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### FEATURES OF ETIOLOGIS. PATHOGENESIS AND TACTICS OF COMPLEX TREATMENT OF HEMORRHOIDS IN CHILDREN





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# БОЛАЛАРДА ГЕМОРРОЙНИНГ ЭТИОЛОГИЯСИ, ПАТОГЕНЕЗИ ВА КОМПЛЕКС ДАВОЛАШНИНГ ЎЗИГА ХОС ХУСУСИЯТЛАРИ

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# ОСОБЕННОСТИ ЭТИОЛОГИИ, ПАТОГЕНЕЗА И ТАКТИКА КОМПЛЕКСНОГО ЛЕЧЕНИЯ ГЕМОРРОЯ У ДЕТЕЙ

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Резюме. Ушбу илмий маколада охирги 11 йил давомида геморрой касаллиги билан текширилган ва даволанган 90 нафар бемор болалар маьлумотлари кўрсатиб ўтилган. Бир қатор муоллифлар томонидан болаларда геморрой касаллигининг этиопатогенези тиббий адабиётларда кам кўрсатиб ўтилган ва ўзларининг татқиқот маьлумотлари билан ўзаро таққосланған. Болаларда геморройнинг комплекс даволаш жараёнида таклиф қилишган ноинвазив – компрессион усул эрта ва мактаб ёшида бўлган болалар ўртасида нисбатан самарали усул хисобланади. Геморрой билан комплекс консерватив даволанган 44 (48,8%) нафар бемор болаларнинг узоқ натижалари ўрганилганда 38(86,5%) да беморларда яхши, 4(9%) да қониқарли натижалар олиниб, фақат 2(4,5%) да қониқарсиз (кайталаниш) натижалар кузатилди. Болаларда геморройнинг хирургик давоси 11 (12,2%) та беморда утказилди. Геморроидэктомия амалиётига кўрсатма бўлиб хисобланади: Бу геморроидал тугунларнинг қисман тушиши. Ўтқазилган жаррохлик амалиётларидан сўнг барча холатларда яхши натижалар олинган бўлиб, қайталаниш кузатилмади. Хирургик беморларни узок натижаларини урганганимизда, уларнинг хаммасида яхши натижалар кузатилди.

**Калит сўзлар:**Болаларда геморрой, консерватив даво, хирургик даво.

Abstract. This paper presents clinical materials from the examination and treatment of 90 children with hemorrhoids over the past 11 years. The authors compare the features of the etiopathogenesis of hemorrhoids in children from the literature and their own research data. The proposed non-invasive compression methods in the complex treatment of hemorrhoids in childhood are more effective among children of early and preschool age. A study of long-term results of complex conservative treatment in 44 patients with hemorrhoids, good results were noted in 38(86.5%), satisfactory - in 4(9%) and unsatisfactory (relapses) - in 2(4.5%) of patients. Surgical treatment of hemorrhoids in children was used only when a course of conservative treatment was unsuccessful in 11 (12.2%) patients with good long-term results in all cases. Indications for hemorrhoidectomy were: frequent prolapse of hemorrhoids (HU). After surgical treatment, good results were obtained in all cases; no relapses were observed. Thanks to the optimization of conservative and surgical treatment taking into account the age characteristics of children, good results were achieved.

Key words: hemorrhoids in children, conservative treatment, surgical treatment.

**Relevance.** Hemorrhoids are the most common proctological disease in adults; they are rare in children and relatively common in older age. Hemorrhoids have been known since ancient times; it has always been considered the prerogative of adult patients [1,3,8].

In the domestic literature there are practically very few works devoted to the study of hemorrhoids

in childhood, although it cannot be classified as a rare disease. The limited available data on the prevalence of hemorrhoids in children is due to the lack of clear diagnostic criteria. At the same time, often various variants of perianal protrusions and the causes of bleeding from the anus are mistakenly attributed to hemorrhoids [2,4,14,17,21]. In this regard, hemorrhoids in children are a little studied proctological disease [5.3,11].

According to literature data, the proportion of hemorrhoids in the structure of diseases of the colon in adults ranges from 34-41%, and in children it occurs much less frequently, 8% among all diseases of the colon and perineum [8,12,13,14].

Usually, within 1–2 weeks, an acute attack is stopped by local treatment (stool thinning, suppositories, ointments, pararectal novocaine blockade), or much less frequently. More often, hemorrhoidal thrombosis is limited to 1 prolapsed node, almost painless on palpation. Thus, acute hemorrhoids can be divided into 3 clinical forms: a) perianal hemorrhoidal thrombosis; b) strangulation of fallen GUs with varying degrees of necrosis; c) profuse hemorrhoidal bleeding is very rare in children [12,14,16].

Thus, in pediatric surgical practice, a clear concept has not been formed about the specific cause, pathogenesis of the disease, as well as optimization of diagnosis, differentiated tactics and the method of complex treatment depending on the age of children, which requires further scientific study.

**Purpose:** To improve the results of treatment of hemorrhoids in children by studying the features of the clinical course and tactics of an integrated approach to treatment in an age aspect.

Materials and methods. At clinical bases (1-city children's clinical hospital, Samarkand children's multidisciplinary center and private clinic DH-Shifo) over the past 11 years, 90 sick children with hemorrhoids aged under 1 year – 2 (2.2%) received inpatient and outpatient treatment ); 1–3 years – 22 (24.4%); 3–6 years – 46 (51.1%); 7–12 years old – 9 (10%); 13–18 years old – 11 (12.2%). External hemorrhoids were detected - in 86 (95.5%); internal – in 4 (4.5%) patients. There were 62 boys (68.8%), 28 girls (31.2%). Long-term results were studied in 56 (62.2%) patients with hemorrhoids out of 90 children. Among those studied, in 44 (48.8%) patients after conservative and 11 (11.2%) patients after surgical treatment.

All patients underwent examinations: general clinical examination, laboratory examination, orthostatic physical exercise by "sitting", digital rectal examination, anoscopy and rectoscopy. Additionally: using Doppler ultrasound, vascular disorders of the pelvic floor venous system were studied; with polypositional irrigography, conditions of elongation, narrowing, prolapse and defects in fixation of the co-

lon were revealed; with sigmoidoscopy, the condition of the mucous membrane of the rectum and sigmoid colon, leading to motor-evacuation disturbance or two-stage defecation.

**Results and its discussion.** We retrospectively studied the long-term results of treatment of hemorrhoids in 56 (62.2%) patients based on study and follow-up data, a questionnaire) and a comprehensive clinical examination. A high incidence rate was noted in patients 1-3 years old -22 (24.4%) and 3-6 years old -46 (51.1%). In the anamnesis, 13 (14.4%) sick children noted the presence of hemorrhoids in their parents.

The main causes of hemorrhoids in children were: persistent chronic constipation - in 42% of patients; increased diarrhea - in 18%; two-stage act of defecation, prolonged sitting and straining) - in 20%; stress in sports - 10%; intense and continuous cough - in 5.5%; strained urination - in 4.5%), etc. Which contributed to an increase in intra-abdominal pressure. These etiological aspects differed in the age aspect of sick children with hemorrhoids. At the same time, periodic and prolonged sitting on the potty or toilet was typical for preschool children. At school age, persistent chronic constipation often contributed to hemorrhoids. In adolescence, overload and overexertion during sports exercises or physical work, long sitting near the computer.

During the initial diagnosis using external and rectal examination, we found that hemorrhoids were most often localized at 3, 7 and 11 o'clock on the dial on the corresponding localization of hemorrhoidal cushions: at 2-5 o'clock on the dial - in 27 (35%); at 6-9 o'clock - 30 (39%) and at 10-12 o'clock 20 (26%).

These typical localizations of hemorrhoids are most of all evidence of the congenital genesis of the disease in children. The sizes of hemorrhoids ranged from 0.5 cm to 2.5 cm in diameter. The number of hemorrhoids was noted: with one – in 52 (60%) patients; with two – in 25 (29%); with three – in 8 (9%) and more than 3 – in 2 (2%). Protrusion of hemorrhoids during orthostatic load (oversitting), in patients with hemorrhoids, a transient condition was detected in 28 (32%) and a permanent condition in 59 (68%), of which 8 (13.5%) patients had thrombosis of hemorrhoids.

In terms of age, hemorrhoids in children clinically presented in a more atypical form than in older children. Hemorrhoids in young children begin to appear gradually and unnoticeably. Next, a feeling of discomfort appears in the anus. In school-age children, this symptom was accompanied by itching of the anus, and in older children, local pain in the anus appeared later than other local symptoms. In most patients, the course of the disease was without inflammation or with moderate inflammation of the hemorrhoids. In older children, pain appeared only after the addition of inflammatory phenomena (cracks

or ulcers), thrombophlebitis, and also when hemorrhoids were pinched. With thrombophlebitis, defecation was difficult and painful. Thus, in children of all age groups, the cardinal symptom of hemorrhoids was only enlarged hemorrhoids and hemorrhoidal bleeding was absent in almost all patients.

Surgical treatment for hemorrhoids in adolescent children was carried out only in a hospital setting in 11 (11.2%) patients. Among those operated on, in 2 cases urgent hemorrhoidectomy was performed for acute thrombosis of hemorrhoids, in the remaining 9 cases for planned indications. When choosing indications for hemorrhoidectomy, there were absolute and relative, depending on the nature of the existing pathology. The absolute indications were the presence of large and merging varicose nodes, often prolapsed nodes causing discomfort and pain that disrupted the act of defecation. Relative indications: moderately severe hemorrhoids with rare exacerbations of hemorrhoids, single, multiple and tense external hemorrhoids that are not amenable to conservative treatment. For hemorrhoids in children, general anesthesia was used.

Among the numerous methods of hemorrhoidectomy in childhood, we used only more gentle methods. At the same time, an important point in choosing a method was the assessment of the condition of the base of the pedicle of single or multiple single hemorrhoids.

With narrow bases, the legs of the hemorrhoids were grabbed with a clamp and pulled upward, the skin was excised circularly, sutured at the base with Vicryl 5/0 thread, the stump was immersed in the wound and the wound was sutured longitudinally with continuous sutures using the same thread. We performed a similar operation in 4 patients. No relapses were noted.

In case of a wide base of single or multiple nodes, after circular excision on a wide base of the legs, the nodes were sutured up piece by piece with Vicryl 5/0 thread, the wound was sutured transversely with continuous sutures. To prevent pain in the post-operative period at the base of the surgical wound and around, a 2% solution of novocaine 3-5 ml was injected circularly into the area of the mucocutaneous junction. We performed a similar operation on 7 patients.

After the operation, a large Foley catheter (No. 28-30) was inserted into the anus and around the area of the surgical wound a trundum soaked in Baxtims balm was left, which envelops the wounds and protects against infection. Gases and intestinal contents pass freely. No relapses were noted.

In the postoperative period, patients were prescribed painkillers 2 times on the first 3 days. The gas outlet tube functioned well in the postoperative period until days 5-7 with the help of a cleansing enema with chamomile solution. Good results of surgical

treatment were noted in all cases. In the long-term period, no relapses were observed.

Thus, when studying the long-term results of a complex of conservative treatment in 44 (48.8%) patients with hemorrhoids, good results were obtained in 38 (86.5%), satisfactory - in 4 (9%), and unsatisfactory - in 2 (4.5%) patients. Surgical treatment for hemorrhoids was performed in 11 (11.2%) patients. At the same time, in all cases good long-term results were obtained.

#### **Conclusions:**

- 1. For patients with hemorrhoids of early and preschool age, non-invasive compression treatment is effective.
- 2. School age and adolescence are more susceptible to surgical (hemorrhoidectomy) treatment. Indications for surgery are: the presence of large, frequently protruding, pinching nodes that interfere with the act of defecation.

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### ОСОБЕННОСТИ ЭТИОЛОГИИ, ПАТОГЕНЕЗА И ТАКТИКА КОМПЛЕКСНОГО ЛЕЧЕНИЯ ГЕМОРРОЯ У ДЕТЕЙ

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Резюме. В данной работе представлен клинический материал обследования и лечения 90 детей с геморроем за последние 11 лет. Авторы сопоставляют особенности этиопатогенеза геморроя у детей на основе литературных и собственных данных исследований. Предлагаемый неинвазивный компрессионный метод в комплексном лечение геморроя в детском возрасте, является более эффективным среди детей раннего и дошкольного возраста. При изучение отдаленных результатов комплексного консервативного лечения у 44 (48,8%) больных с геморроем хорошие результаты отмечены у (86,5%), удовлетворительные - у 4 (9%) и неудовлетворительные (рецидивы) - у 2 (4,5%) больных. Хирургическое лечение с геморроем проведено у 11 (12.2%) больных. Показанием к геморройэктомии являлось частое выпадение геморроидальных узлов (ГУ). После хирургического лечения во всех случаях были получены хорошие результаты, рецидивов не наблюдалось.

**Ключевые слова:** геморрой у детей, консервативное лечение, хирургическое лечение.