Correlations between Air Bone Gap With Ossicular Status in Chronic Suppurative Otitis Media Patients

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Background: Prediction of ossicular status in chronic suppurative otitis media (CSOM) before tympanomastoidectomy was required for selection of surgical techniques. Some studies about prediction of ossicular status with air bone gap had revealed different results. Objective: This study aimed to prove correlation between air bone gap and ossicular status in CSOM patients whom underwent tympanomastoidectomy at Department of Otorhinolaryngology Head and Neck Surgery Dr. Soetomo Hospital Surabaya.

Method: An observational analytic study with cross sectional design using secondary data. Ossicular status during the surgery was obtained from operation report based on Austin-Kartush criterias. Air bone gap was obtained from deviation between AC and BC from audiogram at frequency 500, 1000, 2000, and 4000 Hz.

Results: The narrowest air bone gap was found in ossicular status A (29.0 dB) at 2000 Hz and widest one was in ossicular status C (62.5 dB) at 500 Hz. The ossicular destruction that most common invention in the study was 63.1% while the normal ossicles (ossicular status O) was 36.9%. The most common ossicular destruction that found in this study of all ossicles (ossicular status D) was 36.9%; followed by incus and stapes (ossicular status B) was 9.2%; incus (ossicular status A) was 10.7%; maleus and incus (ossicular status C) was 6.2%; and fixation of stapes (ossicular status F) was 3.1%. Three-way Anova test at 1000 Hz frequency resulted p value =