In pathogenesis of peritonitis an important role is played by inflammatory mediators - cytokines, which are low molecular weight protein mediators produced by different cells (endothelial cells, leukocytes, fibroblasts, etc.) [3, 4]. Nowadays, dozens of cytokines are known, but the most studied cytokines are involved in the process of formation of multiple organ failure syndrome (interleukins, tumor necrosis factor (TNF), interferons, eicosans, growth factor, etc.) [1, 5]. However, there are not so many generalizing works which would define the indications for the use of antioxidant and anticytokine therapy for patients with acute peritonitis.

This retrospective study was approved by Scientific Research Ethics Committee of Bukovinian State Medical University. The study included 96 patients aged 28 to 77 years with a diagnosis of acute peritonitis who were treated in the surgical department of the Chernivtsi Regional Clinical Hospital between 2013 and 2018 Patients were randomly divided into two clinical groups: the control group (n = 40) and the experimental group (n = 56). The failure to sew anastomosis and perforation of acute digestive channels were the main causes of the development of acute peritonitis in patients of both control and experimental groups. All patients were operated in an urgent order: the place of infection was liquidated and or restricted, the primary places were sanitized and drained. Traditional therapies were prescribed in the postoperative period. According to the generally accepted methods, the activities of peroxide oxidation, ceruloplasmin (CP), glutathione peroxidase (GP), catalase (CT) along with the content of malondialdehyde (MA) in erythrocytes were evaluated. The concentration of serum cytokine levels such as TNFα - tumor necrosis factor, IL-1β, IL-8, IL-1Ra, IL-1Ra / TNFα was studied by the Flow Laser Cytophlurometry (PARTEC) method. Patients in the experimental group, in addition to the usual therapy, received “Dalargin” 2 mg 3 times a day intramuscularly, “Petxifilin” 300 mg per 400 ml of physiological solution 2 times a day intravenously and “Refortan” 500 ml of the solution daily.

It was found that the patients with autistic group had a decreased level of MA by 37.3% and OMP by 29.7% after the surgery. The increase of MA and OMP levels (by 42.3%) was noticed on 3rd day after operation. However, these indices in the patients of the experimental group were almost unchanged in comparison to the 1st day. The activity of peroxide oxidation processes became higher in the blood of patients in the control group on 5th day after the operation, than it was before it. In the patients of the research group, these indices were significantly lower.

It was established that the activity of CP in the blood plasma of patients of the control group decreased progressively from the 1st to the 5th day of the postoperative
period - from 77.2 ± 5.61 to 59.32 ± 4.42 o.o.g./g. protein, and in patients of the experimental group the incredibly increased - from 77.2 ± 5.61 to 97.31 ± 4.42 o.o.g./g. protein (p <0.001).

The same regularity is a characteristic for CT activity. The GP activity significantly decreased to the 3rd day after the operation and increased at the 5th day in patients of both groups, and more pronounced - in patients of the experimental group.

In the study of cytokine levels, it was found that the expression of proinflammatory cytokines IL-1b, IL-8, TNFa exceeded the control indicates, while the expression of anti-inflammatory cytokines IL-1Ra "was late" (almost twice). (Table 1). The largest expression of IL-1b, IL-8 potentiated a further chain of proinflammatory reactions. It is indicating the adequacy of the anti-inflammatory response and the relative balance between proinflammatory and anti-inflammatory cytokines along with the adequacy of anti-thyroid therapy. The total amount of purulent-septic complications in patients of the control group was 82.4%, and in patients of the experimental group - 66.7%.

41 patients with acute peritonitis suffered from coronary heart disease (CHD). It was found that a significant increase of proinflammatory cytokine IL-6 in plasma levels, decrease the level of anti-inflammatory cytokine IL-10, and increase the level of C-reactive protein in this group of patients that (in the comparison to the control group and with patients in the experimental group who did not have CHD). In the regression of severe forms of acute peritonitis, there has been a phase of residual events: suppurations of postoperative wounds and effervations, postoperative hernias, residual abscesses, intestinal and ligaturial fistulas, adhesive disease and adhesive obstruction, dysbiosis. This indicates the presence of chronic inflammation in patients with coronary heart disease, which is significantly increased during acute peritonitis. Such complications require not only local treatment, but also long-term functional rehabilitation. That is why we propose the provision of emergency medical care for patients with acute peritonitis to carry out antioxidant and anti-cytokine therapy.

To do this, we used “Refortan”, which according to the literature, has an anti-cytokine action, as well as an endothelioprotector [3, 5], and a dolargin that has antioxidant properties [2].

During the study of pro- and antioxidant systems and the serum concentrations of cytokine in the patients with acute peritonitis, the high prognostic significance of the results of this study was established, which allows to define treatment tactic to these patients. The introduction of the antioxidant and anti-cytokine therapy to the complex treatment of patients with acute peritonitis allowed to reduce the development of CSF from 82.4 % to 66.7%. This approach to the treatment was quite effective and helped to shorten patients’ stay in the hospital.
The dynamics of indicators of pro- and antioxidants, as well as the serum concentrations of cytokines, is prognostically significant, which allows us to determine the tactics of treatment for patients with acute peritonitis. The introduction of the antioxidant and anti-cytokine therapy to the complex treatment of patients with acute peritonitis allowed to reduce the development of CSF from 82.4 % to 66.7%. This approach to the treatment was quite effective and helped to shorten patients’ stay in the hospital.

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PATOPHYSIOLOGICAL ASPECTS OF MENOPAUSE

Pre-menopause is the physiological transition period in woman’s life during which involution processes in the reproductive system, characterizing with the generative and menstrual function stopping, prevail against a background of the age changes [5]. It lasts about 10 years and embraces period from 40-45 years to menopause.

It is known that women’s sexual hormones control lipid exchange and carbohydrate metabolism in the organism, accelerating fats’ splitting and suppressing synthesis of lipid fractions [2]. Since pre-menopause is characterized by progressing emaciation of the follicular apparatus of the ovaries and concentration variability of the women’s sexual hormones in the blood plasma [8], it is possible to presume the presence of changes in lipid exchange on this stage of woman’s life. The analysis of the literary sources affirm that studying the lipid exchange depending upon involution processes in the ovaries was carried out only in women under climacteric period [2,3,6,8,12,13], and only separate works [4,5] are devoted to the investigations of these changes during pre-menopause period.

20 women aged 46-48 years, with fixed transition to pre-menopause on the bases of menstrual cycle dysfunction (periodic delays of menstruation from 1 to 6 months) or amenorrhea during a year as well as a decrease of visualized follicular