

Abstract

Background: International research has shown that middle latency responses (MLR) are sensitive to auditory processing disorders. It seems to be a useful measurement for evaluation of the central auditory system and in the diagnosis of Auditory Processing Disorder (APD), but the MLR has not yet been established in a test battery for APD in Norway.

Purpose: The main purpose of this study was to examine the components of MLR in a sample of children referred to the audiological department at St. Olavs Hospital for suspected auditory processing disorders. The children were categorized depending on their performance on the central auditory test battery, and they were compared to a matched group of normal hearing children.

Material and methods: This is a study of latencies and amplitudes caused by the middle latency auditory potentials in a population of children, aged 8-15 years from both genders. Totally forty-three children were tested, of them seventeen children with no hearing difficulties. MLR were investigated with click stimuli at 70 dB nHL. Data were analyzed statistically by using the Independent-Samples T-test.

Results: Analysis showed no significant differences between the groups, but data showed significant differences for latencies at Pa between genders when looking at the whole group together. There were also some children in the “not APD”-group that had abnormal latencies, and this could be evidence for auditory processing disorder.

Conclusion: Results from this study show that MLR could be an important measurement for the diagnosis of APD. Though there were no significant differences between the groups, there were differences on the individual basis.

Relevance

This study is relevant for clinicians who evaluate children suspected with auditory processing disorder, and especially in Norway where there is a need for establishing a test battery for APD.