NOVATEUR PUBLICATIONS
JournalNX- A Multidisciplinary Peer Reviewed Journal
ISSN No: 2581 - 4230
VOLUME 8, ISSUE 5, May. -2022

ON THE ISSUE OF EXTRACORPOREAL DETOXIFICATION IN THE TREATMENT OF OBSTETRIC SEPTIC COMPLICATIONS

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ABSTRACT:

Any critical condition is accompanied by the accumulation of toxic substances in greater or lesser quantities, which causes damage to cell membranes, disruption of intracellular metabolism, uncoupling of oxidation and phosphorylation in mitochondria, and, ultimately, leads to tissue hypoxia. In some cases, intoxication comes to the fore and begins to play a leading role in the pathogenesis of many systemic diseases, obstetric complications, and severe infections. Unfortunately, their prevalence is steadily growing, and mortality is consistently high. In this regard, the development of efferent methods of treatment in critical conditions has always been one of the priority areas in the research activities of many scientists in the Republic of Uzbekistan and abroad.

INTRODUCTION:

Our study is devoted to the correction of hypoxia in critical conditions, it clearly defined the concepts: “detoxification” should be understood as the removal of toxic substances from the body unchanged, “detoxification” refers to the destruction of toxic substances directly in the body to safer substances with subsequent their elimination by natural detoxification organs, primarily by the kidneys. Nevertheless, the uncertainty of the term “toxin” creates terminological chaos in scientific publications, as many concepts are used as synonyms: toxicosis (pregnant?), endotoxicosis, toxemia, even “endotoxication” is encountered. In our study, we used the calculation methods for determining intoxication: 1. According to the Garkavi Lymph / SYAN method, the allowable value is 0.3-0.5; 2. Dashtayants NII method = (monocytes + metamyelocytes + PU + neutrophils) / SYAN, where 0.05-0.1 is an acceptable value; 0.3-1.0 moderate severity; 1.0 and more severe intoxication; 3. shift index according to Yabuchinskiy ISL= (Eoz+Bazof+PYa+SJ)/(Lymph+Mon), index 1.94 is estimated as severe intoxication; 4. LII was evaluated according to the standard formula; 5.

Endogenous intoxication syndrome index ISEI = sum of plasma extinctions X sum of erythrocyte extinctions / sum of urine extinctions, where the controlled value is 3.8±0.3; subcompensated value 12.8±0.8 and decompensated endogenous intoxication 13.5±1.2 conventional units.

A prospective study was conducted in 27 postpartum women whose early puerperia was complicated by septic manifestations, patients with AS, who were treated in obstetric institutions in Bukhara and Tashkent. The control group (n=16 women, average age 34±5 years) consisted of relatively healthy volunteer donors whose blood and urine were examined for VNISMM according to the standard method. Main group: patients (n=27, mean age 28±6 years) diagnosed with postpartum period, sepsis. Sepsis was diagnosed based on the criteria of the Chicago ACCP/SCCM Conciliation Conference (R. Bone, 1992). Based on the obtained clinical and laboratory data, integral indices for assessing the functional state of the patient and organ dysfunctions were calculated: the APACHE II (W. Knaus et al., 1985) and SOFA (J. L. Vincent et al., 1999) scales. Results allow classifying patients of subgroup I with the presence of a focus of infection and signs of systemic inflammatory response syndrome according to the bone classification as patients with sepsis. Subgroup II (patients with signs of a systemic inflammatory response and multiple organ dysfunction - SOFA scale 6.0±1.2 points) can be classified as "severe sepsis". III subgroup with a decompensated variant of endogenous intoxication by the presence of clinical and laboratory signs of severe sepsis and a decrease in blood pressure less than 90 mm Hg. Art., resistant to infusion therapy - to the category of "septic shock".

Patients of subgroup I with AS and a compensated variant of the course of IS did not need active detoxification, since the excretory function of the kidneys was preserved throughout the intensive therapy. By intensifying traditional therapy with forced diuresis methods, it was possible to stop SEI and the systemic inflammatory response in 3-4 days. In subgroups II and III of patients with subcompensated and decompensated syndrome of endogenous intoxication, as a result of increased accumulation of VNiSMM in the body and a decrease in the efficiency of excretion with urine, there was a need for their additional elimination using extracorporeal detoxification methods. Thus, in subgroup II with a subcompensated variant of the course of SEI, for this purpose, high-volume filtration plasmapheresis was used with autoplasma exfusion on average 33+6 ml/kg, against the background of conventional therapy aimed at eliminating the source of infection, correcting homeostasis disorders.

The VCP was replenished with crystalloid and colloid solutions (derivatives of hydroxyethyl starch, fresh frozen plasma) in an average volume of 130 ± 20% of the removed plasma, focusing on systemic hemodynamics. When the ISEI increased to the initial values, the procedure was repeated. SEI compensation in this subgroup was observed on average after 3 days, and relief of the systemic inflammatory response after 7 days from the start of plasmapheresis. In 6 patients, where plasmapheresis was not used, endotoxicosis progressed, SEI passed into the stage of decompensation, clinical and laboratory manifestations of MOF increased. Therefore, in order to correct decompensated endogenous intoxication in patients of subgroup III, taking into account unstable hemodynamics, a gross deficit in the main parameters of homeostasis, prolonged low-flow veno-venous hemofiltration was used with a volume of predilutional replacement of 35+5 ml/kg/h on a hemoprocessor.

Fluid deficiency was determined by the initial degree of hydration of the patient and the tactics of infusion therapy, taking into account

diuresis. The first significant changes clinical and laboratory parameters and the general condition of the patient were obtained 12 hours after the start of the procedure. At the same time, all patients showed a regression of encephalopathy (the dynamics of the Glasgow scale from the initial 10.2±1.9 to 12.1±2.3 points), an increase in the rate of diuresis by 45±13.2% from the initial, systemic hemodynamic parameters stabilized from a significant decrease in the dosage of catecholamines. At the same time, I would like to note that such dynamics observed in complex therapy was of the nature of temporary stabilization and did not exclude the need for additional detoxification measures. So, in three patients there was a need for a second procedure after an average of 2 days after the end of the first. The presented results of the study show that the differentiated use of extracorporeal detoxification methods has a therapeutic effect, characterized by extracorporeal correction of homeostasis and detoxification in patients with AS and contributes to the relief of the systemic inflammatory response and SEI, which ultimately contributes to a decrease in mortality.

CONCLUSIONS:

1. Calculation of the endogenous intoxication syndrome index, which reflects the accumulation, distribution and elimination of endogenous toxic substances, makes it possible to determine the clinical and pathogenetic variant of the course of the endogenous intoxication syndrome.
2. The integral indicator - the index of the syndrome of endogenous intoxication determines a differentiated approach to the choice of extracorporeal detoxification methods in the complex treatment of sepsis: in the compensated variant of endogenous intoxication, forced diuresis is offered, in the subcompensated variant - high-volume filtration plasmapheresis, and in the decompensated variant - prolonged veno-venous hemofiltration.
3. The use of a differentiated approach to the choice of methods of extracorporeal detoxification in the complex therapy of obstetric sepsis contributes to a more rapid relief of endotoxicosis and, as a result, regression of MOF, systemic inflammatory response, as well as a decrease in mortality.