

## FEATURES OF DUODENAL ULCER IN CHILDREN

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### ANNOTATION

The prevalence of duodenal ulcer in adolescent children is 8 times higher than in children under 10 years of age. In the development of this disease in children, the main role is played by: neuropsychic, endocrine, hereditary and constitutional factors, medicinal and toxic effects, food allergies, poor diet and great importance is attached to the infectious agent *Helicobacter pylori*. The disease is often accompanied by frequent, prolonged exacerbations and in a more severe form, which contributes to the development of complications. Carrying out active clinical examination and rehabilitation of children with this pathology reduces the likelihood of relapses and complications of the disease.

**KEY WORDS:** duodenal ulcer, patients, clinic, diagnosis, treatment.

### INTRODUCTION

Currently, the problem of duodenal ulcer (DU) in children attracts special attention, since it is very common, clinical features are both bright and asymptomatic with a high probability of developing serious complications (ulcer bleeding, perforation, perforation) [1,5,7].

The prevalence of duodenal ulcer in adolescent children is 8 times higher than in children under 10 years of age [2,8,10,12]. It is important that diseases of the gastroduodenal zone begin at an early age, often recur, affect the quality of life of children and can lead to early disability.

As is known, an important role in the development of duodenal ulcer in children is played by: poor diet, hereditary and constitutional factors, neuropsychic, endocrine, medicinal and toxic effects, food allergies, and the infectious agent *Helicobacter pylori* is of paramount importance in the formation of ulcers. (Hp).

The frequency of *Helicobacter pylori* infection in children of all age groups is 65-70% [3,4,9,11]. Currently, Hp is detected in 52–55% of children with chronic gastritis and gastroduodenitis, and in erosive and ulcerative processes their number increases to 82–98% [6]. At the same time, recent research data indicate 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.

The structure of peptic ulcer disease is dominated by duodenal ulcer, which accounts for 81-87%, gastric ulcer is much less common - 11-13%, as well as combined localization of ulcerative defects in the stomach and duodenum 4-6% [1,3,9].

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

## CLINICAL PICTURE

In children and adolescents, the development of duodenal ulcer is manifested by the following symptoms:

- Constant feeling of hunger, even after eating
- Attacks of nausea due to hunger
- Frequent belching and heartburn
- Vomit
- Constipation (no bowel movements from several days to several weeks)

The clinical picture of the disease depends on the localization of the process and the clinical and endoscopic stage of the disease.

The leading clinical symptom is pain in the epigastric region and to the right of the midline, closer to the navel. Pain occurs on an empty stomach or 2-3 hours after eating (late pain). Half of the children report night pain. A clear “Moynigam” rhythm of pain is revealed: hunger - pain - eating - relief. Dyspeptic syndrome is pronounced: heartburn (the earliest and most common symptom), belching, nausea, constipation. Superficial palpation of the abdomen is painful, deep palpation is difficult due to the protective tension of the muscles of the anterior abdominal wall.

An exacerbation of DU can last from weeks to several months; the remission phase is always significantly 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, in adolescents there has been a tendency towards an asymptomatic course of the disease and, in connection with this, cases of hospitalization of children with complications such as bleeding, perforation, pyloric stenosis without any clinical manifestations have become more frequent. Also, a feature of the disease in adolescent children is the localization of the ulcerative defect in its upper part (95%) up to 1 cm in size; occasionally large ulcers from 3 to 6 cm are found.

## DIAGNOSTICS

Of great importance in the diagnosis of duodenal ulcer in children is the combination of clinical examination data, the results of instrumental, morphological and laboratory research methods. Of primary importance is endoscopic examination, which makes it possible to clarify the location of the ulcer and determine the stage of the disease.

Determination of *Helicobacter pylori* using a urea breath test and serological methods is mandatory. The above aspects in childhood dictate the need for individual

complex treatment, including influence on aggression factors in order to reduce them and parallel influence on defense mechanisms to restore the mucous membrane of the stomach and duodenum.

## TREATMENT

During intense pain, patients require bed rest followed by its extension. The diet should be mechanically, chemically and thermally gentle on the gastric mucosa. Spicy foods are excluded from the diet, table salt and consumption of cholesterol-rich foods are limited. Meals are taken 4-5 times a day.

Prescribed with diet No. 1a, No. 1b, No. 1 in the acute phase of the disease. After the severity of the disease has decreased, the patient can be transferred to diet No. 5. 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 formulate promising eradication treatment regimens [3,4,8]. The only generally accepted purpose 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, which 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 Macmiror.

A two-week course of three-component therapy in combination with a six-week intake of colloidal bismuth subcitrate accelerates ulcer healing compared to H<sub>2</sub>-blocker monotherapy and reduces the relapse rate to 15% or lower. After monotherapy with H<sub>2</sub>-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 shifts to activating protective 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 prerequisites for achieving long-term and complete remission.

## CONCLUSIONS

Thus, duodenal ulcer in adolescent children has its own age-related characteristics and determines the need for a differentiated approach to the treatment of patients with mandatory consideration of the infectious factor. When *Hp*-associated peptic ulcer

disease is established 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. Carrying out active medical examination and rehabilitation of children with this pathology will reduce the likelihood of relapses and complications of duodenal ulcer.

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