

**Abstract N°: 899****Title: Certain aspects of the nitrogen oxide role in the Stevens-Johnson syndrome course**

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Introduction. Stevens–Johnson syndrome (SJS), which is a drug-induced disease in 50% of cases, is increasingly common in everyday practice. A determining role in the pathogenesis of pathological conditions (inflammation, shocks of various genesis, etc.) plays a unique extra- and intracellular messenger, i. e., the nitrogen oxide (NO) system acts as an endogenous regulator in various dermatoses. In physiological concentrations, NO interacting with reactive oxygen species exhibits antioxidant properties, in case of metabolic disorders associated with the NO accumulation in tissues, and said reactions promote highly toxic substances adversely affecting the disease course. The NO biological action wide scope determines the interest in studying the NO-NOS system (nitrate ions (NO₃-), nitrite ions (NO₂-)) in patients with SJS, which is accompanied by the involvement of all body systems and defines the disease prognosis.

Materials and methods. We have studied the NO system using biochemical methods in 9 SJS patients, 4 of whom were mild and moderately severe, while 3 had a severe course of the disease. A significant increase in nitrite and nitrate anions was registered in mild and moderate cases of SJS, whereas a greater level of nitrate anions was observed in cases of severe dermatosis when compared to those in healthy subjects. The comparison of parameters in patients with varied degrees of severity of the process revealed a significant increase in the content of nitrite anions and a decrease in nitrate anions in patients having a mild and moderate degree of severity as compared to those with a severe SJS course. The increased content of nitrogen oxide, namely its anions at different SJS degrees, is the result of the impact of endo- and exotoxins, inflammatory factors that is activators of free radical oxidation.

Results. Studies of the nitrogen oxide system suggest a pathogenetic role of hyper- and hypo-production of NO anions, which is a causative factor in SJS patients, as well as a necessity for its correction.

Discussion. It is advisable to use corticosteroid medications for the normalization of NOS activity and NO hyper-production as part of a complex therapy for SJS patients.

