



FACTORS PREDISPOSING TO THE DEVELOPMENT OF CONSTIPATION IN CHILDREN FROM 4 TO 18 YEARS IN THE BUKHARA

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Article history:	Abstract:
Received: December 7 th 2023 Accepted: January 7 th 2024 Published: February 10 th 2024	The article examines possible predisposing factors for the development of constipation in children and discusses common causes and complications of constipation in children. The currently relevant causes leading to the development of constipation in children are considered, the complaints and observations of parents set out in a questionnaire compiled to identify constipation in children in the practice of a pediatrician are taken into account.

Keywords: children, gastrointestinal tract, constipation, incontinence

RELEVANCE. The most common pathological condition of the gastrointestinal tract (GIT) in children of all ages is constipation. Many decades have been devoted to studying the problems of constipation throughout the world. Many scientific studies indicate the frequency, prevalence and factors predisposing the development of constipation in all age groups. It is known that this pathology often occurs in children. Constipation is expressed in intestinal dysfunction and a decrease (compared to the individual physiological norm) in the age-related rhythm of bowel movement, its difficulty, systematic insufficient bowel movements or changes in the shape and nature of stool. It is believed that under physiological conditions, the frequency of stool in breastfed children is from 1 to 6–7 times a day, in children under 3 years old - at least 6 times a week, over 3 years old - at least 3 times a week. However, the most important factor determining the concept of "constipation" is the completeness of bowel movements. With incomplete, ineffective bowel movements, constipation is diagnosed even with an age-appropriate frequency of bowel movements. Rare bowel movements are not considered a pathology provided that the intestines are completely empty, the stool is of normal consistency, there are no signs of chronic intoxication and nutritional deficiency, vomiting and regurgitation, other signs of the disease, satisfactory physical development and preserved appetite. According to clinical observations, it is often the misunderstanding of the concept of "constipation" only as "rare bowel movements" that leads to late seeking medical help already at the stage of decompensation with the development of complications.

According to etiology, all constipation is divided into 2 groups: functional and organic. Organic constipation is caused by structural pathology of the intestine. These constipations develop with congenital anomalies, as well

as with intestinal malformations (Hirschsprung's disease, Payr's syndrome; anomalies of intestinal rotation and fixation, megacolon, megarectum, fistulous forms of rectal atresia, as well as with anorectal pathology, tumors, etc.). Chronic constipation can also occur with cystic fibrosis and celiac disease. The following risk factors for functional constipation are identified:

- genetic predisposition;
- psychophysiological reasons: suppression of the urge to defecate due to "fear of the potty",
- neuroses of various etiologies;
- depressive states;
- lack of "comfortable conditions" for carrying out the act of defecation (at school, kindergarten), imperative education of toilet skills (in children 1–2 years old), etc.;
- systemic connective tissue dysplasia, which is often observed with hypermobility and elongation of the colon, changes in the morphology of its wall with the rapid development of hypotension and hypokinesia;
- disturbances of nervous and endocrine regulation at different levels: functional immaturity of the colon and insufficient number of ganglia of the intramural nerve plexuses (in children under 1.5 years old);
- immaturity of the higher vegetative and cortical centers for the regulation of defecation in young children (up to 2 years), perinatal lesions of the central nervous system; vegetodystonia; disorders of spinal innervation; endocrine diseases (hypothyroidism, hyperparathyroidism, chronic adrenal insufficiency);
- physical inactivity (with insufficient physical activity, prolonged bed rest);
- previous intestinal infections (due to impaired maturation or development of dystrophic changes in intramural ganglia after intestinal infections suffered at an early age, including staphylococcal enterocolitis, dysentery);



- food allergies, in which constipation may be the only manifestation of the latter;

- nutritional: quantitative underfeeding; lack of plant fiber in food; insufficient fluid intake, as a result of which its absorption in the colon increases; violation of diet, refusal to eat breakfast; • diseases of other organs (reflex constipation);

- metabolic disorders and chronic intoxication: chronic renal failure; water and electrolyte disturbances (hypokalemia, hypercalcemia, acidosis); poisoning with salts of heavy metals; • iatrogenic: hypervitaminosis D, taking anesthetics, diuretics, muscle relaxants, anticholinergics, sulfonamides, fluoroquinolones, psychotropic and anticonvulsants, aluminum-containing antacids, iron supplements, etc. In most cases, a complex of predisposing factors can be identified in one patient. However, the most difficult to correct and prognostically unfavorable are constipation that developed against the background of systemic connective tissue dysplasia, that is, in the presence of a certain anatomical substrate. It is in these children, according to our observations, that stool loss often develops; constipation begins with constantly insufficient bowel movements during seemingly daily bowel movements, which is the reason for the underestimation of the severity of the child's condition not only by the parents, but also by the pediatrician supervising him. In the case of psychophysiological constipation, which is often observed in children 1–3 years old, parents note that when the urge to defecate appears, the child tries to suppress it, hides or empties the intestines in an unusual place ("fear of the potty"). This situation occurs when forced potty training or when painful defecation is observed, even once, which the child remembers for a long time and associates with using the potty. The most common causes of functional constipation in young children (0–4 years) are:

- transfer to artificial feeding;

- formation of food allergies (primarily to cow's milk proteins); • imperative education of toilet skills (in children 1–2 years old);

- painful bowel movements with the development of "potty fear";

- start visiting a child care facility;

- lack of "comfortable" conditions for the act of defecation. The basis of the pathogenesis of functional constipation is an imbalance of inhibitory and stimulating neurohumoral influences on intestinal motor function, a violation of the relationship between propulsive and retrograde motility in the absence of visible morphological changes in the intestine. There may be a decrease in propulsive activity and slower transit throughout the colon (hypomotor cologenic

constipation) or impaired movement of contents along the rectosigmoid region with impaired expulsion function (proctogenic constipation). In the pathogenesis of proctogenic constipation, a certain role is played by an increase in the threshold of excitability of rectal mucosa receptors to filling, changes in the reservoir function of the rectum, spasm of the internal anal sphincter, dysfunction of the pelvic floor muscles, loss of the conditioned reflex to the act of defecation, as a result of which the evacuation of intestinal contents is disrupted.

THE PURPOSE of our work was to study the causes predisposing the occurrence of constipation in children 4-18 years old.

RESEARCH METHODS. To establish factors predisposing to constipation in children in the Bukhara region, 227 children were examined. These studies were carried out in the advisory clinic and gastroenterology department of the Regional Medical Center in Bukhara region. A questionnaire was used with criteria for defining and diagnosing constipation. The time to answer the questionnaire took 15-20 minutes

RESULTS OF THE STUDY AND THEIR DISCUSSIONS.

In studies conducted on the basis of the Children's Medical Center of the Bukhara region for 2022-2023, 227 children with constipation aged 4-18 years were examined. According to gender differences, girls with constipation were 109 (48%), and boys - 118 (52)%. The frequency of constipation among gastrointestinal diseases was 39%. This suggests that constipation is not often reported or diagnosed for one reason or another. According to a survey based on the words of older children and parents, the following complaints were identified: staying in the toilet for a long time, straining, pain during bowel movements, feeling incomplete bowel movements, hard stools, blockage of the toilet. Complications in the form of incontinence were also identified in 11 children (4.8%), 8 (3.5%) of them were 7-11 years old, 3 (1.3%) were 12-13 years old. According to data collected when establishing the causes of constipation in children in our region, the following factors predisposing to constipation were established: psycho-emotional (lack of comfortable conditions, fear of the potty, neuroses, poor adaptation in kindergartens and primary grades in schools) - 36.5%, genetic predisposition (presence of relatives with constipation in the medical history) - 28%, nutritional - 11% (consumption of foods containing fiber



in small quantities), previous intestinal diseases (diarrhea, shigellosis) - 7%, use of certain medications for one reason or another (anticonvulsants), antacids, antianemic) - 6.3%, eating disorders - 5.8% (receives food during the day without a regimen), physical inactivity - 5.4% (is overweight, remains in a stationary position for a long time due to watching TV and playing games on the phone).

When assessing stool according to the Bristol scale of the studied children, we found: type I stool in 94 children - 41.4%, type II stool in 107 children - 47.1%, type III stool in 26 children - 11.4%.

We found that 13 children (5.7%) sometimes had streaks of blood and anal fissures during defecation. It should also be noted that 96 children (42.2%) of school age, according to their parents, had frequent mood swings and poor performance in some subjects

CONCLUSIONS. According to the results we received for 2022-2023 in the ODMMC of the Bukhara region, it was found that the frequency of constipation among gastrointestinal diseases was 39%. 227 children 4-18 years old complained of prolonged stay in the toilet, straining and pain during bowel movements, a feeling of incomplete bowel movement, hard stool, and blockage of the toilet. The prevalence of constipation among boys in our studies was 52%. An important place is occupied by complications of constipation in the studied children: incontinence (4.8%) and fissures in the perianal zone (5.7%). Identified factors predisposing to constipation (psycho-emotional: lack of comfortable conditions, fear of the potty, neuroses, poor adaptation in kindergartens and primary grades in schools; genetic predisposition, nutritional, previous intestinal diseases, use of certain medications for one reason or another, eating disorders regime, physical inactivity) were established according to the questionnaire and indicate the same reasons and factors of other researchers. Assessment of stool type using the Bristol scale showed that most often in children with constipation, hard-lumpy, difficult-to-pass and lumpy stool types (types I and II) were observed. An analysis of the quality of life of the studied children showed that this condition in 42.2% of cases affected their life and studies in everyday life. To summarize, it should be noted that constipation as a problem is not only medical, but also social, can greatly affect the general condition of the body of children as a whole and requires timely identification of the causes, a thorough examination and selection of the correct treatment tactics for the future generation.

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