



THE VALUE OF COMPREHENSIVE NUTRITIONAL TREATMENT OF SEPSIS PATIENTS WITH DIABETES MELLITUS

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Article history:	Abstract:
Received: 11 th February 2023 Accepted: 11 th March 2023 Published: 22 th April 2023	In most cases, sepsis is caused by gramm-positive flora. Hower, in patients without hematogenous dissemination, gramm-negative microorganismis were microbio logically confirmed. Diagnosis of sepsis is a very difficult question. About 30% of sepsis cases remain without bacteriological confirmation. About 40-45% of sepsis cases are caused by staphylococci. Hower, 80% ceses of surgical infection is combined with an anaerobic infection. Surgical treatment of sepsis is considered to be the most relevant. Especially sepsis due to inflammatory diseases of soft tissues, treatment should begin with an urgent surgical intervention.

Keywords: sepsis, phlegmon, abscess, infusion.

INTRODUCTION. Despite the development of medical science, the problem of surgical infection remains a pressing issue. Sepsis is a response to various infections of bacterial, viral and fungal nature. The term sepsis was first used by Hippocrates 2000 years ago. The term refers to the pathological disintegration of tissue with putrefaction. In recent years, sepsis has begun to increase globally, (more than 50 million people per year) with a mortality rate of 5.3 million cases. According to our data, in diabetes mellitus, foci of sepsis were often purulent inflammatory diseases of the soft tissues, extremities, and perineum.

Treatment of sepsis developing against the background of purulent-necrotic processes in diabetes mellitus is one of the severe problems. In the body of such problems develop nutritional deficiencies. According to the literature, if patients lose 20% of their total weight after surgery, the mortality rate is 33%. In such patients, during providing adequate nutrition with parenteral nutritional components, postoperative mortality decreased by 7%. The main purpose of nutritional care in patients with sepsis is to restore the physiological need of macro- and micronutrients in the body.

PURPOSE OF THE STUDY: To determine the value of nutritional support in the complex treatment of sepsis in diabetes mellitus.

MATERIALS OF WORK. In the septic- septic department of Samarkand city medical association and on the clinical base of general surgery of Samarkand medical university were hospitalized 34 diabetic patients with various purulent inflammatory diseases complicated by sepsis. The patients' age varied from 30 to 72 years; 18 patients were of working age. There were 20 male and 14 female patients. Thus, acute paraproctitis (ischio-rectal and pelveo-rectal in 7 patients, perineal phlegmon and Fournier's disease with spreading to the anterior abdominal wall - in 5 patients, purulent-necrotic phlegmon of the foot - in 7 patients, commissural phlegmon with spreading to the forearm - in 2 patients, phlegmon in the thigh area complicated by anaerobic infection - in 5, deep postinjection abscesses of the buttock complicated by anaerobic phlegmon - in 5 and suppuration of postoperative wound with phlegmon of the anterior abdominal wall (after appendectomy, pinched ventral hernia) - in 3 patients. We divided patients into two groups for comparative study. The first group consisted of 15 patients with moderate severity of type 2 diabetes mellitus, in whom sepsis was detected. The second group consisted of 19 patients with severe form of diabetes mellitus with purulent-necrotic processes with complicated fasciitis, who were diagnosed with severe sepsis and septic shock. The causes of soft tissue infections were diabetic foot syndrome, phlegmon of the lower extremities, acute paraproctitis, postoperative abscesses. wound suppuration, postinjection abscesses.

In the general treatment of sepsis it is very important to pay attention to the infectious process in the area of the primary tissue injury, which is the cause of the inflammatory process. Of great importance is the size of the focus, the type of microflora, its pathogenicity and virulence, the presence of premorbid background of the patient, i.e. factors that directly affect the spread of reactions of the body. In the first group of patients who received infusion-transfusion treatment with antibiotics, the average duration of bed days was 25 ± 1 , and in the second group, where there was established intensive care parenteral with nutrition (Nutriplex 2-3 doses, plasma, enteral and nutritional support with transfusion of single plasma, red blood cell mass, immunocorrectors), average duration of bed days was 21 ± 1.5 days. In the second group during the treatment there was a rapid clearing of the wound from the necrotic tissue, restoration of all biochemical parameters (the number of erythrocytes, lymphocytes, hemoglobin, total protein, blood enzymes).

All our patients underwent prompt surgical treatment, that is, paraproctitis was opened with wide incisions, phlegmons of the femur, perineum and tibia with removal of necrotic tissues were cut open with long wide incisions. In the postoperative period a staged necrorectomy was performed.

RESULTS AND DISCUSSION. Sepsis often occurs in severe form of diabetes mellitus with purulent-necrotic phlegmon. The main cause of this process is not only impaired carbohydrate metabolism in diabetes mellitus, but also the metabolism of proteins and fats. Nowadays, it is scientifically approved that in case of nutritional deficiencies, in purulent-necrotic diseases, the body's protective function weakens and a severe complication of sepsis develops. In sepsis, due to impaired metabolic changes in the body, the natural way of nutrition completely can not provide the body's nutrient requirement. Given these findings, patients with sepsis need full support enteral and parenteral nutrition. The goal of infusion therapy in sepsis to ensure adequate blood circulation in the tissues of the body, this is achieved with the infusion of crystalloid and colloidal solutions.

Under conditions of sepsis the body's need for energy increases to 50-60 kcal/kg, for protein up to 2-3 g/kg per day, the average daily loss of nitrogen reaches up to 30-35 g/day. This equals the equivalent of 185-200 g of protein. If this process is not recovered in time, then daily loss of 25 g of muscle mass for nitrogen recovery. In the body with unrecovered nitrogen, a severe metabolic disorder develops. Therefore, in daily practice to restore microcirculation in the tissues were widely used infusions and nutride, complete colloid-crystalloid and nutride mixtures. In sepsis the minimum content of hemoglobin in the blood should not be lower than 70-80 g/l. Given these data, we used more transfusions and blood components. It should be noted the use of Nutriflex 3-4 doses per course of treatment in combination with other infusion drugs got good results.

For immunocorrection in severe sepsis and septic shock we used intravenous injection of immunoglobulins at a dose of 3 ml/kg/day for 3-5 days. Patients diagnosed with severe sepsis and septic shock were admitted to the intensive care unit or to the intensive care unit. The main task of intensive therapy is timely improvement of oxygen transport to the cells. All of the above categories of patients received intensive care in the intensive care unit. Out of 34 patients with type 2 diabetes mellitus with severe sepsis and septic shock, which was complicated by multiple organ failure, 9 patients died.

CONCLUSIONS: Purulent-necrotic processes in diabetes mellitus are a pressing problem often leading to sepsis. Sepsis is a pathological condition requiring a multifactorial, multicomponent approach to treatment. Interaction of specialists (diabetologist, hematologists, vascular surgeons) their joint work, the use of modern methods of treatment, in particular, infusion therapy (nutritional support) and active surgical intervention can save the lives of patients. Early comprehensive and adequate surgical treatment with nutriplex is the best way to treat sepsis in diabetes mellitus.

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