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Immediate and delayed recall measures in cochlear implant recipients: relationships with speech perception

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Keywords

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Abstract

OBJECTIVES

Examine the relationship between immediate and delayed recall on the California Verbal Learning Test, Third Edition (CVLT-3) in adult cochlear implant (CI) recipients as it relates to list learning. Then, assess relationships between immediate & delayed recall and speech perception in this population.

METHODS

18 post-lingually deafened CI recipients participated in this study. Participants completed the CVLT-3, providing measures of immediate and delayed recall. Immediate recall measures consisted of 5 learning trials in succession after hearing a list of the same 16 words each time. Delayed recall measures consisted of both cued and non-cued recall with short and long-delay periods. Speech perception was assessed using the AzBio sentences with CI recipients in their best-aided condition.

RESULTS

Significant relationships between immediate and delayed recall were observed. The relationships between long-delay free recall and immediate recall measures grew stronger with each trial performed. Word acquisition across all 5 trials was also associated with long-delay free recall. Immediate and delayed recall measures significantly correlated with speech perception.

CONCLUSIONS

There was a strong relationship between immediate and delayed recall that progressed through all 5 trials. In addition to immediate and delayed recall measures, the improvement in word acquisition across all trials may prove useful to further understand

the variability associated with cochlear implant recipients' speech perception performance.

