МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»

М А Т Е Р І А Л И

105-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького персоналу
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Матеріали підсумкової 105-ї науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу Буковинського державного медичного університету, присвяченої 80-річчю БДМУ (м. Чернівці, 05, 07, 12 лютого 2024 р.) – Чернівці: Медуніверситет, 2024. – 477 с. іл.

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У збірнику представлені матеріали 105-ї підсумкової науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу Буковинського державного медичного університету, присвяченої 80-річчю БДМУ (м. Чернівці, 05, 07, 12 лютого 2024 р.) із стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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associations consisting of 4 species of microorganisms decreases 1.4 times. The number of associations consisting of 5 species in patients decreases by 3.5 times.

Among the most numerous associations consisting of 3 species of pathogenic and conditionally pathogenic autochthonous facultative microorganisms, the associations of the following representatives are more common: *M.catarrhalis, S.aureus* and *Bacteroides spp*.; *Prevotella spp., S.viridans* and *S.salivarius*; *M.catarrhalis, Prevotella spp*. and *S.epidermitis*; *H.influenzae, Prevotella spp*. and *S.epidermitis*. Associations consisting of 4 species were found in 34% of patients and consist of *S.pneumoniae, M.catarrhalis, S.pyogenes, Fusobacterium spp*; *S.pneumoniae, E.coli, S.aureus* and *Candida spp*.; *S.pneumoniae, E.coli Hly+, S.viridans* and *Candida spp.*

The dominant pathogens of the chronic inflammatory process in the maxillary sinuses are *S.pneumoniae, H.influenzae, M.catarrhalis*. Other bacteria (*S.pyogenes,* S.aureus, E.coli Hly+, *B.fragilis*) are additional or accidental (*E.coli Hly+, B.fragilis*) pathogens. All leading pathogens persist in the habitat in the association.

Conclusions. In patients with CPRS combined with type 1 diabetes mellitus of moderate severity an imbalance of autochthonous obligate, facultative and allochthonous microorganisms is formed in the contents of the maxillary sinus cavity due to the elimination or formation of a pronounced deficiency of autochthonous obligates, genus *Balibacterus .sanguis, S.mitis, S.mutans, L.lactis,* etc.) and a significant increase in the number and dominant role of pathogenic and opportunistic *S.pneumoniae, Bacteroides spp., S.epidermidis, M.catarrhalis, H.influenzae, Prevotella spp., S.viridans, S.pyogenes, S.aureus* and others. Therefore, the severity of type 1 diabetes in patients with CPRS negatively affects the species composition, population level, qualitative and quantitative dominance of autochthonous obligate and facultative, as well as allochthonous for the habitat of microorganisms and their associations.

Melnyk I.M.

PERSONALIZED APPROACH TO THE TREATMENT OF PURULENT WOUNDS

Department of Surgery No. 1
Bukovinian State Medical University

Introduction. The problem of effective treatment of purulent wounds is one of the most pressing issues in surgery, the importance of which increased significantly during the war period. Despite the numerous developments of methods of local impact on the surface of the wound, the synthesis of new drugs for disinfection, stimulation of regenerative regeneration, it is not always possible to achieve a quick positive result of treatment. This is due to the multifaceted pathogenesis of wound healing processes, the mechanisms of which are far from fully revealed, the expressed individual feature of inflammatory reactions and regeneration processes, which are genetically determined, and this requires a personalized approach to treatment. It can be done through various genetic studies that reveal the individual characteristics of these processes and make it possible to predict their course. All this will be the basis for the choice of personalized treatment tactics.

The aim of the study is to increase the effectiveness of purulent wound treatment by researching the primary mechanisms of inflammation and regeneration as well as their genetic determination and on this basis to develop personalized treatment tactics.

Material and methods. The subject of the study was 8 patients with purulent wounds of the extremities, who underwent a comprehensive laboratory examination with an assessment of the activity of peroxide oxidation processes, proteolytic and fibrinolytic activity, markers of the severity of inflammation and regeneration processes. All patients were analyzed for polymorphism of the matrix metalloproteinase (MMP1) gene by Real Time PCR.

Results. A clear dependence of the nature of the pro- and antioxidant systems on the phase of the wound process was revealed. Excessive activation of peroxide oxidation processes in the inflammatory phase is accompanied by pronounced activity of antioxidant protection enzymes. In the regeneration phase, there is an advantage of antioxidant systems over the activity of peroxide oxidation. In the third phase, an unstable balance between pro- and antioxidant systems is observed.

It is characteristic that both the severity of these processes and the ratio between them correlate with variants of the MMP 1 genotype. The fibrinolytic activity of plasma changes cyclically. The ratio between enzymatic and non-enzymatic fibrinolysis in different phases of the rank process differs significantly and is clearly correlated with MMP 1 genotype variants. Proteolytic activity also changes in different phases of the wound process and is more pronounced in the first phase, especially for low- and medium-molecular structures. Excessive activation of proteolytic activity to collagen structures in the regeneration phase distorts regenerative processes and prolongs wound healing. It was found that the nature of the activity of the components of proteolysis correlates with variants of the MMP 1 genotype. This indicates the possibility of predicting the course of the wound process based on the results of research on the variants of the MMP 1 genotype and can serve as a basis for choosing personalized treatment tactics aimed at preventive correction of damaging mechanisms that have genetic determinism.

We have also proven the effectiveness of using laser irradiation according to the developed scheme of the wound for correction of reparative regeneration, acceleration of epithelization processes.

Conclusions. A comprehensive study of the mechanisms of inflammation and regeneration, taking into account their genetic determination, makes it possible to choose personalized treatment tactics aimed at preventive correction of damaging mechanisms and stimulation of regenerative processes, which improves the results of treatment of such patients.

Moroz P.V.

MODERN APPROACHES TO TREATMENT OF ACUTE PERITONITIS

Department of Surgery № 1
Bukovinian State Medical University

Introduction. Improving the effectiveness of treatment of acute peritonitis is one of the most difficult problems of abdominal surgery. Despite significant advances in the development of treatment for such patients, mortality rate remains high (from 16% to 63%) and does not tend to decrease. One of the reasons for this is the excessive activity of IL1β, which carries genetic determinism, which serves to progress the inflammatory process in the peritoneal cavity and insufficient effectiveness of existing methods of peritoneal remediation. This leads to prolongation of the inflammatory process, its progression, translocation and generalization of microorganisms.

The use of laparoscopic technologies and the development of methods for predicting the occurrence of the inflammatory process in the peritoneal cavity is one of the most promising ways to improve the results of treatment of patients with acute peritonitis.

However, in diffuse and general peritonitis, laparoscopic techniques do not allow remediation of all pockets and depths of the peritoneum, therefore, preference should be given to laparotomy accesses.

The aim of the study. Study of factors that make it possible to predict and diagnose the course of acute peritonitis

Material and methods. A comprehensive examination of 115 patients admitted to the hospital with diffuse peritonitis signs was conducted.

Results. All patients were recognized with a variant of the IL1β 511 C / T gene, and after elimination of the cause of peritonitis, peritoneal remediation was performed by repeated washing with antiseptic solutions, preferring surfactants. We have improved the technology of flushing the peritoneal cavity by supplying the solution to the peritoneal cavity under the pressure created by oxygen. This helped to reduce the number of bacteria, especially anaerobic ones and provided vibromassage of tissues with oxygenated solution, which improved their microcirculation.

In patients with unfavorable CT and TT gene variants, the clearance of aerobic microflora from peritoneal exudate was 90.7%, aerobic - 64.9%, and from parietal peritoneum and fibrin layers - only 34.9% and 27.5% respectively. Due to this, the need for re-rehabilitation of the peritoneal cavity became obvious. For this purpose, at laparoscopic accesses we left special ports through which we carried out relaparoscopic remediation. At laparotomy accesses we used the programmed