INTEGRAL INDICATOR OF DISSEMINATED INTRAVASCULAR COAGULATION DURING BURNS

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Sepsis, developing in the early stages of burn disease, is characterized by a lightning-fast, extremely severe course, difficulty in diagnosis, and high mortality. The state of the hemostasis system and blood biochemical metabolites were studied in 100 patients with severe burns, of whom 33 had burns complicated by sepsis, and 67 had no such complications.

It has been shown that the development of "early" sepsis in severely burned patients occurs against a backdrop of increased hemostasis imbalance: increased coagulation potential and a sharp decrease in anticoagulant mechanisms of the blood. Hemostasiological disorders were accompanied by increased renal and hepatic functional insufficiency. Hemostasis system indicators can be included in the comprehensive examination of patients, targeted prediction of the development, identification, and assessment of the severity of "early" sepsis in severely burned patients.

The hemostasis system is one of the main components of the sepsis pathogenesis, which responds to the development of generalized infection with disseminated intravascular coagulation (DVS) syndrome and, in combination with the systemic inflammatory response syndrome, leads to multiple organ

failure [1, 2, 3]. The clinical picture of septic DVS syndrome is often masked by other complications of sepsis, in particular, disorders from the kidneys, lungs, liver, and brain.

In cases of burns, a primary septic variant of DVS syndrome develops, associated with the destruction of organs and tissues, which can transform into infectious-toxic and infectious-septic DVS syndrome. The purpose of this study was to study the role of hemostasis system disorders in the development of sepsis in the acute period of burn disease in patients with severe thermal trauma.

Based on the analysis of laboratory blood parameters, we have proposed a developed integral indicator of disseminated intravascular coagulation (DICBC), which allows not only to identify this complication but also to quantitatively characterize the depth of the pathological process. The integral indicator is calculated as the sum of points. DVTIP under normal conditions is 6.2 units and lower. In the latent (mild) form of DIC syndrome, DICI varies between 6.3 and 10.0 units. The values of the indicator from 10.1 to 14.6 indicate moderate DIC syndrome (subacute form), and above 14.7 - severe (acute) DIC syndrome.

Results and Discussion. The results obtained in this study indicate that severe burns during periods of shock and toxemia develop profound disorders in the hemostasis system. They are characterized by a high level of thrombinemia, a decrease in the activity of endogenous anticoagulants, a pronounced depression of XIIa-dependent fibrinolysis, which are present against the background of hyperfibrinogenemia, moderate thrombocytopenia, and fragmentation of erythrocytes.

Disorders arise immediately after burns, correlate with the severity of the injury, impairments in the functional state of the kidneys and liver, and

correspond to the acute and subacute forms of DVS syndrome. Hemostasiological disorders are dynamic in nature, and their direction depends on the characteristics of the pathological process.

One of the factors determining the form (hemorrhagic or microthrombotic) of DIC syndrome is the state of the mononuclear phagocyte system. Early suppression and/or damage to this system leads to DVS syndrome not reaching its terminal stage (hemorrhagic) but concluding with multiple organ failure due to a total blockage of parenchymal organ perfusion.

Conclusions: The development of a generalized infection in the acute period of burn disease occurs against a background of profound disorders in the hemostasis system corresponding to the acute form of DIC syndrome.

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