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Speech, Language and Hearing
Volume 17, Issue 3, September 2014, Pages 160-167

Intra-subject variability in the auditory brainstem response using a vertical montage recording (Article)

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Abstract

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Purpose: The present study investigated the intra-subject variability in auditory brainstem responses (ABRs) recorded using a vertical montage and compared the results with the ABRs recorded using an ipsilateral montage. **Methods:** A total of 31 adults with normal hearing were involved in this study. The ABRs from vertical and ipsilateral montages were recorded at 80, 50, and 30 dBnHL using 0.1 ms click stimuli on the right ear with a stimulus rate of 19.1 Hz. Each participant was tested in two clinical sessions with a 7-day interval between sessions. The ABR results between the sessions and montages were compared and statistically evaluated. **Results:** The ABR results were generally consistent between the two sessions in both the ipsilateral and vertical montages. The test-retest mean differences (test session 2 minus test session 1) between the ipsilateral ABR and vertical montage ABR results were also similar. Coefficient of variation values indicated that more variability was associated with smaller amplitude ABRs than higher amplitude ABRs. **Conclusion:** The ABR recorded through the vertical montage had, in general, a similar reliability to the ABR recorded using the ipsilateral montage. © W. S. Maney & Son Ltd 2014.

Author keywords

ABR variability Auditory brainstem response Nape electrode Non-cephalic recording Vertical recording

ISSN: 2050571X

Source Type: Journal

Original language: English

DOI: 10.1179/2050572814Y.0000000035

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