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**Crossed cerebellar glucose hypermetabolism demonstrated  
using PET in symptomatic epilepsy  
—Case report—**

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A 65-year-old male with an old cerebral contusion in the frontal lobes had suffered from status complex partial seizures. Ictal positron emission tomography with an F-18 fluorodeoxyglucose ( $^{18}\text{F}$ FDG-PET) scan revealed hypermetabolism in the frontal, temporal and parietal lobes and the contralateral cerebellar hemisphere. The patient underwent a next-day PET scan with the  $^{15}\text{O}$ -labeled gas inhalation technique, which showed mild hyperperfusion and oxygen hypermetabolism in these areas. An interictal  $^{18}\text{F}$ FDG-PET scan 17 days after the initial epilepsy demonstrated glucose hypometabolism of the frontal, temporal and parietal lobes and the contralateral cerebellar hemisphere. Increased glucose metabolism on the ictal PET scan and decreased glucose metabolism on an interictal PET scan in the epileptogenic supratentorial zones and the contralateral cerebellar hemisphere are interesting observations for understanding the pathophysiology in long-standing partial seizures.

**Key words:** epilepsy, crossed cerebellar hypermetabolism, crossed cerebellar hyperperfusion, PET (positron emission tomography)