



Figure. (A) Postcontrast sagittal T1-weighted image: grapefruit-shaped unenhancing cystic lesions in the right thalamomesencephalic region and cerebellar peduncle, with mass effect, consistent with tumefactive perivascular spaces. (B) fluid-attenuated inversion recovery, (C) diffusion-weighted images: bright signal next to the right peduncular cyst, and (D) apparent diffusion coefficient (ADC) map: decreased ADC suggesting associated juxta-cystic acute ischemic lesion.

Acute mesencephalic stroke associated with dilated cystic perivascular spaces

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A 15-year-old girl presented with sudden onset of left hemiparesis and hypoesthesia, with ipsilateral hyperreflexia and dysarthric speech. Serum levels of antinuclear antibodies were moderately increased. No other stroke risk factor or clotting disorder

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was found. MRI findings one day after stroke onset were consistent with thalamomesencephalic cystic dilation of perivascular spaces (DPVS)¹ together with an acute focal ischemic lesion adjacent to a large mesencephalic cyst (figure). No vascular malformation was found.

Stroke may have been related to mass effect of focal cystic DPVS compressing penetrating mesencephalic arteries. Alternatively an autoimmune focal necrotizing angiitis could have been present.²

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