World Bulletin of Public Health (WBPH)
Available Online at: https://www.scholarexpress.net
Volume-26, September 2023
ISSN: 2749-3644

DIARRHEA POISONING AND COURSE IN PATIENTS, TREATMENT METHODS

Khazhimatov Ravshanbek Sobirzhanovich
Assistant, Andijan State Medical Institute, Uzbekistan

Article history:
Received: July 24th 2023
Accepted: August 26th 2023
Published: September 28th 2023

Abstract:
The main causes of acute diarrhea are infection and malnutrition. Acute diarrhea is also associated with the consumption of food (seafood) stored in unhygienic conditions or contaminated during irrigation.

Keywords:

The main causes of acute diarrhea are infection and malnutrition. Acute diarrhea is also associated with the consumption of food (seafood) stored in unhygienic conditions or contaminated during irrigation. Less commonly, it is caused by the consumption of foods or water containing an excessive concentration of copper salts, ethylene glycol, benzene derivatives, acute forms of ulcerative colitis, Crohn's disease, radiation damage to the intestines and iatrogenics (taking medications, surgical interventions). The occurrence of acute diarrhea is also possible in persons predisposed to food allergies when consuming the corresponding products.

Infectious diarrhea is caused by a wide range of bacteria, viruses and parasites, most of which are spread through fecal-contaminated water. Infections are most common where there is a lack of clean water for drinking, cooking and personal hygiene. In developing countries, intestinal bacteria and parasites are more common causes of diarrhea than viruses, especially during the summer months. In developing countries, any form of Escherichia (E.) coli causes disease in children, while in developed countries, the most common cause of diarrhea is enterohemorrhagic E. coli (EHEC, including E. coli 0157:H7) [8]. Campylobacter is prevalent in adults and is one of the most commonly isolated bacteria from feces in neonates and children in developing countries. In industrialized countries, the cause of acute diarrhea is mainly viruses, with a clear predominance in winter.

Diarrhea due to malnutrition is especially common in children. Each case of diarrhea in turn worsens their malnutrition. In this regard, it is one of the leading causes of death among children under 5 years of age. The mechanism of development of infectious diarrhea of a bacterial nature, as a rule, includes the production of an enterotoxin (Vibrio cholera, enterotoxin-forming E. coli, clostridia), which increases the activity of adenylate cyclase. This leads to the accumulation of cyclic adenosine monophosphate inside the intestinal epithelial cells. The latter stimulates the secretion of water and electrolytes by enterocytes. Another mechanism of diarrhea is associated with direct damage to the epithelial cells of the intestinal mucosa by infectious agents (viruses, protozoa, Shigella, enteroinvasive strains of Escherichia coli, salmonella). Chronic diarrhea is often non-infectious in nature.

The pathogenesis of diarrhea is realized through 4 mechanisms:

– violation of intestinal secretion; – increased osmotic pressure in the intestinal cavity; – violation of the transit of intestinal contents;

– increased intestinal exudation.

The predominance of one or another mechanism determines the nature of diarrhea. There are exudative, osmotic, secretory and motor diarrhea.

Clinic and diagnosis: Characteristics of the frequency of bowel movements, the volume and appearance of feces, the presence and degree of dehydration, and symptoms accompanying diarrhea allow in each specific case, taking into account a significant number of different reasons, to assume the presence of one or another disease. Thus, in most patients with diarrhea, the diagnosis can be established on the basis of complaints, anamnesis, physical examination, proctological examination, macro- and microscopic examination of stool.

Diagnosis of the disease that caused diarrhea begins with a careful collection of complaints and anamnesis of the disease. In this case, the doctor must obtain the following information: - frequency of bowel movements and volume of stool over 1 day, - the presence of tenesmus and bowel movements at night, - the relationship of diarrhea with abdominal pain or flatulence, - the presence of pathological impurities in the stool, - the presence of weight loss.

A thorough assessment of the clinical picture of the disease helps to distinguish between enteral and colitic diarrhea.

Features of diagnosis for various types of diarrhea

There are 3 degrees of dehydration:

1. Early dehydration – has no signs or symptoms.

World Bulletin of Public Health (WBPH)
Available Online at: https://www.scholarexpress.net
Volume-26, September 2023
ISSN: 2749-3644

2. Moderate dehydration: – thirst; – restless behavior and irritability; – decreased skin elasticity; – sunken eyes.

3. Severe dehydration: – symptoms become more severe; – shock, confusion, lack of urination, cold and wet extremities, rapid and weak pulse, low or undetectable blood pressure and pale skin.

Features of the diagnosis of osmotic diarrhea. Osmotic diarrhea is accompanied by the release of a large volume of watery stool, usually without pathological impurities. The causes of osmotic diarrhea are the intake of poorly absorbed cations (for example, magnesium), anions (for example, sulfate), high-atomic alcohols (for example, sorbitol) and insufficient absorption of carbohydrates (for example, lactose in lactase deficiency). For the diagnosis of osmotic diarrhea, the determination of stool pH is essential, which, as a rule, changes.

Differential diagnosis

In a clinical setting, differential diagnosis begins with the clinic, anamnesis and Bristeau stool characteristics la scale, which makes it possible to verify the nature of the stool. Laboratory testing of stool consistency complements the diagnosis, but its results are delayed. The presence of acute diarrhea with signs of intoxication is most likely associated with an infectious factor. Chronic diarrhea is much less due to infection. Its temporal characteristics make it possible with a fairly high probability to exclude the infectious nature of diarrhea after 1 month, but does not make it possible to determine at an earlier time the participation of this factor in the genesis of diarrheal syndrome.

In addition to the classification of diarrhea by duration, the pathophysiology and characteristics of the stool (watery, greasy, or with signs of inflammation) are of particular importance in making the diagnosis. In this regard, a careful review of the medical history remains an important part of the evaluation of a patient with diarrhea. Instrumental research methods (x-ray and endoscopic with biopsy of the small and large intestines) are key in the diagnostic search for the cause of diarrhea. In recent years, diagnosis of the cause of diarrhea has improved with the use of endomicroscopy and molecular research methods. Of particular importance is the study of the role of intestinal microflora in the formation of a particular pathology. Serological tests have a well-defined role in the diagnosis of celiac disease, but less so in the verification of autoimmune and inflammatory bowel diseases. Quantitative determination of peptide hormones in the blood and intestinal tissue makes it possible to diagnose apudoms with a high degree of probability, but cannot be used as a screening test. Breath tests to assess carbohydrate absorption, small intestinal bacterial dysbiosis, and intestinal transit disorders have limited technical capabilities that reduce their sensitivity and specificity. Similarly, the methods used to assess bile acid absorption have limited information content.

Indications for hospitalization: – signs of dehydration; – change in mental status; – young age (<6 months or <8 kg weight); – history of premature birth, chronic or concomitant diseases; – fever >38oC in newborns up to 3 months. Or >39oC in children aged 3–36 months; – visible blood in the stool; – diarrhea with high stool frequency, including large volumes of feces; – persistent vomiting, severe dehydration, persistent fever; – suboptimal response to oral rehydration therapy or inability to prescribe it; – lack of improvement within 48 hours (increased symptoms); - general deterioration of condition.

Treatment: Due to the fact that diarrhea is a manifestation of the underlying disease, nosological diagnosis is required for adequate pathogenetic and etiological treatment. After completing the examination, which may take 1–2 weeks, and determining the final diagnosis, therapy for the underlying disease is carried out.

Etiotropic (specific) therapy involves the prescription of antimicrobial agents. Antibacterial therapy is prescribed for typhoid fever and paratyphoid fever, dysentery, pseudomembranous colitis, severe traveler's diarrhea, campylobacteriosis (severe enterocolitis with bloody diarrhea and sepsis). Antimicrobial therapy is indicated for sexually transmitted intestinal infections (gonococcal proctitis, herpes, syphilis, amebiasis, chlamydial proctitis and lymphogranuloma venereum).

Pathogenetic treatment is carried out for diarrhea caused by hormonally active tumors when their radical removal is impossible, as well as for inflammatory bowel diseases (ulcerative colitis, Crohn's disease). For the treatment of inflammatory bowel diseases, 5-aminosalicylic acid drugs (mesalazine, sulfasalazine), glucocorticosteroid drugs (prednisolone, budesonide), cytostatics (azathioprine, methotrexate, 6-mercaptopurine) and tumor necrotizing factor-α blockers (infliximab) are prescribed. For the treatment of diarrhea associated with overproduction of a number of hormones by hormonally active tumors (gastrinoma, VIPoma, carcinoid syndrome, etc.), the drug of choice is somatostatin - octreotide 50-250 mcg 3 times / day subcutaneously. Currently, radionuclide therapy with octreotide (111In-DTPA-D-Phe1), a combination of octreotide with interferon, is used to

World Bulletin of Public Health (WBPH)
Available Online at: https://www.scholarexpress.net
Volume-26, September 2023
ISSN: 2749-3644

treat neuroendocrine tumors (apudomas). For the treatment of malignant apudoms, chemotherapy is prescribed: streptozocin, epirubicin, doxorubicin, chlorosotocin, fluorouracil.

Prevention. Basic measures to prevent diarrhea include the following: access to safe drinking water, improved sanitation, hand washing with soap, and exclusive breastfeeding for the first 6 months. life, proper personal and food hygiene, health education regarding the spread of infections, vaccination against rotavirus infection.

LITERATURE

1. World Health Organization (WHO). World Health statistics 2008 Geneva. WHO, 2008. [Electronic resource] Access mode ht tp://www.who.intwhososwhostat 2008 enindex.html.
2. Fischer T.K., Viboud C., Parashar U., Malek M., Steiner C., Glass R. et al. Hospitalizations and deaths from diarrhea and rotavirus among children <5 years of age in the United States, 1993–2003 // J Infect Dis. 2007. Vol. 195. R. 1117–1125.
3. Payne D.C., Staat M.A., Edwards K.M., Szilagyi P.G., Gentsch J.R., Stockman L.J. et al. Active, population-based surveillance for severe rotavirus gastroenteritis in children in the United States // Pediatr. 2008. Vol. 122. R. 1235–1243.
4. Treatment of diarrhea. A textbook for doctors and other categories of senior health workers. WHO, 2006.
5. Soonawala D., Vlot J., Visser L. Inconvenience due to travelers' diarrhea: a prospective follow-up study // BMC Infect Dis. 2011. Vol. 11. R. 322–332.
6. Bandres J., Mathewson J., Ericsson C., Dupont H.L. Trimethoprim/sulfamethoxazole remains active against enterotoxigenic Escherichia coli and Shigella species in Guadelajara, Mexico // Am J Med Sci. 1992. Vol. 303. R. 289–291.
7. Johnson P.C., Ericsson C.D., Morgan D.R., Dupont H.L., Cabada F.J. Lack of emergence of resistant fecal ora during successful prophylaxis of traveler's diarrhea nor oxacin // Antimicrob Agents Chemother. 1986. Vol. 30. R. 671–674.
8. Alborzi A., Aelami M.H., Astaneh B., Pourabbas B., Farshad S., Kalani M., Nasiri J., Rashidi M. Is Escherichia coli O157:H7 a common pathogen in children with bloody diarrhea in Shiraz, Iran ? // Turk J Pediatr. 2008 Jul-Aug. Vol. 50 (4). R. 349–353.
9. Diarrhoea Treatment Guidelines (including new recommendations for the use of ORS and zinc supplementation) for Clinic-Based Healthcare Workers. MOST, WHO, UNICEF, IZiNCG. 2005 (http://www.who.int/child-adolescent-health/Emergencies/ Diarrhoea_guidelines.pdf).