molecules" in the blood. In 6 patients, progressive oliguria with the transition to anuria required an addition of more radical efferent methods of detoxification - hemodialysis with hemosorption and hemofiltration.

Thus, in the immediate postoperative period, the PS, unlike the HS and PP, does not reduce the total protein of the blood, which makes possible to use the PS in conditions of hypoproteinemia. PS compared with HS and PP causes a greater diuretic effect, which makes important to use it in case of oliguria and oligoanuria. In contrast to PP at PS, there is no need for the transfusion of large doses of donor plasma and other plasma-substituting solutions.

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STATE OF VOLUME-AND OSMOREGULATORY FUNCTION OF KIDNEYS IN PATIENTS WITH SEPSIS AND DIABETES MELLITUS

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The clinical course of diabetes mellitus confines the reserves of the mechanisms of functions, maintaining homeostasis, in particular, volume-and osmoregulatory function of kidneys, their compensatory abilities, especially under conditions of addition of actions of accessory unfavorable factors of systemic direction. One of such is endogenous toxemia of purulent-septic genesis.

The purpose of the work is to study the state of the volume-and osmoregulatory function of kidneys at diabetic mellitus, complicated by endogenous intoxication syndrome of purulent-septic genesis. The group under study consisted of patients with insulin-independent diabetes mellitus, complicated with endogenous intoxication syndrome of purulent-septic genesis (DMSEI). The patients were divided into 4 groups: group I and group II – control investigations SSIR, n=30; group III and IV – DMSEI (n=53). Patients of group II and group III were subjected to the research in the fragment of infusion therapy fulfilment with Ringer solution at a rate of 3ml/kg/year during three hours.

The starting indices of volume-and osmoregulatory functions of kidneys in patients with IIDM, complicated by endogenous intoxication syndrome of purulent-septic genesis (SEI PSG) are characterized by meanings, which affirm inhibition of the volume regulatory (according to Sodium clearance 11%, $p<0.05$) and activation of osmoregulatory (as to clearance of osmotic active substances 23%, $p<0.05$) of the kidney function. Volume increase of the extracellular space with Ringer solution activates volume-and osmoregulatory function of kidneys, respectively, in patients with SSIR 162±27,1% (Δ, $p<0.05$) and 138±48,3% (Δ, $p<0.05$), and at IIDM complicated with SEI PSG 260±47,8% (Δ, $p<0.05$) and 147±46, 9% (Δ, $p<0.05$).

Isotonic loadings with Ringer solution of a small volume initiate the same direction of indices'change of volume-and osmoregulatory functions of kidneys in patients with the syndrome of systemic inflammatory response and diabetic mellitus, complicated with the syndrome of ourulent-septic genesis and reveal dissotiation hyperreactivity of the volume regulatory function concerning osmoregulatory one.

Konovchuk V. M.

FEATURES OF SORBILACT-L-ARGININE-COMBINED ACTION ON THE KIDNEYS' VOLUMOREGULATORY FUNCTION OF PATIENTS WITH PURULENT-SEPTIC COMPLICATIONS

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Purulent-septic complications remain a pressing problem of clinical medicine. They cause endotoxicosis and multiple organ damage. Kidneys are the main homeostatic organ whose functions undergo intensive strain of various circumstances of multiple organ failure, especially in the event of an initiated toxic aggression. In this context, attention should be paid to the relevant regulatory framework of their functions, including volume-regulatory; consider the possibility of adjuvant-

strandard therapy for renoprotection and optimization of functional affiliation. Infusion therapy is the basis for treatment of purulent-septic complications and secondary toxic auto aggression. Among infusion solutions sufficiently promising are preparations of polyhydric alcohols, in particular sorbitol-based. It expands the prospects for using adjuvant therapy, in particular, the combination of solutions of polyhydric alcohols with L-arginine. However, the effect of combined use of sorbilact with L-arginine on renal function remains unknown

The purpose of the work is to investigate the effect of combined use of sorbilact and Larginine on the kidneys' volume-regulatory function of patients with endogenous intoxication syndrome (EIS) of purulent-septic origin in the period of stabilization of secondary toxic autoagression.

Indicators of kidney volume receptor function have been studied in patients of the following groups. The first group (I, control) consisted of 31 patients with systemic inflammatory response syndrome (SIRS). The second group (II) consisted of 22 patients with EIS who were treated according to Surviving Sepsis Campaign 2016 (standard therapy). The third group (II) consisited of 24 patients with EIS, who received sorbilact in addition to standard therapy. The fourth group (IV) included 21 patients with SEI who received standard therapy as well as Sorbilact and L-arginine. Sorbilact infusion to patients of III and IV groups was performed at a rate of 6-7 ml/kg body weight, intravenously dripping at a rate of 7-8 ml/min. 216 After the end of infusion of sorbilact, patients of IV group were infused with 4.2% solution of Larginine ("Tivortin" intravenous drip according to the instructions). Data was obtained and results gathered on the application of drugs in the period of stabilization of secondary toxic autoagresion (fourth day of drugs' application).

In the period of stabilization there is a restoration of the volume-regulatory function of the kidneys under standard therapy of endotoxicosis of purulent-septic genesis. The use of sorbilact with standard therapy activates the volume-regulatory function of the kidneys (in terms of sodium clearance by 31%, $p < 0,05$) in the period of stabilization of toxic autoaggression. The combination of sorbilact with L-arginine increases the activity of sodium clearance by 12% ($p < 0,05$) induced by sorbilact.

Thus, the investigated features of basic adjuvant therapy with L-arginine and sorbilact can be recommended for use in order to restore the volume-regulatory function of the kidneys in cases of endotoxicosis of purulent-septic genesis.

Nechytailo O.Y.

PATHOPHYSIOLOGY OF THE LOWER LIMBS CRITICAL ISCHEMIA IN PATIENTS WITH TYPE 2 DIABETES MELLITUS

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The worldwide prevalence of diabetes has continued to increase dramatically. The number of people with type 2 diabetes increases in every country in 80% of people with diabetes mellitus living in low- and middle-income countries. The poor controll of hyperglycemia lead to multiple, primarily vascular, complications that affect small vessels (microvascular), large vessels (macrovascular), or both. Diabetic lower limb ischemia often leads to limbnecrosis and increases the risk of infection which is difficult to treat in most patients. It may require amputation and may even become life-threatening in some untreated cases. It has been conservatively reported that, worldwide, a major amputation takes place every 30 seconds with over 2500 limbs lost per day. At least 60% of all nontraumatic lower extremity amputations are related to complications of diabetes.

The aim of the present study was to analyze the pathogenetic mechanisms of the lower limbs critical ischemia formation in subjects with diabetic foot syndrome (DFS) type 2 diabetes.

In total 87 patients with type 2 diabetes and DFS at the age of 43-82 years were investigated. The patients were subdivided in 2 groups – the first group with DFS without lower limbs critical ischemia (47 patients) and the second group consisted of 40 patients with lower limbs critical ischemia. Clinical and paraclinical investigations were done. Infrared thermometry of low limbs and sublingual biomicroscopy were done with digital devices. In the study we used simple clinical