The effect of passive tactile stimulation in the brain activity of children with attention deficit

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Abstract

INTRODUCTION:
The N200 and P300 evoked potentials have proved a useful tool in monitoring children with attention deficit disorder (ADD).

AIM:
To assess brain information processing by the N200 and P300 in touch modality in children with ADD.

SUBJECTS AND METHODS:
The P300 and N200 components to oddball tactile stimulation paradigm were recorded in an experimental group of 17 children with ADD at the beginning and the end of the daily training tactile stimulation, another 12 children with ADD and 21 control children without ADD who no received tactile stimulation. Three groups aged between 7 and 11 years.

RESULTS:
Results show a significant decrease in latency of N200 and P300 waves in the experimental group at the study end. N200 significant differences in the experimental group temporal parietal and occipital areas were found, while the differences in the P300 are located in postcentral and parietal areas.

CONCLUSION:
Systematic, orderly and organized tactile stimulation in children with ADD can be effective to improve N200-P300 latencies providing greater parietal brain plasticity, associated to perceptive attention.