INFLUENCE OF SORBILACT - L-ARGINIC COMPLEX ON THE LEVEL OF TOXEMIA AND DETOXIFICATION FUNCTION IN CASE OF ENDOGENOUS INTOXICATION SYNDROME IN THE PERIOD OF DEVELOPMENT OF THE EARLY TOXIC AUTOAGRESION

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Purulent-septic complications are always accompanied by the development of endogenous intoxication syndrome (EIS). In this case, the kidneys are always involved in pathophysiological processes, since they are the main organ of excretion. The issue of treatment of EIS of purulent-septic genesis needs further development in light of the use of the adjuvant-basic concept of the combination of preparations of polyhydric alcohols and L-arginine and their effects on the detoxification function of the kidneys needs to be established.

The objective of the work was to determine the effect of sorbilact-L-arginine complex on the level of toxemia and the detoxification function of the kidneys in case of endogenous intoxication syndrome in the period of development of early toxic autoaggression.

117 patients were included in the research, which was distributed in the following groups: the first group (I, control) consisted of 31 patients with systemic inflammatory response syndrome (SIRS); the second group (II) consisted of 27 patients with EIS who were treated according to Surviving Sepsis Campaign 2016 (standard therapy); the third group (III) consisted of 29 patients with EIS, who received sorbilact in addition to standard therapy; the fourth group (IV) included 30 patients with SEI who received standard therapy as well as sorbilact and L-arginine. Molecular Weight Proteins (LMWP) concentration in blood and urine were determined using a modified method.

The EIS of purulent-septic genesis significantly altered the balance of the toxin formation / detoxification. Manifest significant increase in the concentration of LMWP in plasma (178% in group II, p <0.05). Concentration of LMWP in urine was also significantly increased in relation to group I indices. An increase of the concentration of blood plasma LMWP resulted in an increase of the filtration fraction of LMP (by 59%, p <0.05).

Assignment of L-arginine on the basis of sorbilact and standard therapy activated sorbilact-based effects for the growth of renal excretion of toxins. It was manifested by an increase of LMWP excretion, an increase of the LMWP excreted fraction and a decrease of the LMWP relative remission compared with patients in Group III, and, especially, the LMWP clearance by 13% to patients who received sorbilact without L-arginine. The combination of L-arginine with sorbilact during the development of early auto-aggression did not significantly change other parameters, in particular the concentration of LMWP in plasma and urine, the LMWP filtration fraction and the intensity of LMWP excretion in 100 ml of GFR. Absolute reabsorption of LMWP in patients of IV group was 41.30 ± 1.02 unit / min. and statistically did not differ from the indicators of the second and the third groups. The LMW exemption rate of patients of IV group increased both in relation to the second and the third groups due to the L-arginine-potentiated action on the detoxification function of the kidneys.

Sorbilact-L-arginine complex in the case of acute kidney damage in the period of early secondary toxic autoaggression increases the excreted fractions of the components that form the involvement of kidneys in providing homeostasis to control numbers. The combination of other integrative indicators, in comparison with those in patients with systemic inflammatory response syndrome, in the case of the sorbilact-L-arginine complex prescription in the period of development of early toxic autoagresion continues to demand compensation. One of the mechanisms of renoprotection in combination with the use of sorbilact and L-arginine is the reduction of reabsorption of low mass proteins in the proximal parts of the nephrons.