

Analiza flory bakteryjnej i grzybiczej zatok szczękowych u chorych operowanych metodą FESS

The analysis of the bacterial and fungal flora in maxillary sinuses in patients operated due to FESS method

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Summary

Introduction. The aim of this work was to analyse the bacterial and fungal flora in maxillary sinuses in patients operated due to the FESS method. **Material and methods.** Studies were conducted on 110 patients, including 47 women aged 17-78 and 63 men aged 17-66, who underwent endoscopic surgical procedures due to chronic polypoid maxillary sinusitis between 2006 and 2007. 214 cultures were prepared altogether. During the endoscopic operation on paranasal sinuses, a cannula was introduced along the natural entrance and material for the culture and antibiogram was removed by suction. **Results.** In the studied material of 214 cultures, 72 (33.6%) cultures obtained positive results, including 2 cases with bacterial and fungal floras present simultaneously (*Aspergillus fumigatus* and *Aspergillus niger*) in 38 operated patients. In 25 (34.5%) cultures we noted the presence of *Staphylococcus epidermidis*, which was sensitive to the following antibiotics: Cotrimoxazole, Rifampicin, Vankomycin, Teicoplanin and Levofloxacin. *Staphylococcus epidermidis* was isolated in 22 (31.0%) cultures, showing 100% sensitivity to similar antibiotics like the previous one. Another bacteria (*Escherichia coli*) was cultured in 10 cultures (13.8%), in 70% of the cases every second bacteria was *Staphylococcus epidermidis* with 100% sensitivity mainly to cephalosporins and aminoglycosides. In 3 cultures (4.17%) we found *Klebsiella pneumoniae*, with 100% sensitivity to cephalosporins and aminoglycosides and 100% resistance to penicillins. In three cases *Pseudomonas fluorescens* and *Proteus mirabilis* (4.17% each) were cultured with their sensitivity and resistance similar to those of *Klebsiella pneumoniae*. Two cases (2.8% each) in the cultures were noted: *Citrobacter freundii*, *Streptococcus oralis* and *Hafnia alvei*, which were 100% sensitive to some cephalosporins and aminoglycosides whereas their resistance to penicillins and Cefuroxime was as high as 100%. **Conclusion.** In the operated patients suffering from chronic polypoid maxillary sinuses we found 33.6% of positive results in the bacterial flora. This indicates that the changes were accompanied by an acute inflammatory condition, thus surgical procedures had to be followed by a guided antibiotic. The cultured bacteria demonstrated sensitivity to some cephalosporins and aminoglycosides and resistance to penicillins, which proves the abuse of penicillins in the treatment of acute inflammatory states of upper airways.