Teaching NeuroImages: Brain MRI and FDG-PET in malformations of cortical development and hippocampal hypoplasia

A 16-year-old intellectually normal woman, with a history of febrile seizures, presented with focal seizures. MRI showed several regions of polymicrogyria/pachygyria, cortical heterotopia, and left hippocampal hypoplasia, associated with (interictal) FDG-PET hypometabolism (figure). Other examinations did not show evidence of tuberous sclerosis.

This case is an example of the frequent coexistence of different types of malformations of cortical development and hippocampal abnormalities, referred to as dual pathology.1,2 Dual pathology is important when making decisions about surgery for refractory epilepsy. Although prolonged febrile seizure is a risk factor of temporal lobe epilepsy, it is not clear whether febrile seizure provokes hippocampal abnormalities.

REFERENCES

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