EUROPEAN JOURNAL OF LIFE SAFETY AND STABILITY (EJLSS)
ISSN 2660-9630
www.ejlss.indexedresearch.org Volume 13, 2022 ||

Current Opinions on Etiopathogenesis, Clinical Picture, Diagnosis and Treatment of Irritable Bowel Syndrome

Rasulova Saodat Halimovna
Bukhara State Medical Institute, Bukhara, Republic of Uzbekistan

Abstract: *Irritable bowel syndrome is a serious and underappreciated problem in childhood. This topic is not so well studied in pediatrics compared to adult practice, and pediatricians often make this diagnosis to young children without proper justification. The lecture analyzes current opinions on the etiopathogenesis, clinical picture, diagnosis and treatment of irritable bowel syndrome in children. The emphasis is placed on a set of diagnostic criteria that allow us to assume and then confirm the diagnosis. Keywords: functional bowel disorders, irritable bowel syndrome, children, biopsychosocial model, dioctahedralsmectite, polyethylene glycol.*

Keywords: *irritated,functional bowel disorders, irritable bowel syndrome, children, biopsychosocial model, dioctahedralsmectitis.*

Date of Submission: 04-12-2021 ***Date of Acceptance: 11-01-2022***

Functional disorders occupy a leading position in the structure of diseases of the digestive system in children of the first year of life (according to various sources, 90-95%). Functional diseases (or disorders) are usually considered situations when the examination fails to detect anatomical, morphological, metabolic or other disorders that could explain the child's symptoms. According to the classic definition of D. A. Drossman (1994), functional disorders of the gastrointestinal tract are a diverse combination of gastrointestinal symptoms without structural and biochemical disorders. Some authors consider this definition somewhat outdated, since with the development of medical science, new research methods appear that allow us to identify changes in organs and systems at a more subtle level. While acknowledging this point of view, we would like to suggest that we focus on this definition, at least until the time when genetic and molecular research is firmly established in everyday clinical practice. The causes of functional disorders are disorders of organ regulation caused by "extra-organ" (psychoemotional, stressful, endocrine, etc.) factors [1, 2].

In Rome III criteria proposed by the Committee on the study of functional disorders in children and the International working group on the development of criteria for functional disorders in 2006, functional bowel disorders are divided into two groups depending on age [2, 3]. G. Functional disorders in infants and young children (age 0-3 years): G4. Infant colic;H2b. Irritable bowel syndrome (IBS); H3a. Functional constipation. As can be seen from the data presented, the diagnosis of IBS is not valid in children under the age of 4 years. Irritable bowel syndrome is a functional bowel disorder in which pain or discomfort in the abdomen is associated with bowel movements, changes in the frequency and nature of stool, or other signs of impaired bowel movement [3]. Synonyms: spastic colitis, colon neurosis, spastic constipation, spastic colon, mucosal colic, nervous diarrhea, functional colopathy, etc.

Epidemiology The prevalence of IBS in adults ranges from 9 to 48% (on average, 20% of the general population), depending on geographical location, socio-economic conditions, dietary patterns, etc. The frequency of detection of IBS in children visiting a pediatrician is 0.2% according to primary outpatient care and 22-45% among hospitalized children - according to specialized inpatient departments in Western Europe. According to other data, the prevalence of IBS among children and adolescents presenting gastrointestinal complaints ranges from 6 to 14% and 22-35. 5%, respectively [2, 4, 5].

Classification of irritable bowel syndrome (F. Weber, R. McCallum, 1992): IBSoccurring with a predominance of diarrhea; IBSoccurring with a predominance of constipation; IBS occurringmainly with в abdominal pain and flatulence.

The foundation of biopsychosocial disorder consists of two main pathological mechanisms-psychosocial impact and sensory-motor dysfunction of the intestine, i.e. violations of visceral sensitivity and motor activity of the intestine [3, 6, 7].The biopsychosocial model of the disease is based on the complex interaction of genetic, environmental, physiological and psychological factors and their influence on symptoms and disease. This is a cornerstone for understanding the etiology of IBS [8]. Genetic factors in the development of the syndrome are identified by the presence of its symptoms, as well as by the diagnosis of clusters within families and twins. In particular, it is known that children who have a mother with IBS also develop this syndrome [9, 10,20]. The specific genes responsible for predisposition to the disease are not known, but the genes encoding the production of serotonin, proteins involved in noradrenergic signaling, and cytokines are being studied [11,22].

The etiopathogenesis of the Pathogenesis of irritable bowel syndrome is not entirely clear, but according to the dominant today the concept, its main components include violations of interaction in the system "brain-gut": the violation of the nervousregulation y (cortical and podcar Cowie centers of the limbic system, the hypothalamus, the segmental level); impaired humoralregulation y (gastrointestinalnye hormones, vasoactive intestinal peptide, motilin, cholecystokinin, biologically active substances — histamine, serotonin, endocrine pathology);violation vosacceptance and transformation peripheryrichescape afferent flow of impulses in the cerebral cortex; visceral hypersensitivity (hyperalgesia, allodynia). Irritable bowel syndrome- "comes from early childhood". Such a thesis does not look strange if we study more deeply the features of the child's development from the moment of birth. In particular, stress at a young age is believed to lead to the development of hypersensitivity or a change in the response to pathological influences in later life [8, 12,24]. The risk of developing the syndrome also increases with traumatic experiences at an early age, for example, due to lack of care or the loss of one of the parents. The minimum level of stress or pain that can lead to long-term health problems is not defined. In addition, it is unclear what makes some children more vulnerable to the disease, and at what age children are most exposed to adverse effects [8, 13]. For example, children who received a nasogastric tube during the newborn period for various reasons are significantly more likely to suffer from abdominal pain in adolescence compared to their siblings [14,39]. The association of irritable bowel syndrome with concomitant psychiatric disorders has been well studied in children. There is an increase in the prevalence of IBS in adolescence. There are no gender differences in children, but female individuals predominate among adolescents, which is similar to the epidemiology of anxiety and depressive symptoms and disorders [15,26]. There is evidence that patients with IBS are more likely to be diagnosed with anxiety and depressive disorders in the future [16,40]. However, the exact relationship between psychiatric characteristics, psychiatric complaints and IBS remains unclear. On the one hand, there is evidence that anxiety and depressive disorders anticipate gastrointestinal complaints. Perhaps, in these individuals, psychological characteristics predispose to increased attention to complaints from the gastrointestinal tract and trigger the pain mechanism. There is a point of view that psychological

disorders and irritable bowel syndrome may have common risk factors or that they are different manifestations of a special causal process [8, 16]. Environmental factors are known to influence microbiocenosis the intestines. Children who have had acute bacterial gastroenteritis are more likely to develop IBS compared to the control group [17, 18]. Similar data were obtained in another study; female gender was also noted as an additional predictor of inflammation [17, 19,41]. Among adult patients, the probability of developing IBS is higher in those who have had a bacterial infection than a viral one [20,25]. There are microbiological differences in the composition of the intestinal microflora in patients with irritable bowel syndrome and in healthy individuals. Epidemiological, physiological, and clinical data available in the literature indicate a significant role of intestinal bacteria in the pathogenesis of the disease [8, 21]. Some probiotic strains are known to reduce the risk of persistent symptoms of the syndrome (in particular, Lactobacillus reuteri and GG). Data on the use of probiotics in children with IBS are limited, but also indicate a positive effect. However, there is a need to use different probiotics for specific conditions, symptoms, and patients [21,23,].Mucosal inflammation, dysregulation of intestinal immunity, microbiocenosis, and intestinal mucosal permeability play an important role in the pathogenesis of irritable bowel syndrome [6.16]. According to some data, children with IBS have a higher level of fecal calprotectin compared to the control group [24]. Individuals with this pathology have a syndrome of excessive bacterial growth. The cause of this condition is microbial intervention from the colon to the small intestine. As a result of bacterial overgrowth syndrome, excessive gas formation occurs, changes in intestinal motility and sensitivity of the intestinal mucosa, as well as activation of the intestinal immune system [25,35,41]. One of the triggers for the development of IBS can be a food allergy. Studies conducted among adult patients have shown that when mast cells located in the immediate vicinity of nerve endings in the intestinal wall are activated, visceral perception changes, which provokes abdominal pain syndrome [26, 27,30]. In addition, the use of mast cell stabilizers (ketotifen) reduces visceral sensitivity and leads to an increase in abdominal pain in adult patients with IBS [28,40,41]. A certain role in the genesis of the syndrome is assigned to visceral hypersensitivity or hyperalgesia. However, this statement in relation to children was proved only at the experimental level [29, 30]. The symptoms of IBS may have more to do with pathological amplification of physiological stimuli, rather than with true sensorineural hypersensitivity [31]. Motor disorders were among the first proposed mechanisms to explain functional bowel disorders. However, pathogmonical No violations were detected for IBS [32]. Many of the motor disorders described in patients with IBS are found at a lower rate in healthy individuals. Violation of motility, as a rule, leads to secondary changes in the internal environment of the intestine, changes in the composition of microflora, disruption of the processes of digestion and absorption. The latter inevitably increases the imbalance of the intestinal microflora, aggravates the violation of motor skills (which provokes pain), thereby closing the vicious circle. According to the Rome III criteria, diagnostic criteria for IBS in children include: I. Abdominal discomfort for at least 2 months (unpleasant sensation not described as pain) or pain associated with two or more of the following symptoms for at least 25% of the time: a relief after defecation; getting connected with a change in stool frequency; the beginning is due to the changing nature of the chair (estka on the Bristol stool scale— 1, 2, 5, 6, 7 types). II. There are no signs of inflammation, anatomical, metabolic or neoplastic changes that could explain the existing symptoms. Symptoms confirming the diagnosis of IBS, and about will toset: abnormal stool frequency: 4 or more times per day and 2 or less times per week; pathological forme Kala: lumps/solid or liquid/watery; pathological passage the stool excessive straining, tenesmus, the imperative urgency, feeling of incomplete evacuation; excessslizeotdelenie; wsdote of the abdomen and bloating.

Features of clinical manifestations of irritable bowel syndrome: abdominal pain: variability intenseSTI, the lack of a permanent location, recurrent nature, the combination with flatulence and flatulenciesa decrease of intensity after defecation and flatus; flatulence is not expressed in the

morning, increases during the day, mainly in the lower abdomen, irregular, is associated with the error in the diet; the alternation of diarrhea and constipation with the useof owning one of the symptoms, especially diarrhea — no politicaliy, Yid Kyi chair 2-4 times only in the morning, after Breakfast, on the background of a traumatic situation, the imperative urgency, feeling of incomplete emptying.

Additional diagnostic criteria of irritable bowel syndrome include: polymorphism Ms.forehead: a variety of autonomic and neurological disorders, extraintestinal manifestations, signs of functional disorders of other organs; a high number of visits to physicians of different SPecialthevalues, the discrepancy mewaiting for the duration of the disease, a variety of complaints and satisfactory appearance and physical development of the patient; no progression of symptoms; the absence of the clinicalmanifestationsing at night; the relationship with the traumatic situation. The above diagnostic criteria are of great clinical significance and allow, at the very least, to suspect IBS in a child. The appearance of the patient's so-called anxiety symptoms ("red flags","red flags") make the doctor assume the organic (inflammatory, infectious, etc.), but not the functional nature of the disease. Knowledge of these symptoms is mandatory for a pediatrician of any profile.

Symptoms of anxiety ("red flags"): the stereotype of pain, radiation of pain, the constant pain in the upper or lower kVA durante the belly; persistent vomiting; preservethe Wake of symptoms at night; blood inTula, vomiting blood, melena; dysphagia; violations of physicaldevelopment, growth retardation; itmotivirovana loss of body weight , the DSD developedia; fever of unknown origin; joint pain, arthritis; perianal lesions; lymphadenopathy;persistent diarrhea, nocturnal diarrhea, polifenole;constant an increase in the abdomen; hepato-/splenomegalyLeah;any changes in clinical and/or biochimicaish blood; burdened by itofkoptologie intestine, vespoli-tive bowel diseases, celiac disease, peptic ulcer disease heredity.

Complex surveys with suspected irritable bowel syndrome include the following methods: endoscopic: sigmoidoscopy, fibrositydoscopy,fibrocolonoscopy, ultrasound of the abdominal organsof the cavity, kidneys, organs of littleotasa or computer imaging; laboratory: Generals blood test, biochemical blood test, General urine analysis; research Cala: man icroscope, Parasitology research, occult blood, of elastase, microbiological testing, carbohydrates, etc.; hydrogen test for exclusion of hypolactasia and malabsorption of fructose, with the exception of celiac disease (CEPlogicheskie markers, genetic testing and research biopsy of the mucosa of the duodenum).Irritable bowel syndrome is a diagnosis of exclusion that can be made only after the organic nature of the disease is reliably rejected ("hospital diagnosis"). IBS cannot be diagnosed in young children.

Treatmentnon-drug correction It is necessary to calm the child and his parents, explain the features of the disease and possible causes of its formation. A set of measures of non-pharmacological correction of the signs of IBS in children were as follows: elimination of possiblex causes intestinal symptoms; modification treatmentfor the patient's life (the regime of the day, eating behavior, physical activity, dietary preferences); normalization of the psychoemotional state (elimination of stressful situations, limiting school and extracurricular loads of different options psychotherapeutic correction, creation of comfortable conditions for defecation and etc.); dietary correction;ffisioterapia, physiotherapy, massage with Seda-tive or stimulating effect (depending on the type of motor disorders); fitterapija with sedative effect.The diet of a child with irritable bowel syndrome should be structured in accordance with the following requirements: personifizierungtraveler diet in accordance with foodth stereotype of the child; the exception indievizualno unbearable produks, carbonated beverages, beans, citrus fruits, chocolate, vegetables, rich in essential oils; limitation apotreof Blane milk products GRUfight in fiber and foods that cause flatulence.

Medical correction: Correction motor skills: drugs with mainly antispasmodic effect: topical Kishejnye modulators selective blockers of sodium channels in smooth muscles of the intestine: mebeverine, Pikavere bromide; myotropicSPajmalicine: drotaverine, PapavaRin, including rectal suppositories; preparations with xholinoliticheskoy action: giosinabutylbromide, alverin + semicolon, the preparations of belladonna, including rectal suppositories; regulator motorite of bowel — trimebutine.It should be noted that among the listed medicines, officially in pediatrics, in addition to drotaverine, papaverine and belladonna preparations, hyoscine butyl bromide (from the age of 6 years) and trimebutine (from the age of 3 years) are allowed. Elimination of flatulence: simethiconepreparations, enterosorbents (dioctahedralsmectite), as well as combined preparations (alverin + семитsemitrione, pancreatin + dimethicone). Step-by-step correction микробиоценозаof intestinal microbiocenosis disorders: intestinal "antiseptics" (nifuroxazide, furazolidone, etc.), enterosorbents (смектитdioctahedralsmectite, etc.), laxatives, pre - and probiotics. Among enterosorbents in pediatric practice, it is most often usedSmekta is an adsorbent of natural origin. ActivesubstanceSmectiteis a dioctahedralsmectite (3 g).

Literature

1. Tursunova D. E. FEATURES OF THE SORPTION METHOD APPLICATION IN THE CORRECTION OF DYSLIPIDEMIA AND HYPERGLYCEMIA IN DIABETES MELLITUS //ИжтимоийФанлардаИнновацияонлайнилмийжурнали. – 2021. – Т. 1. – №. 4. – С. 66-70.
2. Erkinovna T. D. Modern understanding of the occurrence of cognitive impairments in arterial hypertension and their correction //Asian journal of pharmaceutical and biological research. – 2021. – Т. 10. – №. 3.
3. Ixtiyarovna A. G., Iskandarovna J. K. Features of the course of arterial hypertension associated with metabolic syndrome //ACADEMICIA: An International Multidisciplinary Research Journal. – 2021. – Т. 11. – №. 9. – С. 138-146.
4. Axmedova S. M., Raxmatova D. B. Analysis of the distribution of podagric nephropathy (comment) //ACADEMICIA: AN INTERNATIONAL MULTIDISCIPLINARY RESEARCH JOURNAL. – 2021. – Т. 11. – №. 1. – С. 1668-1671.
5. Bakhodirovna M. N. Depressive disorders in patients after myocardial infarction //European science review. – 2016. – №. 9-10.
6. Muxamadiyeva N. B. Features of formation and clinics depressive disorders in patients after myocardial infarction //European science review. – 2016. – №. 3-4. – С. 181-182.
7. Muxamadieva N. B. Vliianietecheniiainfarktamiokardanarazvitiedepressivnykhrasstroystv [Influence of myocardial infarction on the development of depressive disorders] //Molodoyuchenyy. – 2015. – Т. 11. – С. 681-3.
8. Mukhamadieva N. B., Tuksanova Z. I. Influence of the course of myocardial infarction on the development of depressive disorders." //Young Scientist" scientific journal. – 2015. – Т. 11. – №. 91. – С. 681-682.
9. Akhtamovna K. N. Fibrotic Complications in the Lungs in Patients Who Have Had COVID-19 Pathogenesis of COVID-19 //European Journal of Life Safety and Stability (2660-9630). – 2021. – Т. 9. – С. 14-24.
10. Zokirov V. Z., Manasova I. S. Analysis of working conditions by parameters of the physiological state of workers cotton plant //ACADEMICIA: An International Multidisciplinary Research Journal. – 2020. – Т. 10. – №. 11. – С. 1297-1301.

11. Akhmatovna J. Z. Current Issues of Infertility Diagnosis and Treatment in Women with Internal Genital Endometriosis //БошқаруввaЭтикаҚоидаларионлайнилмийжурнали. – 2021. – Т. 1. – №. 6. – С. 77-84.
12. Hayatovich K. M. Changes in corneal thickness in patients with different stages of primary open-angle glaucoma //ACADEMICIA: An International Multidisciplinary Research Journal. – 2021. – Т. 11. – №. 5. – С. 216-221.
13. Kuchkarov U. I., ZSh A., ShKh S. Efficiency of noophen in heroin addiction //Likars' kasprava. – 2009. – №. 7-8. – С. 69-73.
14. Kuchkorov U. I., Nazarov A. I. DISORDERS OF THE AUTISM SPECTRUM IN CHILDREN A NEW APPROACH TO THE PROBLEM //Academicia Globe: Inderscience Research. – 2021. – Т. 2. – №. 05. – С. 306-311.
15. Rustamov U. T. Specific Features of Psychoemotional Disorders in Functional Disorders of Gastrointestinal Activity //CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES. – 2021. – С. 308-310.
16. Achilova D. N. et al. Clinical, Immunological and Medico-Social Aspects of Allergic Diseases in Children //Annals of the Romanian Society for Cell Biology. – 2021. – С. 6736-6740.
17. Rizayeva M. A., Yahyoyeva H. S. A common symptom of anemia in diabetic nephropathy //ACADEMICIA: AN INTERNATIONAL MULTIDISCIPLINARY RESEARCH JOURNAL. – 2021. – Т. 11. – №. 1. – С. 1683-1686.
18. Ahmadovna R. M., Sharipovna Y. H. DisordersofCarbohydrateMetabolisminOverweightandObesity //ИжтимоийФанларда Инновация онлайн илмийжурнали. – 2021. – Т. 1. – №. 5. – С. 90-96.
19. Эргашева Ю. Ю. Особенности влияния подростковой психической травмы на течение опийной наркомании, осложненной алкоголизмом //Международный журнал прикладных и фундаментальных исследований. – 2015. – №. 8-1. – С. 181-184.
20. Ergasheva Y. Y. Clinical features of suicidal tendencies in disabled people with bronchial asthma //European Journal of Molecular & Clinical Medicine. – 2020. – Т. 7. – №. 11. – С. 2020.
21. Кудратова Д. Ш. Метаболик синдром асосийкомпонентлари-нингтаркалиши //Биология и интегративная медицина. – 2016. – Т. 2. – С. 62.
22. Кудратова Д. Ш., Ихтиярова Г. А. Современный взгляд на диагностику врожденных пороков развития плода //Вестник Ташкентской медицинской академии. – 2020. – №. 2. – С. 147-153.
23. Achilova D. N. SPECIFIC COURSE OF ALLERGIC REACTIONS IN CHILDREN //Web of Scientist: International Scientific Research Journal. – 2021. – Т. 2. – №. 09. – С. 10-17.
24. 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.
25. Ilkhomovna K. D. Modern Look of Facial Skin Cancer //БарқарорликваЕтакчиТадқиқотларонлайнилмийжурнали. – 2021. – Т. 1. – №. 1. – С. 85-89.

26. Mamedov U. S., Khodjaeva D. I. Modern Diagnostic Approachкetreatment of Thyroid Cancer //International Journal of Development and Public Policy. – 2021. – Т. 1. – №. 4. – С. 101-105.
27. 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.
28. Ходжаева Д. И. СОВРЕМЕННЫЕ ВОЗМОЖНОСТИ УЛЬТРАЗВУКОВОЙ ДИАГНОСТИКИ ПРИ РАКЕ КОЖИ ЛИЦА //Жизнеобеспечение при критических состояниях. – 2019. – С. 111-112.
29. 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.
30. 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.
31. Karimovna T. N. The Main Factors of Exacerbation of Chronic Glomerulonephritis in Children //CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES. – 2021. – С. 357-361.
32. Karimovna T. N. PROGNOSTIC CRITERIA FOR CYTOMEGALOVIRUS ASSOCIATED GLOMERULONEPHRITIS IN CHILDREN. – 2020.
33. 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.
34. Ilkhomovna K. D. Modern Look of Facial Skin Cancer //БарқарорликваЕтакчиТадқиқотларонлайнилмийжурнали. – 2021. – Т. 1. – №. 1. – С. 85-89.
35. Mamedov U. S., Khodjaeva D. I. Modern Diagnostic Approachкetreatment of Thyroid Cancer //International Journal of Development and Public Policy. – 2021. – Т. 1. – №. 4. – С. 101-105.
36. 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.
37. Ходжаева Д. И. СОВРЕМЕННЫЕ ВОЗМОЖНОСТИ УЛЬТРАЗВУКОВОЙ ДИАГНОСТИКИ ПРИ РАКЕ КОЖИ ЛИЦА //Жизнеобеспечение при критических состояниях. – 2019. – С. 111-112.
38. 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.
39. 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.
40. SOKHIBOVA Z. R., AKHMEDOVA N. S., BOLTAEV K. J. SOME FEATURES OF LABORATORY INDICATORS OF MICRO AND MACRO-ELEMENTARY STATUS OF

THE ORGANISM OF FEMALE AGE WOMEN IN NORMALITY AND IN IRON DEFICIENCY //БИОМЕДИЦИНАВААМАЛИЁТЖУРНАЛИ. – С. 238.

41. Rakhmonovna S. Z., Sharipovna A. N. Characteristics of exchange of essential microelements of copper and zinc in healthy fertilized women and women with combined copper and zinc deficiency state //European Journal of Molecular & Clinical Medicine. – 2020. – Т. 7. – №. 1. – С. 3332-3335.