

THE MAIN FACTORS IN THE ORIGIN OF DIARRHEA DISEASE

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Annotation: Diarrhea, abnormally swift passage of waste material through the large intestine, with consequent discharge of loose feces from the anus. Diarrhea may be accompanied by cramping. The disorder has a wide range of causes. It may, for example, result from bacterial or viral infection; from dysentery, either amoebic or bacillary; from impaired absorption of nutrients; from eating coarse or highly seasoned foods or drinking large quantities of alcoholic beverages; from poisons such as arsenic or mercury bichloride; or from drugs administered to reduce high blood pressure. Excessive amounts of thyroid hormones, parathyroid hormone deficiencies, irritable bowel syndrome, and uremia (an excess of nitrogenous wastes in the blood) all may cause diarrhea. Most cases of diarrhea are not serious and do not require treatment; dehydration can be prevented by drinking plenty of clear liquids. Diarrhea caused by an infection can often be treated with antibiotics.

Key words: Diarrhea, Escherichia coli, uremia, parathyroid hormone deficiencies.

Acute diarrhea can result from food poisoning, laxatives, alcohol, and some antacids. Usually it is caused by an acute infection with bacteria such as Escherichia coli, Salmonella, and Staphylococcus aureus. These agents can enter the body on food, in water, or when contaminated objects (e.g., a teething ring) are put into the mouth. In infants, acute diarrhea is usually self-limiting, and treatment consists primarily of preventing dehydration. Traveler's diarrhea affects up to half of those traveling to developing areas of the world. Preventive measures include chewing two tablets of bismuth subsalicylate (Pepto-Bismol) four times a day, drinking only bottled water or other bottled or canned beverages, and eating only fruits that may be peeled, canned products, and restaurant food that is thoroughly cooked. Avoiding dairy products, raw seafood and vegetables, and food served at room temperature also limits exposure. Severe cases require antibiotic therapy.

The symptoms of dehydration depend in part on the cause and in part on whether there is associated salt deprivation as well. When loss of water is disproportionately greater than loss of electrolytes (salt), the osmotic pressure of the extracellular fluids becomes higher than in the cells. Since water passes from a region of lower to a region of higher osmotic pressure, water flows out of the cells into the extracellular fluid, tending to lower its osmotic pressure and increase its volume toward normal. As a result of the flow of water out of the cells, they become dehydrated. This results in the thirst that always accompanies "pure" water depletion.

In those diseases in which there is loss of salt in excess of water loss, the decreased concentration of sodium in the extracellular fluid and in the blood serum results in decreased osmotic pressure, and water therefore enters the cells to equalize the osmotic pressure. Thus there is extracellular dehydration and intercellular hydration—and no thirst.

Water deprivation produces distinctive symptoms in humans. Weight loss, amounting to two to three pounds per day, occurs. Thirst is the most prominent symptom, with the dryness of mouth, decreased production of saliva, and impaired swallowing that accompany it. It is probable that thirst is the result of this subsequent intracellular dehydration and increased intracellular osmotic

pressure. Experimentally, thirst can be produced when the cells have lost about 1 percent of their intracellular water.

As dehydration progresses, the tissues tend to shrink, the skin becomes dry and wrinkled, and the eyes become sunken and the eyeballs soft. Fever develops, possibly from mild to marked, as dehydration progresses. Dehydration itself probably affects the temperature regulatory centres in the brain. As dehydration and salt loss progress, however, the plasma volume and heart output decrease, with a consequent decrease in blood supply to the skin. Sweating decreases and may stop completely, and the main avenue for heat loss is closed. The body temperature may then rise precipitously. There are marked changes in the volume of the extracellular and intracellular fluids, but the blood plasma volume changes the last and the least. The plasma volume is maintained more or less constant at the expense of the tissue fluids. If, however, the plasma volume does fall, the output of the heart also falls, and the pulse rate climbs, all of which indicates a dangerous physical state.

The renal (kidney) changes that occur in humans during prolonged water depletion similarly tend to maintain a normal balance. If water deprivation continues and the plasma volume falls, however, the output of urine will be drastically reduced. As long as urine output of more than 30 millilitres (1 ounce) per hour is maintained, the kidney can excrete nitrogenous and nonnitrogenous solids with maximum efficiency. Once the urine flow is decreased below this level, the kidney is unable to function efficiently, the substances are retained in the body, and their concentration in the blood rises.

The final result of prolonged dehydration is now apparent. The normal distribution of salt and water in the body is destroyed, the plasma volume decreases, and the blood viscosity increases. As a result of these changes renal function is impaired, the urinary output falls, and waste products accumulate. Far more life-threatening, however, is decreased loss of moisture from the skin, with the subsequent rise in temperature, and the fall in cardiac output with the attendant irreversible shock.

Once renal failure occurs, about 8 percent of the total body water has been lost (4 litres [about 4.25 quarts]). When 5 to 10 litres (about 5.25 to 10.5 quarts) of body water have been lost, a person is acutely and severely ill, with contracted plasma volume, increased concentration and viscosity of the blood, renal failure and excessive urea in the blood, and falling blood pressure. In a previously healthy adult, death follows the loss of 12 to 15 litres (about 12.5 to 15.8 quarts) of body water. In the very young, the very old, or the debilitated, death occurs at a lower level of dehydration.

The treatment of any form of dehydration depends not only on restoring the depleted water but also on reestablishing normal levels of body electrolytes and limiting the production of nitrogenous waste products. Before any of these therapeutic measures can be applied, however, the initiating cause must be removed. The sailor or the desert traveler must be rescued, the vomiting infant must be cured, or the underlying disease must be treated. Then, after accurate biochemical determinations of the levels of various electrolytes and other blood components have been made and the plasma volume has been measured, the physician may give measured quantities of the appropriate mixtures of salt and water. Given the right amounts of salt and water, the human body will gradually restore the normal relationships between the cells, the extracellular fluid, and the plasma volume. That done, the complicated functions of the kidney

will clear the circulating blood of the retained waste products, and the body will have restored its own normal balance.

Literature:

1. Mukhamedova, M., & Arnopolskaya, D. (2013). The Nitric Oxide System in Patients with Chronic Heart Failure. *International Journal of Biomedicine*, 3(3), 180-183.
2. Alyavi, B., Mukhamedova, M., & Arnopolskaya, D. (2013). The Effects of Torasemide on Patients with Chronic Heart Failure. *International Journal of Biomedicine*, 3(1), 20-22.
3. Тешаев, З. О., Абдурахманова, Н. Ф., & Мухамедова, М. Г. (2018). ХРОНИЧЕСКАЯ СЕРДЕЧНАЯ НЕДОСТАТОЧНОСТЬ И АСПЕКТЫ ЕЕ ЛЕЧЕНИЯ. In *Научный поиск в современном мире* (pp. 34-35).
4. Фозилов, Х. Г., Шек, А. Б., Бекметова, Ф. М., Алиева, Р. Б., Мухамедова, М. Г., Муллабаева, Г. У., ... & Хотамова, М. Н. (2021). Особенности деформационных свойств левого желудочка у больных с поражением коронарных артерий. *Клиническая и экспериментальная хирургия*, 9(3), 118-124.
5. Nasirova, G. A., & Mukhamedova, M. G. (2023). Chronic heart failure and COVID-19.
6. Мухамедова, М. Г. (2023). Распространенность Электрокардиографических Предикторов Внезапной Смерти У Здоровых Мужчин Призывного Возраста. *Central Asian Journal of Medical and Natural Science*, 4(3), 1172-1180.
7. Mukhamedova, M., Orziev, D. Z., Uzokov, J. K., & Abdullaev, A. X. (2023). Optimization of antiplatelet therapy in patients with coronary artery disease and type 2 diabetes mellitus after percutaneous coronary interventions. *European Journal of Cardiovascular Nursing*, 22(Supplement_1), zvad064-111.
8. Мухамедова, М. Г., & Арнопольская, Д. И. (2016). Эффекты петлевых диуретиков в базисной терапии хронической сердечной недостаточности. *Журнал сердечная недостаточность*, 17(1), 34-40.
9. Арнопольская, Д. И., & Мухамедова, М. Г. (2019). Коррекция систолической дисфункции миокарда, развившейся на фоне противоонкологической терапии. *Research'n Practical Medicine Journal*, 6(Спецвыпуск), 49-49.
10. Мухамедова, М. Г., Куртиева, Ш. А., & Назарова, Ж. А. (2020). СИНДРОМ ФУНКЦИОНАЛЬНОЙ КАРДИОПАТИИ У СОВРЕМЕННЫХ ПОДРОСТКОВ. In *П84 Профилактическая медицина-2020: сборник научных трудов Все-российской научно-практической конференции с международным участием. 18–19 ноября 2020 года/под ред. АВ Мельцера, ИШ Якубовой. Ч. 2.—СПб.: Изд-во СЗГМУ им. ИИ Мечникова, 2020.—304 с. (р. 105).*
11. Курбанов, А. А., Нурматов, Ж. Т., Халилова, Ш. И., Рашидова, Р. К., & Абдуллаева, А. О. (2019). Процесс очистки минеральных пород от примесей. *Международный академический вестник*, (5), 125-127.
12. Курбанов, А. А., Нурматов, Ж. Т., Рашидова, Р. К., Умрзакова, Ш. У., & Абдуллаева, А. О. (2019). ФОРМИРОВАНИЯ ЖИДКОГО БАЗАЛЬТА И ЕГО СТРУКТУРНЫЕ ОСОБЕННОСТИ. *Международный академический вестник*, (5), 123-125.
13. Рашидова, Р. К., Ахмедович, К. А., Алиев, Т., Джиянов, А. Б., Турдиева, О. Д., & Нурматов, Д. Т. (2020). Термическая обработка и изменение собственных показателей базальтов.
14. Nurmatov, J. T., Kurbanov, A. A., & Rashidova, R. K. (2019). Comparative Analysis of the Physical and Chemical Properties of Uzbekistan's Basalts and Ways of Solutions to the Problems of Choice of Raw Processing Directions. *Land Science*, 1(1), p59-p59.

15. Nurmatov, J. T., Kurbanov, A. A., & Rashidova, R. K. (2019). Comparative Analysis of the Physical and Chemical Properties of Uzbekistan's Basalts and Ways of Solutions to the Problems of Choice of Raw Processing Directions. *Land Science*, 1(1), p59-p59.
16. Abdurakhmanov, S. A., Rashidova, R., Mamatkarimova, B., & Sattarov, L. K. (2015). About basalt production and ways to improve basalt product quality. *RMZ-materials and geoenvironment*, 62(2), 133-139.
17. Nazarov, S., Razzokov, K., Shirinov, G., Niyozov, E., Rashidova, R., Rasulov, M., & Ganiev, B. (2023). Investigation of thermal properties and composition on basalts of the Aydarkul deposit by methods DTA/DTG and X-ray diffraction. In *E3S Web of Conferences* (Vol. 389, p. 01023). EDP Sciences.
18. Khasan, R., Sayfulla, N., Ra'no, R., & Mirzo, R. (2023). PHYSICO-CHEMICAL INVESTIGATIONS OF THE COMPOSITION OF BASALT OF THE AYDARKUL DEPOSIT. *Spectrum Journal of Innovation, Reforms and Development*, 13, 104-108.
19. Камолов, Б., Курбанов, А., Сатторов, Л., & Рашидова, Р. (2023). ОСОБЕННОСТИ ФИЛЬТРАЦИИ БАЗАЛЬТОВЫМ ФИЛЬТРОМ ПРОМЫШЛЕННЫХ ГАЗОВ ОТ ПЫЛИ. *Innovatsion texnologiyalar*, 49(01), 38-43.