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GASTRO-INTESTINAL BLEEDING AND COMPENSATORY CAPABILITIES OF THE HUMAN ORGANISM

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It is known that blood is not just a transport medium that combines various organs and tissues into a single organism. In addition to transporting gases, bioactive substances, which are quanta of information and control, the blood performs many compensatory functions, provides immune protection and more. Like all organs and systems of the body, blood is genetically specific, its cellular and biochemical composition is constantly self-healing. Therefore, the blood is the same "native" and irreplaceable foreign body system of the body, as well as all its other systems and organs. Blood, like other vital organs and systems, is multifunctional. Because of it during its damage, reduction of its volume there can be no isolated damage of any one of functions of blood. Thus, the artificial normalization of only the gas transport function of the blood can not be compared with the full compensation of all its functions.

Like other body systems, blood has its own mechanisms of autocompensation, as well as compensatory mechanisms that are related to other systems. Damage or decrease in volume of blood if will not be compensated by its own mechanisms, leads to insufficiency of function of cardiovascular system, disturbance of a metabolism, etc., directed on compensation of blood loss. Primary reactions of an organism to acute blood loss depend both on speed with which the volume of blood decreases, and on volume of blood loss, and on an ascending condition of an organism.

The compensatory reactions arising in the conditions of autoregulation are intended to restore volume and quality of blood immediately. Compensatory mechanisms begin simultaneously in all functional systems of the body, starting with the blood system itself. The amount of reserves of compensatory capabilities of each organism in response to blood loss differs in individual features, which depend not only on the

previous functional state of systems and organs, but also on constitutionally determined and which should be taken into account when providing care.

In our work we tried to study the constitutionally determined compensatory capabilities of the body in response to blood loss due to gastrointestinal bleeding in 120 patients who were treated in the hospital "Dnieper Clinical Association of Ambulance" during 2018-2020. Among them were men 80 people, women - 40 people. The age of patients ranged from 17 to 83 years. The fact of bleeding was confirmed clinically and in the laboratory, the source - fibrogastroduodenoscopy. All patients after endoscopic removal of bleeding underwent conservative treatment according to the protocols to restore blood loss, including blood transfusions according to the indications. Among the causes of gastrointestinal bleeding gastric ulcer was 16 cases, duodenal ulcer - 80 cases, bleeding of unknown origin - 24 cases. The obtained data testified to the predominance of duodenal ulcer in the structure of the causes.

Analysis of the ratio of causes of gastrointestinal bleeding by sex showed that in men whose overall incidence of this pathology was 2 times greater than the incidence in women, duodenal ulcer was 50 cases (62.5%), gastrointestinal non-ulcer bleeding genesis was 18 cases (22.5%), gastric ulcer - 12 cases (15%). In women, the same trend persisted, but clearly prevailed duodenal ulcer, accounting for 30 cases (75%), gastrointestinal bleeding of non-ulcer origin - 6 (15%), gastric ulcer - 4 (10%).

Estimation of the number of cases of gastrointestinal bleeding among men and women showed that in women the number of cases has a gradual increase with age from 40 years with a maximum number at the age of 60 to 80 years. Among men, cases of gastrointestinal bleeding were noted in increased numbers in the age group from 21 to 30 years and from 41 to 80 years.

The frequency of gastrointestinal bleeding depending on the group and Rh-affiliation of the blood was as follows. Thus, in men, the risk group includes people with blood group O (I) Rh (+), O (I) Rh (-), A (II) Rh (+), A (II) Rh (-). In women - people with blood group O (I) Rh (+) and B (III) Rh (+). But it should be noted that it is impossible to clearly determine the dependence of the frequency of gastrointestinal bleeding on the Rh factor of the blood.

Compensatory reserves of blood loss recovery in patients with gastrointestinal bleeding were analyzed by the rate of recovery of the main indicators for calculating the severity of blood loss and qualitative changes in blood cell composition. Her cases of duodenal ulcer and non-ulcer bleeding were also analyzed. Thus, the recovery period of the main indicators in men with I degree of severity of blood loss lagged behind that in women by an average of 30%, with II degree of severity ahead by 19%, and with III degree of severity - again lagged behind by 19%. Among patients with gastrointestinal bleeding of non-ulcer etiology, this figure in men lagged in the range from 41 to 45% for all degrees of severity of blood loss.

Qualitative assessment of blood depending on the severity of blood loss and age of patients showed that signs of "aging" of cell composition and a decrease in the number of young and immature forms of red and white sprouts decreased significantly with age in both sexes and virtually disappeared after 60 years of age. indicates a decrease in the mobilization capacity of the bone marrow in response to blood loss.

Conclusions. Gastrointestinal bleeding causes deviations in the patient's homeostasis and causes a certain tension of compensatory mechanisms, the severity of which depends on the severity of blood loss. Constitutionally determined features of immunity affect the course of compensatory mechanisms, and it is possible to identify risk groups with a reduced level of compensation. In men, the risk group includes people with blood group O (I) Rh (+), O (I) Rh (-), A (II) Rh (+), A (II) Rh (-). In women - people with blood group O (I) Rh (+) and B (III) Rh (+). However, it should be noted that it is not possible to clearly determine the dependence of the frequency of gastrointestinal bleeding on blood Rh factor. There are gender differences in the rate of recovery of the main indicators of impaired blood composition (in men it is slower than in women). Compensatory reserves of bone marrow after the age of 60 are significantly reduced and can not quickly compensate for the cellular composition of the blood due to young and immature forms during the first 3-4 days.

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