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## **FEATURES OF THE COURSE OF GASTROESOPHAGIAL DISEASE IN ADOLESCENTS**

**Relevance.** Interest in the problem of gastroesophageal reflux disease (GERD) is due to its high prevalence. On average, 40–45% of residents of industrialized countries note the leading symptom of GERD - recurrent heartburn. In modern literature, much attention is paid to the problem of GERD in adults, while in children and adolescents it remains insufficiently studied, and the available data are contradictory.

**Purpose of the study is** to study the prevalence of GERD in adolescents with diseases of the gastrointestinal tract (GIT) and determine the clinical effectiveness of treatment according to the data of the Tashkent city center for the rehabilitation of adolescents (SRCP).

**Materials and methods.** The study was based on the data of a survey of 225 adolescents with GERD who were treated at the SCR in the period from January 2011 to January 2014. Of these, 135 adolescents received repeated treatment 2 to 4 times during the study period.

All patients underwent conventional clinical, laboratory and instrumental (EFGDS, ultrasound, intraesophageal rheography and pH metry) research methods. Verification and assessment of the severity of GERD was carried out in accordance with the Los Angeles classification, according to which the following forms are distinguished: endoscopically negative; endoscopically positive (4 degrees of reflux esophagitis).

**Research results.** Over the past 3 years, 4200 adolescents with gastrointestinal diseases have been treated in the gastroenterology department of the State Central

District Hospital. Of these, GERD was first detected in 225 patients, which amounted to 5.4%. The average age of the surveyed was  $16.2 \pm 0.7$  years. Moreover, the predominance of the male over the female was noted (2: 1).

All patients had a typical GERD symptom complex - heartburn, belching, regurgitation, painful and difficult passage of food, which significantly worsened their quality of life.

Heartburn is the most common symptom, which occurred in 83.1% of adolescents, and was caused by prolonged contact of acidic ( $\text{pH} < 4$ ) gastric contents with the esophageal mucosa. Typical for them was an increase in heartburn with errors in diet, drinking carbonated drinks, physical exertion, bending forward and in a horizontal position. The intensity and frequency of heartburn (both daytime and nighttime) was directly proportional to the body mass index. Thus, in 35% of the examined adolescents with GERD, the excess body weight was  $10.5 \pm 0.5$  kg ( $r = + 0.789$ ). Belching, as one of the leading symptoms of GERD, was quite common (73.6% - belching with air, 40.7% - sour belching). Belching, as a rule, intensified after eating, taking carbonated drinks.

Dysphagia and odonophagy were observed in 19% of adolescents with GERD, regardless of gender. A characteristic feature of these symptoms was their intermittent nature. In 20.1% of adolescents with GERD, pain behind the sternum and in the epigastric region in the projection of the xiphoid process was observed, arising shortly after eating and aggravated by bending. 12.5% of adolescents complained of a lump in the throat when swallowing, pain in the lower jaw, and burning of the tongue.

According to the findings of EFGDS, 25 adolescents (12.5%) were diagnosed with an endoscopically negative form of GERD. In other cases, endoscopically positive GERD was recorded. Of these: 70% had grade A, which was characterized by the presence of defects from 1 to 3, each less than 5 mm in size; 30% of adolescents had grade B - endoscopically, the defects of the esophageal mucosa were more than 5 mm in size, but did not go beyond 2 folds.

Esophageal motility disorders were confirmed by examination of 125 adolescents with GERD by intraesophageal rheography. In 55% of cases, a reduced secondary peristalsis of the esophagus was found, and in 20% it was absent. In addition, in 18% of cases, GERD was combined with duodeno-gastric reflux, which significantly aggravated the course of the disease. In order to assess the effectiveness of treatment for GERD, 75 adolescents were examined, who were blinded and divided into 2 groups. The first group consisted of 45 adolescents, who were prescribed an inhibitor of H<sup>+</sup>, K<sup>-</sup> ATPase Omeprazole as a means of antisecretory therapy for 2 months, according to the scheme (the first month - 20 mg once a day, in the morning, on an empty stomach; then 10 mg 1 time per day, in the morning, on an empty stomach for 4 weeks). The second group consisted of 30 adolescents who received Omeprazole for 4 weeks, 20 mg once a day, in the morning, on an empty stomach. Then they were prescribed a blocker of H<sub>2</sub> receptors - Ranitidine at the rate of 150 mg 2 times a day for 4 consecutive weeks.

In adolescents of the first group, there is a persistent disappearance of the main clinical symptoms of the disease, with the exception of belching with air, but its intensity has decreased by 2 times. In the second group, after 4 weeks of treatment, the dynamics of the decrease in the severity of clinical symptoms corresponded to that in the first group, whereas after 8 weeks in this group of adolescents, heartburn and sour belching reappeared, which amounted to 17.8% and 6.7% of cases

**Conclusion.** Gastroesophageal reflux disease was detected in 5.4% of 4200 adolescents with gastrointestinal diseases. Esophageal motility disorders were of key importance in the development of GERD in adolescents. According to the endoscopic data obtained in adolescents, mainly A and B degrees of damage to the esophageal mucosa were detected. The clinical efficacy of treatment of gastroesophageal reflux disease depended on the duration of antisecretory therapy with H<sup>+</sup>, K<sup>-</sup> ATPase inhibitors.