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L'EEG de l'enfant dyspraxiqueThe EEG of dyspraxic children☆

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Abstract

1.

1. The relatively uncommon syndrome of infantile dyspraxia is characterized by motor discordance and a deficiency of the spatial component of intelligence; normal or superior verbal intelligence contrasts with an important deficit in spatial operations; disturbances of motricity and of the body scheme are often associated.

After a neuro-psychiatric investigation focused on disturbances of language and psychomotricity, twenty-five cases of typical dyspraxia were selected from a population of 200 non-epileptic, non-encephalopathic and non-defective children, aged 5–16 years; the EEG data from these twenty-five subjects were compared with those of the remaining population (175 children) and of a normal control group (300 children).

2. Among the EEG variables assessed three appeared to be closely correlated with the dyspraxic syndrome: posterior asynchrony, lack of spatial differentiation and spike foci. These often associated variables were found with a statistically significant frequency in the dyspraxic group, not only in comparison with the

normal population, in which they were exceptional, but also in comparison with the remaining population of neuro-psychiatric patients.

3. In the dyspraxic child there was no relationship between these three variables and age in the age range considered. In the remaining population the posterior asynchrony occurred preferentially between 7 years 6 months and 11 years 6 months of age.

4. In the dyspraxic child these EEG variables had no relationship with the IQ (defective subjects with an IQ < 80 being excluded); in the remaining population, on the other hand, these same variables were seen preferentially in the groups with the lowest IQs (IQ = 80–90).

5. Some electro-clinical relationships were confirmed: between occipital spike foci and visual disturbances; between temporo-central foci and motor disturbances and between lack of spatial differentiation and significant tonico-motor disturbances.

The electro-clinical correlate of posterior asynchrony seems to be essentially the disharmony of maturation of symbolic functions; in the dyspraxic child disturbances of the body scheme are dominant when the asynchrony is not associated with a focus.

6. The association of the three variables in the same record is shown to correspond constantly with the dyspraxic syndrome. This is important in diagnosis and in directing therapy.