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IMAGE OF THE MONTH

Nuclear imaging in proliferative angiopathy

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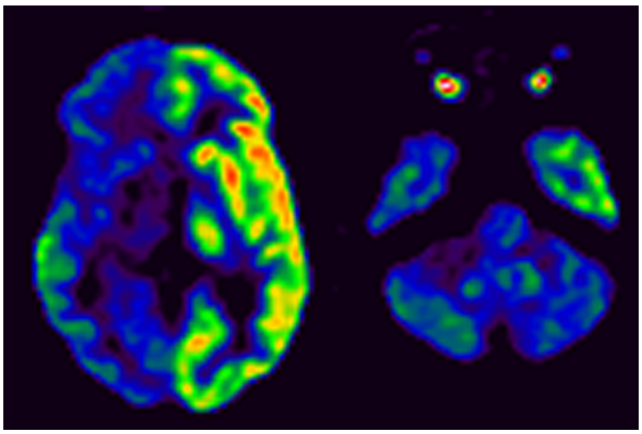
This 37-year-old man was referred for an ^{18}F-FDG PET scan of the brain. His medical history mentioned a large arteriovenous malformation (AVM) related to a slowly progressive angiopathy in the right hemisphere, which was left untreated. Recently, he had complained of recurrent transient hyperaesthesia of his left hand and face. MRI showed an elaborate, diffuse vascular network in the right hemisphere, both supra- and infratentorial, without signs of acute ischaemia or infarction. Digital subtraction angiography (DSA) showed an extensive vascular malformation with low-grade arteriovenous shunting in the right hemisphere, right hemicerebellum and to a lesser extent in the medial part of the occipital lobe on the left side.

To evaluate the brain metabolism of the right hemisphere, an ^{18}F-FDG PET scan of the brain was performed. The scan showed diffuse moderate to severe hypometabolism of the entire right hemisphere, the basal ganglia and less pronounced the left side of the cerebellum, the latter suggesting a crossed cerebellar diaschisis. The left hemisphere showed normal metabolism.



Cerebral proliferative angiopathy is a rare entity, marked by a diffuse lobar or holohemispheric network of arteriovenous shunting, and differs from other AVMs in its angiomorphology, histology, epidemiology, natural history and clinical presentation [1]. After establishing the diagnosis by MRI and DSA [2], FDG PET may be useful to assess the degree and extent of cerebral metabolic involvement in patients with AVM [3].

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