

AUDITORY P300 IN APHASIC AND NORMAL ADULTS

Fadilah Rukmat

Aphasia is characterized by language deficit. However, it is usually associated with neuropsychological (cognitive) deficits. Thus, the management of patients with aphasia must be based on these two deficits. Cognition consists of attention and memory. As P300 testing assesses the integrity of these two aspects, it can be used to assess cognitive function in patients with aphasia. This study compares the auditory P300 of aphasic and normal adults. The objective of this study is to compare the P300 response (amplitude and latency) between aphasic and normal adults. Ten aphasics and ten normal adults had participated in this study. The result showed that there was a significant difference in the mean amplitude of P300 between aphasic and normal adults $F(1,18) = 13.075$, $p < 0.05$, effect size = 0.421, power observed = 93%. Moreover, there was a significant difference in the mean latency of P300 between aphasic and normal adults $F(1,18) = 6.813$, $p < 0.05$, effect size = 0.275, power observed = 70%. The plot profile showed that the mean amplitude for aphasics (4.27 ± 2.28 pV) is smaller than the mean amplitude in normal adults (10.55 ± 5.20 μ V). The mean latency in aphasic (348.22 ± 58.77 ms) was longer than in normal adults (298.89 ± 32.18 ms). Based on this study, it was concluded that aphasic had a decreased in attention and in the rate of information processing compared to normal adults. This attention problem must be reckoned to form a reliable diagnosis and effective therapy management. Hence, the use of P300 testing with language assessment can contribute to the effectiveness of aphasic management.

Rukmat, F. 2008. Auditory P300 in Aphasic and Normal Adults. Bachelor of Audiology Thesis. Universiti Kebangsaan Malaysia.