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Article name: **Активация антимикробной эндогенной защиты у больных с гнойно-хирургической патологией**

Activation of antimicrobial endogenous protection in patients with pyogenic surgical pathology

Purpose of the work: to research the activity of “respiratory explosion” of neutrophiles as an indicator of endogenous antimicrobial protection in patients with suppurative inflammation at SCENAR-treatment.

Regardless of the existing methods of treatment of pyogenic surgical pathology, the frequency of unfavourable outcomes of surgical interventions does not trend to decrease. The choice of this method is conditioned by the fact that SCENAR (self-controllable energy-neuro-adaptive regulator) has an impact on the complicated, multi-level and multi-component system of neurophysiological, neurochemical and immunological mechanisms and contributes to productive activation of regulative, protective and informational substances in organs and tissues. The essence of the “patient- device” system is impact on adaptive processes of the organism and their harmonization. In the process of SCENAR-treatment, neutrophiles are activated, as well as oxydase of the plasmalemma, which start a series of metabolic reactions characterized as “respiratory explosion”. This term shows the fast change of neutrophiles’ metabolism with actiovation of cellular myeloperoxydase. The myeloperoxydase catalyzes the process of hydrogen peroxide’ transformation into hypochlorite which destroys the walls of bacterial cells and this way destroys the bacteria.

Materials and methods: A course of SCENAR-therapy consisted of 5 procedures. The therapy was applied for post-surgical patients with suppurative complications, as the general conventional therapy was inefficient. Each procedure was accompanied by activation of biologically active points located in the area of the palms and feet, 10 minutes for each area, with processing of projection of the liver. The examinations were performed in a group consisting of 21 people: 11 men and 10 women, aged 18 to 87. In most of the patients pyoinflammatory diseases of organs of abdominal cavity were registered – 13 patients; 8 patients with wounded infections; grave complications (sepsis) were registered in 2 patients. Comparative characteristic was performed before and after SCENAR-therapy. All the patients had symptoms of intoxication – febrile temperature, headache, atony, weakness, signified pain syndrome.

Results of the research: After the first procedure, in most of the patients (13 people) a trend to temperature decrease was registered, as well as improvement of general somatic condition; normalization of the temperature curve is registered in 20 patients after the 3rd procedure.

The analysis of values of the blood picture also showed a distinct positive dynamics which correlates with the values of the temperature curve and this fact is evidenced by leukocytosis decrease and ESR in 13 patients after the 1st procedure; in 4 patients a counterreaction was registered – activation of bacterial process; paraclinic data was without dynamics in 4 patients, which possibly is connected with the fact that the clinical researches were performed with patients who were in different phases of the inflammatory process's activity.

Additionally, in the process of SCENAR-therapy, change in functional metabolic activity of neutrophiles is noticed, which manifests as increase of myeloperoxidase activity in 18 patients, and this fact evidences about increase of neutrophiles' bactericide activity. A change in values of cellular chemical luminescence (it increase) was also noticed in 17 patients.

Conclusions:

1. A high clinical efficiency of SCENAR-therapy was ascertained in patients with pyogenic surgical pathology on the background of inefficiency of the general conventional therapy; the positive effect at reducing of pain syndrome and symptoms of intoxication was also noticed.
2. Normalization of paraclinical values (WBC differential, ESR) progresses in shorter periods.
3. During the process of SCENAR-therapy, dynamics of myeloperoxidase activity changes (increase), which evidences about increase of neutrophiles' bactericide function.
4. The obtained data of cellular chemical luminescence increase, evidences about a start of metabolic reactions known as "respiratory explosion", which leads to cellular activation and phagocytic migration to inflammatory tissues.

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