Obstructive hydrocephalus due to cavernous dilation of Virchow-Robin spaces

Figure MRI

(A–E) Axial T2, coronal fluid-attenuated inversion recovery, sagittal T1 precontrast and postcontrast, and diffusion-weighted MRI show multiple and confluent cyst-like lesions in the right thalamo-mesencephalic region isointense to CSF, causing obliteration of the aqueduct and no diffusion restriction. (F) Coronal CT reconstruction after ventriculoperitoneal shunt with resolution of hydrocephalus.

A 10-year-old girl presented with a 4-month history of headache and with a normal examination. MRI showed a multi-cyst mesencephalic lesion isointense relative to CSF on all sequences; there was mass effect on the aqueduct with obstructive hydrocephalus (figure). Infections, tumors, and epidermoid cyst were considered, but the characteristic location along the path of a penetrating vessel and magnetic resonance appearance is virtually pathognomonic of cavernous dilation of Virchow-Robin spaces.^{1,2} She received a ventriculoperitoneal shunt with prompt improvement of the headache and the hydrocephalus. Clinical and imaging follow-up examinations revealed no change.

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Disclosure: The authors report no disclosures.

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Neurology 2010;74;1746

DOI 10.1212/WNL.0b013e3181e04312

This information is current as of May 24, 2010

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