

Can auditory-electrophysiological study provide a help in understanding the nature of attention deficit hyperactivity disorder in children?

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The aim of this study is to investigate the auditory brainstem response (ABR) and P300 auditory evoked potentials in children with ADHD and to find any correlation between changes in these electrophysiological tests and the scores of inattention and impulsivity in those children. A study group of 30 child with a diagnosis of ADHD (age range 7 -10 years) with normal hearing threshold compared with normal 30 control child recruited. Both groups were subjected to basic audiological and psychological evaluation including Pure Tone Audiometry (PTA),

ABR and event related potential (P300). There were prolonged ABR wave V latency and I - V inter-peak latency and increased latency of P300 with diminished amplitude when compared with the control group. There were also a significant correlation between these changes and the inattention and impulsivity scores of ADHD group. In conclusion ABR and P300 were considered as valuable tool in evaluating children with ADHD.