



Options clinical manifestations of giardiasis in children

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ABSTRACT

In our study of patients identified the following options for the clinical manifestations of giardiasis contact allocated latent, subclinical and clinical form of giardiasis. We divided the latent, subclinical, and clinical forms of lyamliosis. In the latent form, the children did not complain, and the separation of the cysts averaged 0.6 cysts at the construction site. In subclinical and clinical forms, pain in the abdominal area, intestinal and gastric dyspepsia syndrome was observed. Separation of cysts in the subclinical form revealed 1.5 cysts at the construction site. In the clinical form of giardiasis, the clinical picture was bright, with the separation of cysts, on average, 2.5 cysts were found in the drying area. Dietary and drug therapy against lyamliosis is prescribed, distinguishing between latent, subclinical and clinical forms.

Keywords:

Children, giardiasis, clinical types .

To date, giardiasis is one of the most common invasions on the globe. According to the WHO Committee of experts, approximately 50 thousand people fall ill with giardiasis every year in Asia, Africa and Latin America. A very relevant problem of giardiasis is also for the CIS, especially for Uzbekistan [1]. Clinical manifestations of giardiasis are diverse, but lesions of the gastrointestinal tract prevail, which is associated with the localization of parasites in the duodenum and jejunum [2,5]. Along with severe clinical manifestations of giardiasis, latent forms are also described. The isolation of giardia without clinical manifestations is often used as an argument for assessing this condition as a healthy carrier of protozoa. However, with the accumulation of data on morphological changes in the microvilli of intestinal epithelial cells during invasion, as well as immunological shifts in the body with giardiasis, the possibility of their pathogenic

effects becomes obvious even with asymptomatic carrier [3]. Studies conducted in giardia carriers revealed both functional and morphological changes [5]. Thus, during histochemical examination of the mucous membrane of the small intestine in children who secrete giardia and have no clinical manifestations, endoscopic and histological studies of mucosal biopsies revealed focal or widespread hyperemia, swelling of the duodenal mucosa in 74% of the examined. It should be noted that the study of clinical manifestations of giardiasis is relevant for our region.

The purpose of the work. To study variants of clinical manifestations of giardiasis in children.

Materials and methods. We observed 36 children with latent, 78 children with subclinical and 62 with the clinical form of

giardiasis. The examination of children was carried out in the Samarkand Multidisciplinary Children's Medical Center. The age of the children ranged from 3 to 15 years. Diagnosis of giardiasis was based on complaints, anamnesis, clinical manifestations of giardiasis, as well as on an extended coprogram determination of protozoa in feces by formalin-ether enrichment. In addition, the method of approximate calculation of the intensity of the allocation of giardia was used. The method of fecal examination was carried out by the traditional method.

Results and their discussion. In our work, based on the severity of clinical manifestations, we identified latent, subclinical and clinical forms of giardiasis. Among the various forms of giardiasis invasion, its asymptomatic form occupies a special place. We observed 36 children with latent form aged from 3 to 15 years. The observed children did not complain, and the general clinical examination revealed no pathology. The physical development of the patients corresponded to their age. In these children, cyst production ranged from 0.5 to 0.7 and averaged 0.6 cysts in the field of vision. In the subclinical form of giardiasis, to which we referred 78 children aged 3 to 15 years, mild abdominal pain was most often observed (in 66 out of 78-84.6%), "intestinal" syndrome (in 52-66.7%) and less often "gastric" (in 25-32.1%) dyspepsia. Such symptoms, in general, are typical for giardiasis and are explained by the fact that it leads to the development of duodenitis and enteritis. This is evidenced by the peculiarities of localization of abdominal pain during palpation, which is reflected in Table 1.

Table 1.

Punctum maximum abdominal pain in the subclinical form of giardiasis.

Punctum maximum of pain	Number of children
Under the stomach	6 (7,6%)
In the piloroduodenal region	28 (35,8%)
The umbilical region	7 (8,9%)
Under the stomach + pyloroduodenal area	19 (24,3%)

Under the stomach + right hypochondrium	2 (2,5%)
Under the stomach + the area of the Treitz angle	2 (2,5%)
Under the stomach + along the course of the large intestine	1 (1,2%)
Under the stomach + left iliac region	1 (1,2%)

As can be seen from Table 1, in the subclinical form of giardiasis, abdominal pain during palpation was mainly localized in the pyloroduodenal (35.8%) and the substrate + pyloroduodenal zones (24.3%), which is characteristic of duodenitis (49.5%). Less often, pain was noted near the navel (8.9%) and the substrate in 6. In the children we observed, the pain was late, occurred on an empty stomach or appeared 1-2 hours after eating. Pains, as a rule, are pulling and dull pains. Only 3 out of 78 children (3.8%) had the Moynigan rhythm of pain (pain-food-relief). Along with a mild, pronounced pain syndrome, the children we observed with a subclinical form had dyspeptic phenomena. Nausea was most often observed (in 11 children out of 78 - 14.1%), which is characteristic of an increase in duodenal pressure with a simultaneous decrease in the pressure gradient between the stomach and duodenum. Less often - belching (in 8 patients - 10.2%), in the genesis of which a certain importance is attached to an increase in pressure in the stomach cavity due to an increase in its tone or pyloric spasm. And only 2 patients have vomiting and 2 have heartburn. Only 2 patients showed a decrease in appetite. Along with signs of so-called "gastric" dyspepsia, symptoms of "intestinal" dyspepsia were observed 2 times more often. Among the latter, unstable stools were observed most often (in 38 out of 78 patients - 48.7%). These children were also more likely to have loose stools, feces were homogeneous light yellow in color without pathological impurities (blood and mucus). Only 6 (7.6%) patients suffered from flatulence, 6 (7.6%) had constipation, and 2 patients (2.5%) had rumbling in the abdomen. In 3 patients (3.8%), the lower edge of the liver

protruded along the anterior axillary and midclavicular lines by 4 cm and was slightly painful on palpation. These children had viral hepatitis a year ago. The physical development of children with a subclinical form of giardiasis was assessed by the method of centile tables. Body weight in children with subclinical giardiasis was more often average (in 64 out of 78- 82%), and below average in 8 out of 78 (10.2%), above average in 4 out of 78 (5.1%) children. Pallor of the skin was noted only in one child (1.2%). The bone system, respiratory organs, and cardiovascular system in patients with subclinical giardiasis were not changed. Two children complained of headaches, 4 patients complained of irritability. Cyst excretion in the subclinical form ranged from 0.7 to 2.2, with an average of 1.5 cysts in the field of vision. We observed 62 patients with clinically pronounced giardiasis aged from 3 to 15 years. Compared with the subclinical form in patients of this group, all children had more intense abdominal pain, manifestations of "gastric" and "intestinal" dyspepsia. In addition, some patients had a relatively low body weight and stunting, which indicated in favor of impaired absorption of nutrients. Of interest was the maximum localization of pain during palpation of the abdomen Table 2.

Table 2.
Punctum maximum abdominal pain in the clinical form of giardiasis.

Punctum maximum of pain	Number of children
Under the stomach	8 (12,9%)
In the piloroduodenal region	30 (48,3%)
The umbilical region	9 (14,5%)
Under the stomach + pyloroduodenal area	12 (19,3%)
Under the stomach + right hypochondrium	2 (3,2%)
Under the stomach +the area of the Treitz angle	- (0%)
Under the stomach + along the course of the large intestine	1 (1,6%)
Under the stomach+left iliac region	- (0%)

As can be seen from Table 2, most often the maximum pain during palpation of the abdomen in children with a clinical form of giardiasis was localized in the pyloroduodenal and pyloroduodenal areas (in 42 out of 62 children – 67.7%), which is also characteristic of duodenal lesions. Patients with the clinical form of giardiasis had late pains appearing on an empty stomach or 1-2 hours after eating. Although the pains were dull, they were more prolonged than in the subclinical form [7]. The Moynigan rhythm of pain was observed only in 5 out of 62 (8%) patients. Significantly more often than in the subclinical form, manifestations of "gastric" dyspepsia were observed. Thus, nausea was in 18 of 62 (29%) children, belching in 11 (17.7%), heartburn in 6 (9.6%). 26 children had a decrease in appetite. Enteral syndrome was more pronounced. Thus, 55 out of 62 (88.7%) children had unstable stools. 6 (9.6%) have flatulence and 3 (4.8%) have rumbling in the stomach. During coprological examination, leukocytes, epithelial cells, fatty acid crystals were found in the stool. In 17 out of 62 (27.4%), the stool is liquid, with the presence of muscle fibers, connective tissue, plant fiber (duodenal syndrome) [8]. In 28 out of 62 (12.9%) patients, the bowel movements are liquid, abundant yellow-gray, greasy. The study determined neutral fats, starch grains, muscle fibers, which is characteristic of pancreatic insufficiency. Only 2 out of 62 (3.2%) had mucus in their feces. In 13 out of 62 (20.9%) children with a clinical form of giardiasis, we detected an increase in the liver. It is known from the anamnesis that these children had previously had viral hepatitis. The average body weight was in 37 out of 62 children (59.7%), lower than average in 17 (27.4%), and low in 7 (11.2%). Naturally, in the clinical form of giardiasis, disharmonious development was noted more often (in 24 out of 62 -38.7%) (the difference in the corridors of 2 intervals). Pallor of the skin was noted in 41 of 62 (66.1%), and in 2 patients (3.2%), a large-spotted rash of an allergic nature (such as urticaria) was noted on the trunk, chest, and abdomen. No pathology was detected from the bone system and respiratory organs in the patients studied by us. In 3 out of 62 (4.8%) children, a gentle systolic

murmur at the apex of the heart of a functional nature was listened to. The limits of relative stupidity within the age norm. In addition, patients often complained of weakness (11 out of 62 – 17.7%), irritability (18 children – 29%), less often sleep disorders and headache. In the clinically pronounced form of giardiasis, cystic discharge ranged from 2.2 to 2.8, averaging 2.5 cysts in the field of vision.

Conclusion. Thus, giardiasis, especially in children, is clinically manifested in a variety – from pure giardiasis to severe forms. Clinically, it is advisable to distinguish latent, subclinical and clinical forms of giardiasis, because along with a single anti-giardiasis drug therapy, dietary therapy is required.

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