



## **IRON DEFICIENCY ANEMIA IN CHILDREN WITH CHRONIC GASTRODUODENITIS OF HELICOBACTERIOUS ETIOLOGY**

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**Abstract:** *Helicobacter pylori* infection is one of the most widespread infections on the globe. *Helicobacter pylori* infection is involved in the development of iron deficiency anemia (IDA) against the background of gastroduodenal diseases, which are more common in the pediatric population [1,5]. Currently, there are increasingly more studies studying the connection between *Helicobacter pylori* infection and the development of food allergies. *Helicobacter pylori* infection manifests itself in various unexpected symptoms of extragastric diseases, one of the most common is iron deficiency anemia [2,3].

*In childhood, in addition to gastroduodenal pathology, there is a possibility of developing iron deficiency and iron deficiency anemia, vitamin B12 deficiency, growth retardation in adolescents, skin diseases, chronic urticaria, atopic dermatitis, food allergies against the background of persistence of Helicobacter pylori [4].*

*One of the factors with which the characteristics of clinical forms of Helicobacter pylori-associated diseases are usually associated is the genetic characteristics of the microorganism, which determines its virulence.*

**Key words:** *children, iron deficiency anemia, Helicobacter pylori, chronic gastroduodenitis.*

**Purpose of the study:** To study the peculiarities of the formation of iron deficiency anemia in chronic gastroduodenitis of *Helicobacter pylori* etiology.

### **Materials and methods of research.**

Biochemical and laboratory analysis methods were carried out to determine iron and ferritin in blood serum. Iron deficiency anemia can occur in children aged 12 to 16 years during puberty. A number of studies were conducted among children aged 12 to 16 years, puberty, with iron deficiency anemia and extragastric manifestations of helicobacteriosis.

**Research results:** In 58 children (32 boys and 26 girls), hemoglobin, serum iron levels, serum ferritin and IgG antibodies to *Helicobacter pylori* were measured. Levels of hemoglobin, serum iron, and serum ferritin were measured in the group with and without *Helicobacter pylori* infection. The prevalence of anemia, iron deficiency, iron deficiency anemia, and *Helicobacter pylori* infection was 26.9%, 15.8%, 23.1%, and 27.3%, respectively. Positive rates of *Helicobacter pylori* in the anemia, hypoferritinemia, and iron deficiency group were 34.2%, 19.5%, and 35.3%, respectively, compared with 19.6% in the nonanemic group; 12.2% in the group without hypoferritinemia and 19.4% in the group with iron deficiency. The positive rate of *Helicobacter pylori* was 44.8% compared with 23.7% in the nonanemic group. Serum ferritin levels were significantly lower in the *Helicobacter pylori* -infected group ( $p = 0.0002$ ).



The relationship between the manifestations of anemia and Helicobacter pylori infection was clear in the main group of girls.

**Conclusion:** As a result of research, it was revealed that IDA is associated with the fact that Helicobacter pylori can affect the metabolism of iron absorption in the stomach and aggravate iron deficiency in adolescents; especially girls in adolescence are more vulnerable to iron deficiency.

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