FUNCTIONS OF BLOOD IN THE ORGANISM

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Abstract: *Blood is a liquid connective tissue that forms the internal environment of the body with lymph tissue fluid. The chemical composition of blood is very complex, it contains dissolved organic and inorganic substances that perform many different functions. One of its main features is to maintain the relative constancy of the composition of the organism. In a healthy person, random changes in blood composition are brought to relative constancy by neurohumoral control. However, in pathological cases, this mechanism may not be able to maintain the normal state, and in this case, the amount of substances in it changes to the direction of decrease or increase. In general, blood composition responds to various pathological conditions of the body by changing its composition to a certain extent. Therefore, it is important to analyze blood composition in medical practice.*

Keywords: *Reninangiothecin, suspension, kalloid, reticuloendothelial*

Blood is the liquid part of the connective tissue, which forms the internal environment with the lymph tissue fluid in the human body, consisting of various inorganic and organic substances. The function of blood in the body is different, it participates in protection, transport, trophic, breathing, maintenance of body temperature, excretory, maintenance of water balance in tissues, humoral control. Blood retains its suspension, colloidal and electrolytic properties, which depends on its content of cations and anions. Random changes in blood composition of a healthy person are regulated by nervous and humoral pathways. In pathological processes, due to a violation of normal maintenance of these processes, the amount of substances in its content decreases, increases, or changes in its composition are observed. Therefore, the analysis of blood loss is of particular importance in medical practice. Proteins in the blood plasma make up 6.5-8.5% of the dry mass and are synthesized in the liver and reticuloendothelial systems. It is mainly divided into three groups: albumin, globulin and fibrinogen.

Blood plasma proteins perform several unique functions

-Maintaining blood oncotic pressure, blood volume constant

- Participating in blood clotting, ensuring its viscosity;

- Maintaining pH constancy

-Transport of substances such as cholesterol, ketone bodies, fat-soluble vitamins, mannose, bilirubin

- In providing immunity processes;

- Reserve of amino acids

As a result of the body losing too much water in cases such as diarrhea and vomiting, as well as in some infectious diseases, the synthesis of g-globulin increases, and the amount of "myeloma proteins" in myeloma is increased. increase is observed. This causes hyperprotoinemia in the body.

Hypoprotoinemia is caused by a decrease in the amount of protein in the blood plasma, especially the decrease in albumin protein. Kidney disease - in nephrosis, a large amount of albumin is released through the kidney, and in liver diseases, albumin synthesis decreases.

In most cases, the concentration of blood plasma proteins remains unchanged, but in diseases, changes in the amount of protein fractions are observed. This condition in the body is called dysprotoinemia.

Albumin makes up more than half of all proteins in blood plasma, its concentration is 40-50 g/l. The amino acid molecule in albumin contains dicarboxyl groups, and its negative charge is equal to 18. For this reason, albumin keeps Na+ cations and maintains the osmotic pressure of the blood.

When the human body is injured or severely burned, the permeability of capillary blood vessels increases, and large amounts of water, Na+ cations, and albumin are released into the intercellular fluid. Together with the intercellular fluid, the relative amount of blood changes, blood volume and blood pressure decrease, bringing the body to a state of clinical shock.

In heart diseases, thromboses, and diseases related to vein dilatation, the release of albumin into the intercellular space increases due to the slowing down of blood circulation. Since this process is slow, the blood volume is actually caused by the reninangiothecin-aldosterone system. Due to the activity of this system, thirst occurs in the human body, but the received water leaves the blood and enters the intercellular space, and swellings appear.

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