Headache with Midline Shift: An Uncommon Presentation of Sarcoidosis

Jennifer Y. Wang, MD and David F. Jacobson, MD, FACP

Department of Internal Medicine, Santa Clara Valley Medical Center, San Jose, CA, USA.

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A 51-year-old African American woman presented with 6 months of progressively worsening left frontal headaches, 1 week of blurred vision in her left eye, and 1 day of nausea and vomiting. She denied other neurologic or respiratory symptoms.

Examination revealed decreased visual acuity and a mild afferent pupillary defect in the left eye. MRI of the brain revealed a dural-based mass centered on the left sphenoid wing with significant vasogenic edema and midline shift (Fig. 1). Computed tomography of the chest demonstrated multiple opacities in the upper and mid-lung fields and bilateral mediastinal and hilar lymphadenopathy. Further workup was negative, and biopsy of the brain lesion revealed non-caseating granulomatous inflammation consistent with sarcoidosis.

Neurologic complications occur in only 5–10 % of sarcoidosis cases, and may not be associated with other systemic manifestations.¹ The most common presenting symptom is cranial neuropathy, most frequently of the facial or optic nerve.¹ Leptomeningeal disease accounts for 10–20 % of neurosarcoidosis, and can manifest as aseptic meningitis or a dural mass lesion, as in this patient.²

Our patient improved rapidly with corticosteroids (Fig. 2), which is the first-line therapy for neurosarcoidosis. Combination therapy with TNF-alpha antagonists and steroid-sparing agents may be considered in refractory or severely disabling cases.^{1, 2}

Figure 1 Coronal T1-weighted MRI scan of the brain with gadolinium enhancement, initial presentation. Arrow indicates dural-based mass over the left sphenoid wing.

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Figure 2 Coronal T1-weighted MRI scan of the brain with gadolinium enhancement, status post 4 weeks of high-dose corticosteroid therapy. Significant decrease in size of the dural-based mass (arrow) and resolution of midline shift are noted.

Corresponding Author: David F. Jacobson, MD, FACP; Department of Internal Medicine Santa Clara Valley Medical Center, 751 South Bascom Avenue, San Jose, CA 95128, USA (e-mail: david.jacobson@hhs.sccgov.org).

Compliance with Ethical Standards:

Conflict of Interest: The authors declare that they have no conflict of interest.

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