

عنوان مقاله:

A Survey on Auditory Brainstem Response and Pure Tone Audiometry Modalities in Mobile Phone Users

محل انتشار:

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خلاصه مقاله:

Background & Objective: Given the probable harmful effects of the electromagnetic fields of mobile phones, the present study investigated auditory brainstem response (ABR) and pure tone audiometry (PTA) modalities in mobile phone users. **Materials & Methods:** This cross-sectional study was carried out on 96 healthy mobile phone users in Zanjan city. The subjects were evaluated for demographic information, average daily use of mobile phones, the total duration of use in years, the dominant ear of use, and neural and auditory complaints. Subsequently, ABR and PTA tests were conducted. Afterward, the data was analyzed using SPSS V.18 software and $P < 0.05$ was considered as significant. **Results:** Concerning the relevance of the average latencies of waves and average daily use of mobile phones, a significant correlation was found between mobile phone use and wave (P=0.04), and wave (P=0.03) latencies in the right ear. Furthermore, there was a significant difference in PTA results according to average daily use in the right ear (P=0.05) and the number of years of use (P=0.01) and preferred ear of use in the left ear (P=0.02). There was also a marginally statistically significant relationship (P=0.06) between the average daily use of mobile phones and decreased hearing threshold level in the 8000-Hz frequency in the right ear. **Conclusion:** Given the effects of average daily use of mobile phones and total years of use, it is proposed that long-term mobile phone use exerts probable harmful effects on the auditory system.

کلمات کلیدی:

Auditory brainstem response, Pure tone audiometry, Mobile phones

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