

# Preoperative and Intraoperative Culture Results of Patients with Chronic Otitis Media; Is Culture Swab Reliable?

müzeyyen yıldırım baylan<sup>1</sup>, Ümit Yılmaz<sup>1</sup>, Vefa Kınış<sup>1</sup>, Nida Özcan<sup>1</sup>, and nezahat akpolat<sup>1</sup>

<sup>1</sup>Dicle Universitesi

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## Abstract

**Objective:** The aim of this study was to analyze the culture antibiogram results of samples obtained directly from the middle ear and/or mastoid cells in the operating room, and from the external auditory canal in the outpatient. **Methods:** This study was conducted between 2016-2018 in Microbiology and Otorhinolaryngology Department. Swab cultures were obtained through the external ear canal preoperatively in outpatients. Middle ear swabs and mastoid granulation tissue were collected intraoperatively, respectively. Demographic datas, bacterial identifications and antibiotic susceptibilities were compared in both groups. **Results:** Two hundred thirty eight patients with chronic otitis media were enrolled in the study. Out of the 238 cases, 86 patients had negative culture results. *P. aeruginosa* (n=44), Coagulase Negative Staphylococcus (n=33), *S. aureus* (n=27), *Proteus mirabilis* (n=16) and *E. coli* (n=10) were the most common grown bacteria in both groups. Most common identified groups were Gram-positive bacteria (n=92), non-fermenter Gram-negative bacteria (n=55) and Enterobacteriaceae (n=42). Gram-positive cocci were higher in outpatient group, whereas Enterobacteriaceae were higher in intraoperative group ( $p<0.05$ ). Antibiotic susceptibilities of *P. aeruginosa* and *S. aureus* were found to be lower especially in the preoperative group ( $p <0.05$ ). **Conclusion:** *P. aeruginosa* was the most common bacteria in both preoperative and intraoperative cultures and high ciprofloxacin resistance of the isolates were remarkable. Although contamination is an issue in samples collected from the external ear canal of outpatients using cotton swabs, similar microorganisms grew in outpatient and intraoperative cultures

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