

# Przyczyny niepowodzenia w leczeniu długo trwającego ostrego zapalenia ucha środkowego u dzieci

Evaluation of antibiotic resistance in material isolated from the middle ear in children with acute otitis media not responding to standard antibiotic treatment

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## Summary

**Introduction.** An increasing antibiotic resistance of pathogens is the main cause of failures during treatment of acute otitis media (AOM). **Aim.** A qualitative and quantitative bacteriological analysis of material isolated from the middle ear in children with AOM treated with antibiotic without improvement. **Material and methods.** This is a prospective study performed in Department of Otolaryngology in Warsaw between 2005 and 2007. An examined group consisted of 72 children aged from 6 months to 17 years, admitted to Department of Otolaryngology because of failure of antibiotic therapy of AOM, severe course of this disease and complications of AOM or persistent AOM. In all children were performed the myringotomy and/or ventilatory tube insertion and/or mastoidectomy and the material from the middle ear was collected to bacteriological examinations. **Results.** The positive cultures were obtained in 63.9% patients. *Streptococcus pneumoniae* (40.4%), *Staphylococcus aureus* (14%), *Haemophilus influenzae* (10.5%) and *Pseudomonas aeruginosa* (10.5%) were the most frequently found bacteria in the culture of middle ear. b-laktamase producing bacteria were isolated in 12 children (21.1% of isolated bacteria). *Staphylococcus aureus* (7 children, 12.3% of positive cultures) was the bacteria most frequent producing b-laktamase. The most of organisms were susceptibility to amoxicillin/clavulanate - 56,1% of bacteria from the middle ear. The most of organisms presented resistance to penicillin - 63.9% of bacteria from the middle ear. **Conclusions.** Microbiological identifications and antibiotic resistance determination of pathogens isolated from the middle ear in children with AOM not responding to empirical antibiotic treatment gives possibility of the choice of an effective antibiotic and its proper dosage. The pathogenic bacterial flora isolated from the middle ear in children with AOM shows evidence to accomplishing changes in the most frequent pathogens causing acute otitis media in children.