

MICROBIOLOGICAL MONITORING OF MICROORGANISMS ISOLATED FROM CLINICAL MATERIAL IN THE PAEDIATRIC PURULENT OTORHINOLARYNGOLOGICAL UNIT FOR THE YEAR 2020 AND THEIR SENSITIVITY TO ANTIBACTERIAL DRUGS

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Topicality ineffective use of antibiotics is one of the global causes of the emergence and spread of antibiotic resistance. Improperly selected antibiotic or its regimen causes ineffectiveness of initial treatment, the need for repeated visits to the doctor and repeated courses of therapy, which leads to a significant increase in the cost of therapy [1]. In 2020, the occurrence of micro-organisms and their sensitivity to antibiotics was monitored in order to further justify the prescription of optimal antibiotic therapy for a particular patient.

Study objective to conduct microbiological monitoring of microflora from clinical material in a paediatric purulent otorhinolaryngological unit and to determine sensitivity to antibacterial agents used in the unit.

Materials and methods in 2020, a total of 916 biomaterial samples from patients of the purulent otorhinolaryngological department for children were examined and sensitivity of all clinically relevant microorganisms to antibacterial agents used in the department was determined. We analysed the inpatient records of 916 patients and analysed the results of microbiological investigations.

Results. Among the microorganisms isolated in pathology of ENT organs in children, the main part falls on gram-positive flora. Among which *Staphylococcus aureus* accounts for (36%), *Streptococcus pneumoniae* (9%), and *Streptococcus pyogenes* (8%). *Staphylococcus aureus* strains isolated from patients in this ward showed high levels of sensitivity to all drugs tested, except benzylpenicillin (S-37%) and erythromycin (S-63%). No methicillin-resistant strains were isolated. A wide range of antibacterial agents can be used to treat patients. When treating pneumococcus, the drugs of choice are second- and third-generation cephalosporins, "respiratory" fluoroquinolones (in older children), and macrolides. Of the Gram-negative flora isolated in this unit, *Pseudomonas aeruginosa* had the greatest clinical significance (14 isolates -14% of all microorganisms isolated). Isolates were 100% sensitive to colistin, amikacin, piperacillin-tazobactam; 84.6% to imipenem; 83.3% to cefepime; 76.9% to gentamicin; 62.5% tobramycin; 69.2% to ceftazidime; 40% to meropenem.

Conclusions. Among pathogens in ENT pathology in children, Gram-positive microflora has the greatest importance, among which the main role is played by

Staphylococcus aureus. Strains of this microorganism showed high sensitivity to all the antibiotics tested.

An unquestionable advantage of this study is that no methicillin-resistant strains were isolated. Among the Gram-negative flora, *Pseudomonas aeruginosa* is the most clinically significant, as it is also sensitive to most antibiotics used in the paediatric purulent otorhinolaryngological unit.

THE COMPARISON OF THE HISTOLOGICAL PICTURE OF A PURULENT WOUND IN GUINEA PIGS WITH FURUNCLES OF THE HEAD AND NECK AREA WITH THE STANDARD METHOD AND IN CONJUNCTION WITH REFLEXOLOGY

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Introduction. The problem of treating patients with furuncles of the maxillofacial region is becoming increasingly important. The use of reflexotherapy devices allows you to speed up the healing process, reduces the pharmacological burden on the body and contributes to the rapid restoration of health.

Research objectives are to compare the effectiveness of reflexology on the local inflammatory process based on histological analysis with different treatments.

Materials and methods. A model of the furuncle of the head and neck area had been created for 20 guinea pigs. The animals had been divided into 2 equal groups. The first group received standard treatment. In addition to the standard treatment, the second group underwent reflexology. Tissues of experimental animals had been collected from the purulent focus on 3, 7, 14, 21 days.

Results. In all sections taken from two groups of experimental animals on the 3 and 7 days after the occurrence of a furuncle, histological analysis determines purulent inflammation. On the fourteenth day, on sections taken from experimental animals of the first histological analysis determines purulent inflammation. On all sections taken from experimental animals of the second group, histological analysis determines productive inflammation. On the twenty-first day, on sections taken from experimental animals of the first group 71.4% of histological analysis determines productive inflammation, in 28.6% is absence of inflammation. The morphological conclusion indicates the absence of inflammation in animals of the second group.

Conclusion. The results of histological analysis demonstrate the positive effect of reflexotherapy on the course of the local inflammatory process in the studied disease.