



Patterns of Microbial Contamination in Purulent Peritonitis and Mechanisms of Efficiency of Regional Proteolysis by Immobilized Proteinases

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ABSTRACT

The causes of high mortality in widespread peritonitis are very diverse. The most objective of them is the emergence in recent years of highly virulent antibiotic-resistant microflora, which largely determines the pathogenetic features of the course, clinical manifestations and outcome of the purulent-inflammatory process, including the intra-abdominal one. At the same time, the qualitative and quantitative composition of the microflora has an important prognostic value. Until recently, the infectious process of the abdominal cavity was mistakenly presented as a monoinfection, caused mainly by Escherichia coli or staphylococci, less often by their associations. Bacteriological studies of recent years have shown the polymicrobial nature of the developing infection with the participation of various aerobic and anaerobic microorganisms. The purpose of the work: to study the patterns of bacterial contamination of the abdominal cavity with widespread purulent peritonitis and the mechanisms of its reinfection; elucidation of the sanitation effect of regional prolonged proteolysis by immobilized proteinases. Our bacteriological studies, using modern microbiological equipment, showed the important pathogenetic significance of the associative aerobic-anaerobic microflora vegetating in the digestive tract, the critical concentration of microorganisms, microbial synergism in the pathogenesis of peritonitis. This coincides with a number of published materials. An analysis of the impact of various groups of antibacterial drugs on pathogens of the infectious process in the abdominal cavity revealed their multiple antibiotic resistance, the presence of beta-lactam strains that destroy the beta-lactam ring of antibiotics, resulting in a decrease in the effectiveness of their use. Therefore, the questions of the rational use of antibacterial drugs and the rejection of their routine use are being raised more and more acutely. Sometimes a clinician, especially in extreme situations, lacks concise information on the use of antibiotics and their combinations, which are necessary for specific emergency conditions. For this, it is desirable to monitor the microbial landscape in surgical departments in order to identify the leading pathogens of the infectious process and nosocomial strains, their spectrum of resistance to antibiotics, which makes it possible to empirically select the correct antibacterial therapy, which is confirmed by the results of subsequent bacteriological studies.

KEYWORDS: Peritonitis, purulent, microbial contamination, regional proteolysis, immobilized proteinases

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