blood, blood in the stool, changes in the general blood test in the form of anemia, leukocytosis, ESR acceleration, pain on palpation of the abdomen or passive tension of the abdominal wall, refusal to eat, lack of independent stool), the pediatrician should prescribe an additional range of laboratory and instrumental studies in order to exclude other diseases of the digestive tract or acute surgical pathology. Intestinal colic can occur at any time of an infant's life. If colic occurs at the age of 3-4 weeks, it is most likely a manifestation of functional disorders of the gastrointestinal tract. Diagnostics. Diagnostic criteriaYam infant colic include: paroxysmal motor agitation, anxiety, crying, appears and stops suddenly, without any apparent cause, often in the evening, alternatingthese with light intervals; the duration of 3 hours a day or more, at least 3 days per week for one week; symptoms subsiding to 6 weeks of life, practicalnical disappears — 4 months; there is no loss of body weight, the weight olIbuki are age appropriate; there are no other pathological symptoms. Treatment. Treatment of patients with infantile colic begins with explanatory and psychotherapy work with parents. It is necessary to eliminate (if any) the identified defects in feeding the baby. With natural feeding of the child, it is recommended to exclude from the mother's diet products that are sources of obligate allergens and products that contribute to increased gas formation. It is advisable to assign fractional meals (every 2-3 hours). A highly effective component of the treatment is putting the baby on his stomach and massaging the abdomen. A special role in the elimination of infant colic is assigned to the implementation of recommendations on feeding children who are on artificial and mixed feeding. Diet therapy should help improve intestinal motility and the growth of normal micro flora, and if necessary, reduce the load of lactose. For the prevention and relief of infant colic in children, Nestle has developed the NAN Comfort milk formula, which provides triple protection. Unique live bacteria LRcomfortis (Lactobacillus reuteri) have a proven effect of eliminating colic [11]. They normalize the intestinal micro flora, increase the population of lactobacilli, suppress pathogenic microorganisms, strengthen the barrier functions of the intestinal wall and thereby improve intestinal motility. LRcomfortis (Lactobacillus reuteri) are isolated from breast milk and are natural representatives of the intestinal micro flora of a healthy child. The reduced content of lactose in NAN "Comfort" (2.69 g/100 ml) helps to reduce the frequency of abdominal pain, since some newborns have a transient lactase deficiency, which contributes to the development of increased gas formation. Due to the fact that one of the reasons for the development of infant colic may be hypersensitivity to cow's milk proteins, the NAN Comfort blend contains moderately hydrolyzed OPTIPROHA whey protein. The mixture is prescribed in full until the functional digestive disorder is eliminated. In the future, you can prescribe mixtures for healthy children. If the above measures are ineffective, drug therapy (enter sorbents, antispasmodics) is prescribed in a short course of up to 5-7 days. Functional constipation is a violation of defecation, which manifests itself in an increase in the intervals between acts of defecation compared to the individual physiological norm and (or) in systematic insufficient bowel movement. Currently, there is no established physiological norm for stool frequency in healthy children. The frequency of stool in infants who are breastfed is from 1 to 7 times a day, and for children on artificial feeding, the stool should be at least 1 time a day. During the introduction of complementary foods (4-6 months), the stool should be at least 2 times a day [30,31,32]. Prevalence. Constipation is detected in 20-35 % of children of the first year of life, and its functional nature is noted in 10 % of newborns and 90 % of children of the first year of life. According to A. Leung etal., 5-10 % of parents turn to a pediatrician for constipation [13], while G. IaconoIaconoetal. It is believed that 17.6% of parents of children suffering from this disorder contact a gastroenterologist [24, 25]. The onset of functional constipation in 40% of children occurs in the first year of life. Predisposing factors. Common causes of constipation in children of the first year of life are prematurity and concomitant functional immaturity, perinatal brain damage, burdened heredity for gastrointestinal diseases. Risk factors for the development of functional

constipation in young children are: poor nutrition of the nursing mother and child, rapid transition to artificial feeding, rapid transition from one milk formula to another, insufficient drinking regime, feeding children with milk formula with a high iron content, intolerance to cow's milk protein. A common cause of constipation in children of the first year of life can be intestinal dysbiosis, rickets, sideropenia, etc. Diagnostic criteria. When treating constipation, an important role is played by an explanatory conversation with parents, who need to explain that most often in young children constipation is associated with the inability to coordinate the abdominal and pelvic floor muscles or with a "fear of pot". It is equally important to observe the defecation regime: it is necessary to put the child (children over a year old) on the potty strictly at the same time for 5-10 minutes, but not more than 30 (even if he does not have the urge to defecate). The most physiological is defecation in the morning hours after breakfast. An active lifestyle of the child plays an important role in the treatment of constipation. Daily exercise should include a set of exercises aimed at normalizing the work of the large intestine. All children are also recommended to perform a clockwise massage of the anterior abdominal wall. Treatment of constipation in an infant usually includes additional drinking with water, correction of nutrition (after assessing the adequacy of nutrition by the method of control feeding). After the introduction of a thick complementary food, the child needs additional boiled water in a volume of up to 100 ml /day. The next stage involves correcting the diet. With natural feeding, it is a prerequisite to maintain breastfeeding. At the same time, the mother's diet should more widely include products that have a laxative effect due to the high content of dietary fiber (vegetables, fruits, coarse bread, cereals); exclude from the diet products that reduce the motor function of the large intestine (strong tea, cocoa, mucosal soups, jelly). If a child has a gastrointestinal form of food allergy, foods with high allergenic potential, especially whole cow's milk, should be excluded from the mother's diet. If the baby is on mixed or artificial feeding, then it is necessary to choose the optimal adapted mixture, which will be as close as possible in composition to breast milk. For the prevention and treatment of constipation, preference should be given to mixtures containing dietary fiber (BellaktAR,"Nutrilon" "Antireflux", "Frisom"), prebiotics (lactulose) (Sampler Bifidus) or adapted sour-milk mixtures (NAN sour-milk). These mixtures contribute to the formation of loose chyme, increase the viscosity and volume of feces, improve peristalsis and the growth of normal intestinal micro flora. Unique in its composition is the NAN "Comfort" milk formula, which is widely used for the prevention and treatment of functional constipation in children of the first year of life. Moderately hydrolyzed OPTIPROHA whey protein not only improves digestion, but also reduces the likelihood of developing an intestinal form of food allergy, the clinical manifestations of which may include functional constipation. Live bacteria LRcomfortis (Lactobacillus reuteri), which are natural representatives of the intestinal micro flora of a healthy child, have been proven to improve the motility of the baby's intestines and prevent the development of constipation. It should be noted that children of the first year of life suffering from constipation, the introduction of complementary foods is better to start with vegetable purees. If non-medicinal methods of therapy are ineffective, it is possible to prescribe medications, including dietary fiber preparations, various groups of laxatives, some probiotics, colon motility regulators, and a number of additional drugs. Drug therapy should be considered as an auxiliary, and not the main component of therapeutic measures for functional constipation in children. Lactulose, which belongs to the class of oligosaccharides, and for lax, which contains polyethylene glycol, are most widely used in young children, [26, 27,33,34]. If there is no effect from the measures taken, it is necessary to exclude chronic constipation.

BIBLIOGRAPHIC LIST

1. Drossman, D. A. The Functional Gastrointestinal Disorders. Diagnosis, Pathophysiology, and treatment. A Multinational Consensus. Little, brownand Company / D. A. Drossman. — BostonNewYork-Toronto-London, 1994. — P. 370. 2. Bogdanova, N. M. Digestive disorders in

children of early age: opportunities for correction with functional nutrition products / N. M. Bogdanova / / Lechashchyvrach. - 2013. - No. 6. - pp. 38-42.

2. Skvortsova V. A. Functional disorders of the gastrointestinal tract in infants: the role of diet therapy / V. A. Skvortsova [et al.] / / Lechashchyvrach. — 2011. — No. 6. — pp. 66-69.
3. Melnik, V. M.Gastroesophageal reflux in children of the first year of life with perinatal CNS damage, problems of correction / V. M. Melnik, T. A. Babanova // Questions of children's dietetics. - 2006. - Vol. 46, No. 1. - pp. 13-15. 5. SorvachevaT. N. Functional disorders of the gastrointestinal tract in infants: methods of correction. Sorvacheva, V. V. Pashkevich / / Lechashchyvrach. - 2006. - No. 4. - pp. 40-46. 6. Regurgitation in children: management trends and modern mixtures.NetrebenkoVoprosyprakticheskoipediatrii [Issues of practical pediatrics]. 2012, vol. 7, no. 1, pp. 71-74.
4. Харибова Е. А., Тешаев Ш. Ж. Морфофункциональные особенности тканевой организации энтероэндокринных клеток в возрастном аспекте //Проблемы биологии и медицины. – 2020. – №. 2. – С. 168-173.
5. Харибова Е. А. Особенности морфологии нейрональных ансамблей в тройничном узле человека //Морфология. – 2011. – Т. 140. – №. 5. – С. 123-124.
6. Khodzhaeva D. I. Changes in the Vertebral Column and Thoracic Spinecells after Postponement of Mastoectomy //International Journal of Innovative Analyses and Emerging Technology. – 2021. – Т. 1. – №. 4. – С. 109-113.
7. Ilkhomovna K. D. Modern Look of Facial Skin Cancer //БарқарорликваЕтакчиТадқиқотларонлайнилмийжурнали. – 2021. – Т. 1. – №. 1. – С. 85-89.
8. Ilkhomovna K. D. Morphological Features of Tumor in Different Treatment Options for Patients with Locally Advanced Breast Cancer //International Journal of Innovative Analyses and Emerging Technology. – 2021. – Т. 1. – №. 2. – С. 4-5.
9. Khodjayeva D. I. MORPHOLOGY OF IDIOPATHIC SCOLIOSIS BASED ON SEGMENT BY SEGMENT ASSESSMENT OF SPINAL COLUMN DEFORMITY //Scientific progress. – 2022. – Т. 3. – №. 1. – С. 208-215.
10. Ходжаева Д. И. СОВРЕМЕННЫЕ ВОЗМОЖНОСТИ УЛЬТРАЗВУКОВОЙ ДИАГНОСТИКИ ПРИ РАКЕ КОЖИ ЛИЦА //Жизнеобеспечение при критических состояниях. – 2019. – С. 111-112.
11. Aslonov S. G. et al. Modern Approaches to Oropharyngeal Cancer Therapy //International Journal of Discoveries and Innovations in Applied Sciences. – 2021. – Т. 1. – №. 3. – С. 38-39
12. Khodjaeva D. I. MAGNETIC-RESONANCE IMAGING IN THE DIAGNOSIS OF BREAST CANCER AND ITS METASTASIS TO THE SPINAL COLUMN //Scientific progress. – 2021. – Т. 2. – №. 6. – С. 540-547.
13. Ёмгурова О. Р. Клинико-Иммунологического Обследованияу Детей С Дерматитом И Бранхиальной Астмой //БарқарорликваЕтакчиТадқиқотлар онлайн илмийжурнали. – 2021. – Т. 1. – №. 6. – С. 460-468.
14. Achilova, D. N., et al. "Clinical, immunological and medico-social aspects of allergic diseases in children." AnnalsoftheRomanianSocietyforCellBiology (2021): 6736-6740.
15. Achilova, D. N. "SPECIFIC COURSE OF ALLERGIC REACTIONS IN CHILDREN." WebofScientist: InternationalScientificResearchJournal 2.09 (2021): 10-17.

16. Ёмгурова О. Р. Клинико-Иммунологического Обследованияу Детей С Дерматитом И Бранхиальной Астмой //БарқарорликваЕтакчиТадқиқотлар онлайн илмийжурнали. – 2021. – Т. 1. – №. 6. – С. 460-468.
17. Bakhadurovna H. D., Akmalovna I. G. THE ROLE OF MULTIGENIC THROMBOPHILIA IN WOMEN WITH UNFAVORABLE OUTCOMES AFTER EXTRACORPOREAL FERTILIZATION //ResearchJet Journal of Analysis and Inventions. – 2022. – Т. 3. – №. 1. – С. 44-50.
18. Shamsutdinov A. S., Abdullaeva U. K., Akhmedova N. S. Determination of the level of pepsinogens in patients with chronic h. pylori associated gastritis //ACADEMICIA: An international multidisciplinary research journal. – 2021. – Т. 11. – №. 2. – С. 919-924.
19. ШамсутдиновА. С., СаидоваД. И., РахматоваН. Н. Влияниейододефицитныхсостоянийженщиннабеременностьиразвитиедетей //CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES. – 2021. – С. 349-352.
20. Ramazonovna M. Z. Functional State of the Liver and Pancreas in Covid-19 //EUROPEAN JOURNAL OF INNOVATION IN NONFORMAL EDUCATION. – 2022. – Т. 2. – №. 2. – С. 333-338.
21. Ramazonovna M. Z. ETIOPATHOGENETIC ASPECTS OF LIVER DAMAGE IN PATIENTS WITH COVID-19 //EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE. – 2022. – Т. 2. – №. 2. – С. 23-2
22. Nutfilloevich K. O. ALCOHOL ABUSE AMONG GASTROENTEROLOGICAL PATIENTS PROFILE INFORMATION //Ижтимоий Фанларда Инновацияонлайнилмийжурнали. – 2022. – Т. 2. – №. 1. – С. 94-100.
23. Мухаммедова З. Р., Болтаев М. М. «TINCTURAMORUS»-КЛАДЕЗЬ ВИТАМИНОВ И МИНЕРАЛЬНЫХ ВЕЩЕСТВ АКТУАЛЬНАЯ В ПЕРИОД ПАНДЕМИИ COVID-19 //Новый день в медицине. – 2020. – №. 4. – С. 726-730.
24. Navruzov R. R. Characteristics of morphometric parameters of the white rat's stomach in the early postnatal period //New day in medicine. – 2021. – Т. 2. – №. 34/3.
25. Харибова Е. А., Тешаев Ш. Ж. Изменения состава просветной микрофлоры в разные периоды постнатального развития //Морфология. – 2020. – Т. 157. – №. 2-3. – С. 224-225.
26. Akramovna S. M. INFLUENCE OF ENERGY DRINKS ON SOME BIOCHEMICAL PARAMETERS OF BLOOD //EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE. – 2022. – Т. 2. – №. 2. – С. 85-88.
27. Ядгарова Ш. С. Антропометрические Показатели Детей Города И Сельской Местности //CENTRALASIANJOURNALOFMEDICALANDNATURALSCIENCES. – 2021. – С. 319-322.
28. Ядгарова Ш. С., Саитов Ш. О., Набиева С. С. ТРЕБОВАНИЯ К ПИТАНИЮ И ПРИМЕНЕНИЕ БИОЛОГИЧЕСКИ АКТИВНЫХ ДОБАВОК ПРИ COVID-19 //Новый день в медицине. – 2020. – №. 4. – С. 715-717.
29. Salixovna Y. S. HYGIENIC ASSESSMENT OF THE HEALTH STATE AND PHYSICAL DEVELOPMENT OF PRESCHOOL CHILDREN UNDER COMBINED EXPOSURE TO CHEMICAL FACTORS OF THE ENVIRONMENT //Emergent: Journal of Educational Discoveries and Lifelong Learning (EJEDL). – 2022. – Т. 3. – №. 1. – С. 139-144.

30. Bakhodirovna K. D. Thrombophlebia and Pregnancy, Predicting Perinatal Complications and Optimizing Administration Tactics //International Journal of Culture and Modernity. – 2022. – Т. 13. – С. 130-137.
31. Midkhatovna S. E. PRECLINICAL ATHEROSCLEROSIS IN YOUNG MEN WITH METABOLIC SYNDROME AND THE POSSIBILITY OF ITS PRIMARY PREVENTION //EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE. – 2022. – Т. 2. – №. 2. – С. 30-34.
32. МелибоеваШ. Ш., БолтаевМ. М., ШариповаЭ. М. Выращивание «Brassica Oleracea» НаТерриторииРеспубликиУзбекистан //CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES. – 2021. – С. 120-123.
33. МелибоеваШ. Ш., БолтаевМ. М., ШариповаЭ. М. Сравнительная Эффективность Препарата «Нодинорм» ПриКомплексном ЛеченииФиброзно-Кистозной Мастопатии //CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES. – 2021. – С. 114-119.
34. Meliboyeva S. S. Q. et al. Comparative efficiency of the preparation" Nodinorm" in complex treatment of fibrocystic mastopathy //ACADEMICIA: An International Multidisciplinary Research Journal. – 2021. – Т. 11. – №. 10. – С. 1591-1596.