

**LATENCY-INTENSITY FUNCTION AND AMPLITUDE-INTENSITY FUNCTION OF
CORTICAL AUDITORY EVOKED POTENTIALS IN ADULTS WITH NORMAL
HEARING AND SENSORINEURAL
HEARING LOSS**

Yeo Hui Hui

The objective of this study was to investigate the effect of sensorineural hearing loss on cortical auditory evoked potentials (CAEP) by comparing the latency-intensity function, amplitude-intensity function, and ipsilateral and contralateral recordings of CAEP between normal hearing adults and adults with sensorineural hearing loss. The study was a cross-sectional study involving 35 subjects aged 20 to 40 years old with 21 normal hearing subjects and 14 subjects with mild to moderate hearing impairment (25dB HL to 50 dB HL). Recordings were made using the consonant-vowel-consonant (CVC) speech stimulus /bus/. Results showed that there were significant differences in latency-intensity function of N1 in contralateral recording and P2 in ipsilateral and contralateral recordings between normal hearing adults and adults with hearing loss. For amplitude-intensity function, results showed that there was no significant difference for N1 and P2 in both ipsilateral and contralateral recording in both groups. Besides, research findings also showed that there was no significant difference in latency-intensity function of N1 and P2 between ipsilateral and contralateral recording for both normal hearing adults and adults with hearing loss. There was also no significant difference for amplitude-intensity function found except at N1 in normal hearing adults. In conclusion, longer latency in adults with hearing loss as compared to normal hearing adults indicates that there was slowing in auditory system which underlie the stimulus processing. The difference in amplitude-intensity function of N1 between the ipsilateral and contralateral recordings suggest that neuron transmission in the contralateral pathway was stronger as compared to the ipsilateral pathway.

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