Images in Neurology: Giant Tumefactive Perivascular Spaces Associated with Pediatric Hemiplegic Migraine

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Citation


Abstract

A 17 year old right handed female with a past medical history of migraine presented with left hemisensory paresthesias and transient hemiparesis lasting 2 hours. Diffusion MRI revealed no evidence of acute infarction. Additional MRI sequences demonstrated large non-enhancing cystic structures of the left cerebellum and pons. The patient was placed on daily Topiramate migraine prophylaxis without reoccurrence of symptoms at 2 years.

Giant tumefactive perivascular spaces, otherwise known as prominent Virchow-Robin spaces, are pial-lined structures containing interstitial fluid and penetrating arteries/arterioles.1-2 They may be confused with cystic neoplasms and can occasionally be associated with headache and hydrocephalus. This case illustrates the importance of distinguishing enlarged perivascular spaces from a vascular malformation or cystic neoplasm; obviating the need for neurosurgical intervention.

CASE REPORT

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Figure 1

Figure 1: A. Axial diffusion weighted MRI obtained 2 hours after symptom resolution revealed no restriction to suggest infarction. B. Coronal T2 weighted MRI shows fluid isointense lesions in the left cerebellar white matter. C. Axial post-contrast T1 MRI images demonstrate lack of contrast enhancement and extension into the left dorsal pons and the left middle cerebellar peduncle. D. MR angiogram multiplanar image projection shows a normal circle of Willis.

References

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Author Information

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