

TYMPANOMETRIC NORMS FOR MALAY YOUNG ADULTS USING QUANTITATIVE APPROACH

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Tympanometric normative data are influenced by race (Wan & Wong 2002), gender (Roup et al. 1998) and age (Margolis & Heller 1987). Tong (1999) reported that 48% of South Chinese Children who failed middle ear screening were diagnosed to have normal middle ear function when interim normative data by ASHA (1990) was used as screening criteria. This current study aimed to obtain tympanometric normative data of Malay young adult quantitative approach. Three parameters were measured which include peak Compensated Static Acoustic Admittance (Peak Y_{tm}), Equivalent Ear Canal Volume (V_{ea}) and Tympanometric Width (TW). The results obtained were compared between genders within this study. Data were also compared with data obtained by Roup et al. (1998). 96 subjects (154 ears) involved consisted 49 males and 47 females. Subject selection criteria included pass otoscopic examination, normal hearing, pass ipsilateral acoustic reflex screening and no history of otological problems. Results from this study showed that the mean values for peak Y_{tm} , TW and V_{ea} for Malay young adults were 0.72 mmhos, 106.16 daPa and 1.31cm³ respectively. Statistical analysis showed significant differences ($p < 0.05$), of mean values for peak Y_{tm} (0.81 mmhos) and V_{ea} (1.48cm³) of males compared to Peak Y_{tm} (0.63mmhos) and V_{ea} (1.12 cm³) of females. No significant differences found in mean values of TW between genders. The 90th percentile of each parameter was also compared between genders. Males showed Peak Y_{tm} between 0.37-1.48 mmhos. TW 28.42-279.50 daPa and V_{ea} between 1.00-2.10cm³; while female showed Peak Y_{tm} , between 0.29 -1.07 mmhos, TW between 43.33-208.75 daPa and V_{ea} between 0.68 -162 cm³. Mean Peak Y_{tm} and mean V_{ea} from this study showed no significant difference by Roup et al. (1998), ($p > 0.05$). However mean TW between studies showed significant difference. This current study suggests that gender determines the normative data of Peak Y_{tm} and V_{ea} in Malay young adults. Study also suggests that normative data of Peak Y_{tm} and V_{ea} . By Roup et al. (1998) can be applied on Malay young adults.

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