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【 PICTURES IN CLINICAL MEDICINE 】

Cerebellar Hyperintensity Lesions on Diffusion-weighted MRI in MELAS

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Key words: mitochondrial myopathy, encephalopathy, lactic acidosis, and stroke-like episodes (MELAS), cerebellar lesions, diffusion-weighted imaging (DWI), magnetic resonance imaging (MRI)

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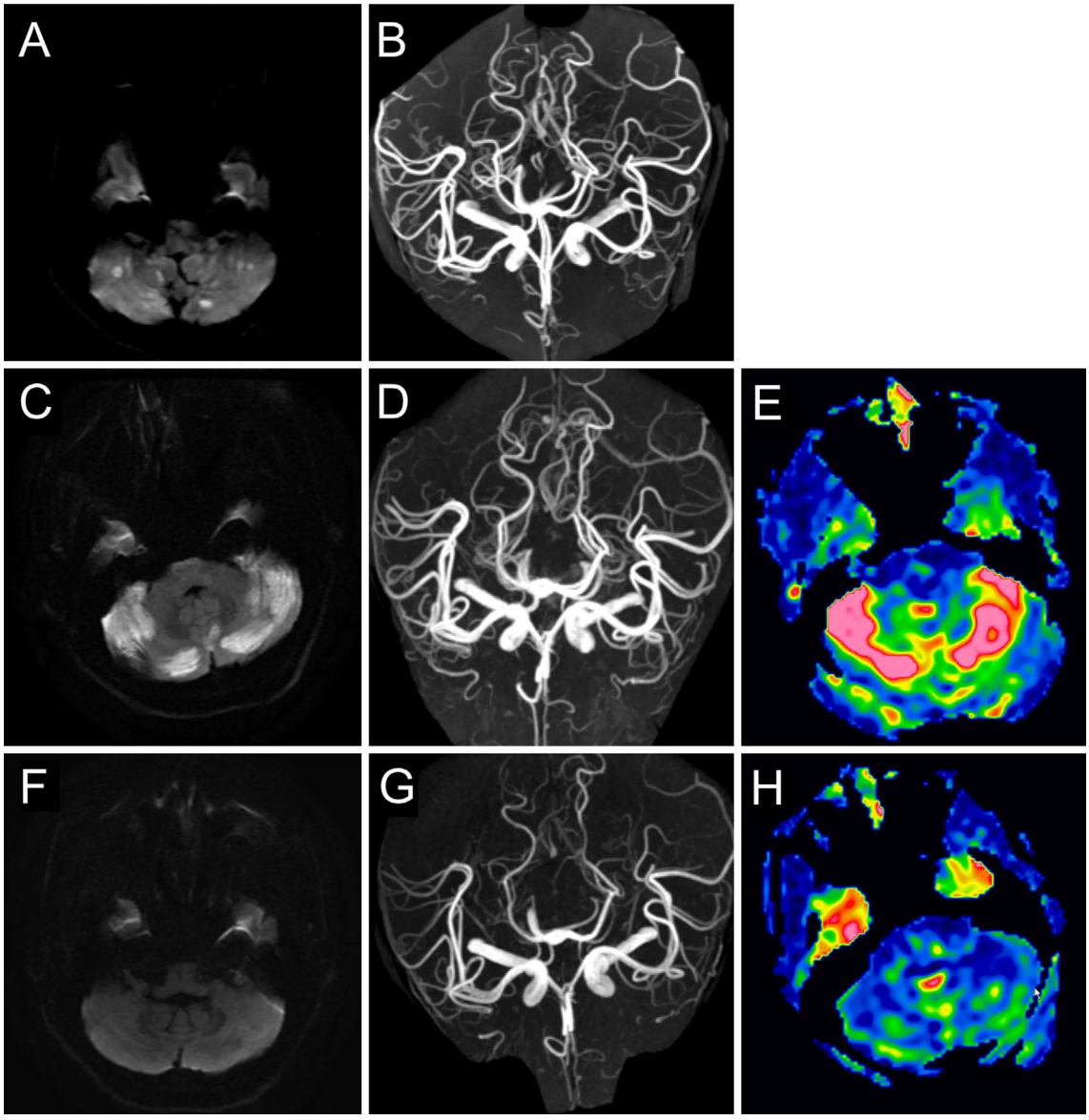

Picture.

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A 24-year-old woman developed headache and nausea. On the diffusion-weighted MRI, scattered hyperintense lesions were recognized in the cerebellum (Picture A), and magnetic resonance angiography showed the dilatation of all of the vessels (Picture B). After 7 days, the cerebellar hyperintensity lesions on DWI were observed to have increased in size (Picture C). The dilatation of the vessels remained (Picture D) and hyperperfusion of cerebellar blood flow was detected by arterial spin labeling (Picture E). A mitochondrial DNA analysis revealed m.3243A>G mutation, leading to the diagnosis of mitochondrial myopathy, encephalopathy, lactic acidosis and a stroke-like episode (MELAS) (1). After 6 months, the lesions on DWI and hyperperfusion of the cerebellum improved (Picture F-H).

Stroke-like lesions in MELAS are usually found in the occipital, temporal and parietal lobes (2), but are rarely found in the cerebellum, although the pathophysiology underlying the distribution of the lesions remains unclear. This case was characterized by the cerebellar lesions.

The authors state that they have no Conflict of Interest (COI).

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