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EEG activity in children with Asperger's Syndrome

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Abstract

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EEG activity in children with Asperger's Syndrome

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Aims: This study investigated differences in the EEG of children with Asperger's Syndrome. Method: Twenty two boys with Asperger's Syndrome, aged 7 to 12 years, and an age and sex matched control group, participated in this study. The EEG was recorded during an eyes-closed resting condition from 19 electrode sites, which were clustered into nine regions prior to analysis. One minute of trace was analysed using Fourier transformations to obtain both absolute and relative power estimates in the delta, theta, alpha and beta frequency bands. Results: The Asperger's group had global increase in absolute delta and a frontal increase in relative delta. Both absolute and relative theta were globally increased and relative alpha was globally decreased. Conclusions: These results suggest the existence of frontal lobe abnormalities in children with Asperger's Syndrome, and possible abnormalities in normal CNS maturational processes.

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Keywords: EEG, Asperger's syndrome, autism, maturation, Frontal Lobe

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