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Violation of synthetase activity in patients with toxic epidermal necrolysis depends on the area of skin infection.

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Introduction & Objectives: Toxic epidermal necrolysis (TEN) is one of the most severe reactions of the body to the action of various xenobiotics with necrosis of the epidermis, mucous membranes and damage to internal organs, which is accompanied by profound disorders of hemodynamics and homeostasis, often leading to death. A wide range of bioregulatory effects of nitric oxide, in particular, participation in the development and course of allergic inflammation (cytotoxic, immunocomplex reactions), suggest the participation of nitric oxide in the pathogenesis of TEN.

Materials & Methods: Under our observation, there were 9 patients on TEN with different areas of skin damage. The study of the nitrogen oxide system was carried out spectrophotometrically. The area of the affected skin surface was determined according to the "nine" rule. In patients who recovered (6 cases), it was 39.85±4.23% of the body surface, and in fatal cases (3) - 77.37±1.20%, that is, almost twice as much (in 1.9 r.) is greater.

Results: The indicators of the nitric oxide system in patients with TEN changed depending on the area of skin damage. In patients with involvement of more than 50% of the surface during the flare-up period, there was a 1.95-fold decrease in nitrate anion content, a 2.62-fold increase in nitrite anion, and a 4.19-fold increase in constitutive synthetase compared to similar patients in the initial period of the disease, activity of inducible synthetase increased, especially, sharply in the midst of TEN - by 21.7 times.

Conclusion: The obtained results indicate the need to correct increased iNOS activity and hyperproduction of NO in patients with TEN with corticosteroids.