INFLUENCE OF SODIUM DESOXYRIBONUCLEATE ON ANTI-INFECTIOUS PROTECTION AND BLOODING IN PATIENTS WITH POLYTRAUMA (RANDOMIZED PROSPECTIVE, DOUBLE-BLIND, PLACEBO-CONTROLLED STUDY)

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Аbstract. The aim of the study was to study the effect of sodium deoxyribonucleate on anti-infection resistance and blooding in patients with polytrauma. Materials and methods. A single-center study of the effectiveness of sodium deoxyribonucleate, approved by the local ethics committee (protocol No. 4 05/18/2016), in 54 patients with polytrauma was conducted. Main group: 27 people, age 39(29;51) years, severity of injury ISS 26(22;34). Comparison group: 27 people, age 40(26;53), ISS 25 (20;29). Randomization: patients with a random even number were injected with 5 ml of the contents of vials of one series (even), with an odd number - of another series (odd) intramuscularly daily from the first to 10 days after the injury. Before the drug's injection, on the 8th, 15th days after the injury, the blood was examined: leukocytes, erythrocytes, hemoglobin, total protein, blood IL-6, CRP; CD117+ and CD34+mononuclear cells, CD14+monocytes, CD14+granulocytes, HLA-DR+mononuclear cells, defensin+granulocytes. Results. On the 8th day in patients of the main group compared with the comparison group increased: lymphocytes, monocytes, CD117+ and CD34+. In patients of both groups, a similar decrease serum IL-6 and CRP was observed. Length of hospitalization in the main group - 32.8 days, in the comparison group - 39.6, the number of complications in the main group 21, in the comparison group 39. In the main group the average number of complications in one patient was 1.8 times less than in the comparison group. With the development of complications the duration of anemia and hypoproteinemia in the main group was less than in the comparison group: 2.5 and 3.5 respectively.

Conclusions. The use of sodium deoxyribonucleate in polytrauma increased the migration of blood precursors to the bloodstream, increased anti-infection properties of leukocytes, reduced duration of anemia and hypoproteinemia, and reduced the number of complications and the length of hospitalization.

*Key words: polytrauma, anti-infection protection, hematopoiesis, hypoproteinemia, complications, sodium deoxyribonucleate.*