



CLINIC, DIAGNOSTICS AND TREATMENT OF DUODENAL ULCER IN CHILDREN

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ABSTRACT

The following factors play a role in the development of duodenal ulcer in children: neuropsychic, endocrine, hereditary and constitutional factors, drug and toxic effects, food allergies, malnutrition and the infectious agent Helicobacter pylori is of paramount importance in the formation of ulcers. Often the disease occurs with frequent prolonged exacerbations and in a more severe form, which contributes to the development of complications. Peptic ulcer of the duodenum in adolescents has its own age characteristics and determines the need for a differentiated approach to the treatment of patients with the obligatory consideration of the infectious factor. When establishing Hp-associated peptic ulcer in adolescent children, it is necessary to carry out eradication therapy based on modern principles recommended in pediatrics as part of the complex treatment of such patients. Conducting an active medical examination and rehabilitation of children with this pathology will reduce the likelihood of relapses and complications of duodenal ulcer.

In recent years, duodenal ulcer in children and adolescents (DU) has attracted special attention, since it has a high prevalence, a vivid clinical picture, an asymptomatic course with a high probability of developing serious complications (purulent bleeding, perforation, perforation) [1,4,7].

A duodenal ulcer is a disease that affects the mucous membrane with further scar formation. The frequency of occurrence of inflammatory processes is not directly related to the sex or age of the child. Statistics show that boys and girls are equally affected by peptic ulcer, although people who regularly violate the basic rules of nutrition are at particular risk. This disease proceeds slowly, so the stages of exacerbation may alternate with periods of remission. In moments of remission, children feel much better, but then deceptive calmness can suddenly be replaced by severe pain.



During an exacerbation of duodenal ulcer in children, severe pain was noted on the right side just above the navel. Most often, such pains were especially pronounced on an empty stomach. After eating, the pain subsided, which was associated with an increase in the concentration of hydrochloric acid in the stomach. Very often, patients complained of unpleasant heartburn, as well as moderate and dull pain, which usually appears 2-3 hours after eating.

Prevalence of the inflammatory disease in twelve-year-old men is 8 times higher than in children at the age of 10 years [2,5,8,12]. As is known, the following play an important role in the development of duodenal ulcer disease in children: nutritional disorders, hereditary and constitutional factors, neuro-psychological, endocrine, medicinal and toxic effects, food allergies, and the infectious agent *Helicobacter pylori*. (Np).

The frequency of *Helicobacter pylori* infection in children of all age groups is 65-70% [9]. Currently, Hp is found in 52-55% of children with chronic gastritis and gastroduodenitis, and in erosive and ulcerative processes, their number increases to 82-98% [3,6,10,11]. At the same time, the data of recent studies confirm the changed conditions, there is an increase in atrophic, neoplastic processes of the stomach and duodenum associated with *Helicobacter pylori* and a decrease in the growth of Hp associated duodenal ulcers.

In the structure of peptic ulcer, duodenal ulcer prevails, which is – 81-87%, gastric ulcer is much less common - 11-13%, as well as the combined localization of ulcerative defects in the stomach and duodenum 4-6% [9].

The peak incidence in girls is 10-12 years old, in boys it is 12-14 years old, boys and girls get sick equally often. A distinctive feature of peptic ulcer is the cyclical nature of its course, with exacerbations in spring and autumn.

Exacerbation of DU can last from weeks to several months, the remission phase is always much longer than the period of exacerbation. In some children, the disease occurs with frequent prolonged exacerbations and in a more severe form, which contributes to the development of complications.

In recent years, there has been a tendency for adolescents to have an asymptomatic course of the disease, and in connection with this, cases of hospitalization of children with complications such as bleeding, perforation, and pyloric stenosis without any clinical manifestations have become more frequent. Also, a feature of the disease in adolescents is the localization of the ulcer in its upper part (95%) up to 1 cm in size, occasionally there are large ulcers from 3 to 6 cm.

Of great importance in the diagnosis of duodenal ulcer in children is the totality of clinical examination data, the results of instrumental, morphological and laboratory research methods. Of primary importance is endoscopic examination, which allows you to clarify the localization of the ulcer and determine the stage of the disease.

It is mandatory to determine *Helicobacter pylori* using a breath test with urea, serological methods. The above aspects in childhood dictate the need for individual complex treatment, including exposure to aggression factors in order to reduce them and a parallel effect on defense mechanisms to restore the mucous membrane of the stomach and duodenum.



Patients during intense pain need bed rest, followed by its expansion. The diet should be mechanically, chemically and thermally gentle on the gastric mucosa. Acute foods are excluded from the diet, salt is limited, the consumption of foods rich in cholesterol. Meals are taken 4-5 times a day. Assign with diet No. 1a, No. 1b, No. 1 in the acute phase of the disease. After reducing the severity of the disease, the patient can be transferred to diet No. 5. An analysis of current trends in the problem of Helicobacteriosis made it possible to identify the basic principles of anti-Helicobacter therapy in childhood and to form promising eradication treatment regimens [3,4,8]. The only generally accepted goal of eradicating Helicobacter pylori is to prevent recurrence of ulcers. Antibacterial therapy is indicated for all Helicobacter-associated patients with duodenal ulcer at the first clinical manifestations of the disease [2,4].

The modern approach to treatment involves choosing the most effective combination of drugs that has minimal side effects and is convenient for the patient. Currently, one of the most successful, allowing to destroy the pathogen in 90% of cases, is the so-called three-component therapy, which includes proton pump blockers, amoxicillin, clarithromycin or Macmirror. A two-week course of triple therapy in combination with a six-week intake of colloidal bismuth subcitrate accelerates ulcer healing compared with H₂-blocker monotherapy and reduces the recurrence rate to 15% or less.

After monotherapy with H²-blockers, relapses occur in 60-100% of patients. At the second stage, when it is possible to achieve control over aggressive factors, the main emphasis in treatment is shifted to the activation of defense factors in order to restore its resistance. The duration of this stage is 14–20 days. At the last stage, non-drug interventions are preferable: physiotherapy, psychotherapy and restoration of the functional state of the gastrointestinal tract, aimed at local and general regulatory systems of the child's body. Its duration can be 1-3 months. This approach makes it possible to achieve good results in the treatment of DU and will create the preconditions for achieving a long-term and complete remission.

Thus, peptic ulcer of the duodenum in adolescents has its own age characteristics and determines the need for a differentiated approach to the treatment of patients with the obligatory consideration of the infectious factor. When establishing Hp associated peptic ulcer in adolescent children, it is necessary to carry out eradication therapy based on modern principles recommended in pediatrics as part of the complex treatment of such patients. Conducting an active medical examination and rehabilitation of children with this pathology will reduce the likelihood of relapses and complications of duodenal ulcer.

References:

1. Andreev D.N., Maev I.V., Kucheryavyi Yu.A., Dicheva D.T. Evaluation of the influence of concomitant anamnestic and clinical factors on the effectiveness and safety of anti-Helicobacter therapy. Archives of internal medicine. - 2016. -6(1). -WITH. 29-33.
2. Baranov A.A., Shcherbakov P.L. Topical issues of pediatric gastroenterology /Vopr. modern pediatrician. – 2002. – V. 1, No. 1. – P. 12–17.



3. Grinevich V.B., Uspensky Yu.P., Sablin O.A., Bogdanov I.V. Epidemiology, clinic and treatment of peptic ulcer, not associated with H.Pylori //Exp. and wedge. gastroenterol. – 2002. –#1. –S.127.
4. Isakov V.A., Shcherbakov P.L. Comments on the Maastricht Agreement 2 - 2000 // Pediatrics. - 2002. - No. 2 (Appendix). – P. 5–9.
5. Kildiarova R.R., Zakharova M.G. Features of clinical manifestations peptic ulcer in children at the present stage. Materials of the XIV Congress pediatric gastroenterologists in Russia. "Actual problems in the abdominal pathology in children" / Under the editorship of V.A. Tabolin. - M.: ID Medpraktika – M., 2007.–2002.–№9.–P.79-83.
6. Tsvetkova L.N. Eradication therapy for H.Pylori infection in children // Lech. doctor. - 2001.- No. 10. -WITH. 33–34.
7. Shadrin O.G., Gerasimyuk S.I. Peptic ulcer in children's practice gastroenterologist // Modern gastroenterology. -2009. -4 (48). - S. 76-82.
8. Ibatova Sh.M., Mukhamadiev N.K., Mukhamadieva S.N. Identification of the main reasons and evaluation of application effectiveness of phyto- and vitamin therapy in the complex treatment of endemic goiter. Central Asian journal of medical and natural Sciences Volume: 01 Issue: 01 2020. 2020. P.34-38.
9. Ibatova Sh. M., Mamatkulova F. Kh., Ruzikulov N.Y.The Clinical Picture of Acute Obstructive Bronchitis in Children and the Rationale for Immunomodulatory Therapy. International Journal of Current Research and Review. Vol 12 Issue 17. September 2020. - P.152-155.
10. Ibatova Sh. M., F. Kh. Mamatkulova, N. B. Abdukadirova, Yu. A. Rakhmonov, M. M. Kodirova. Risk Factors for Development of Broncho-Ostructive Syndrome in Children. International Journal of Current Research and Review. Vol 12. Issue 23 December 2020.-P. 3-6.
11. Ibatova Sh.M., Mamatkulova F.Kh., Rakhmonov Y.A., Shukurova D.B., Kodirova M.M. Assessment of the Effectiveness of Treatment of Rachit in Children by Gas-Liquid Chromatography. International Journal of Current Research and Review. Vol 13, Issue 06, 20 March 2021. P.64-66.
12. Sh.M. Ibatova, F.Kh. Mamatkulova, D.S. Islamova. Efficiency of combined application of apricot oil and aevit as a regulator of lipase activity of blood serum in children with vitamin D-deficiency rickets. Journal of Critical Reviews. // ISSN- 2394-5125. VOL 7, ISSUE 11, 2020. P.1266-1274.
13. Ibatova Sh.M., Baratova R.Sh., Mamatkulova F.Kh., Ergashev A.Kh. State of immunity in chronic obstructive pulmonary disease in children. Asian Journal of Multidimensional Research (AJMR). Vol.10, Issue 3, March, 2021. P. 132-136.
14. Ibatova Sh. M., Abdurasulov F.P., Mamutova E.S. Some aspects of diagnostics of out-of-social pneumonia in children indications for hospitalization. EPRA International Journal of Research and Development (IJRD) Volume: 6 | Issue: 4 | April 2021. P. 242-244.
15. Ibatova Sh.M., Mamatkulova F.Kh., Mukhamadiev N.K.State of immunity in chronic obstructive pulmonary disease in children. Central asian journal of medical and natural sciences. Volume: 02 Issue: 05 | Sep-Oct 2021 ISSN: 2660-4159. P. 103-107.