

Behavioural changes caused by diffuse intrinsic pontine glioma

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This five-year-old girl presented with a history of two weeks of behavioural changes (irritability, aggressiveness and school problems). No underlying cause was found on psychiatric assessment. In the following 5 days, she presented a left sixth nerve palsy and ataxic gait and then she was referred to the neurosurgery team. Magnetic resonance imaging showed a diffuse intrinsic pontine glioma – DIPG – (Figures A and B). Radiotherapy was then started.

DIPG accounts for 10% of childhood brain tumours. Most common signs at presentation include corticospinal tract deficits, cranial nerve palsies and ataxia. The brainstem was not regarded as a structure involved in complex affective behaviour, but today it is well established that cerebocerebellar and cerebellum-cerebral connections play a role in affective and cognitive behavioural.¹ Actually, behavioural

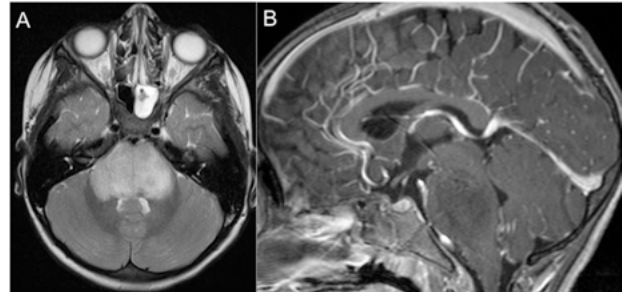


FIGURE. Diffuse intrinsic pontine glioma characterized by a hyperintensity on T2 (A, axial view) and iso-hypointensity on T1 weighted MRI (B, sagittal view). In this case, the lesion did not have significant contrast enhancement.

changes are present in only 5% of the cases.^{2,3} However, in children with unexplainable behavioural changes, DIPG should be considered as a differential diagnosis.

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