Topographic Mapping of Brain with Food Induced Attention Deficit Disorder

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In 15 children suffering from food induced attention deficit hyperkinetic syndrome, topographic EEG mapping of brain electrical activity was carried out following avoidance and ingestion of previously identified provoking foods.

A crossover design was used and recordings were interpreted independently by two investigators, one of whom was blind to the order of testing.

During consumption of provoking foods there was a significant increase in betal activity in the frontotemporal areas of the brain. This investigation is the first one to show an association between brain electrical activity and intake of provoking foods in children with food-induced attention deficit hyperactivity disorder.

CONCLUSIONS: These data support the hypothesis that in a subgroup of children with attention deficit hyperactivity disorder certain foods may not only influence clinical symptoms but may also alter brain electrical activity.