Clinical Images

Raeder's Paratrigenital Syndrome: Headache and Horner's Lacking Anhidrosis

Michael Santos, MD¹, Kaleen Burton, MS-4², and Brian McGillen, MD¹

¹Department of Medicine, Penn State Milton S Hershey Medical Center, Hershey, PA, USA; ²Pennsylvania State College of Medicine, Hershey, PA, USA.

KEY WORDS: Raeder's syndrome; headache; parapharyngeal mass; oculosympathetic paresis.

J Gen Intern Med 31(9):1102–3

DOI: 10.1007/s11606-016-3642-1

© Society of General Internal Medicine 2016

Figure 1. Left-sided ptosis and miosis with a right pupil size of 5 mm compared to 2 mm on the left. He had diminished sensation in the left V₁ distribution.

Figure 2. Contrast-enhanced CT scan of the neck showing a parapharyngeal mass (blue arrow) causing narrowing of the internal carotid artery.

A 61-year-old man with alcoholic cirrhosis, hepatocellular carcinoma, and a smoking history presented with 3 months of blurred vision, periorbital headache and 10-pound weight loss. On exam, he had left-sided ptosis, miosis (Fig. 1) and diminished sensation in the left ophthalmic trigeminal nerve distribution. Computed tomography (CT) revealed a 1.5 × 2.0 × 3.0 cm parapharyngeal mass encasing the left internal carotid artery (ICA) with significant narrowing; however, no dissection (Fig. 2). A CT-guided biopsy showed inflammation and no malignant cells. Aspirate cultures were negative. The etiology was inconclusive, but strongly favored malignancy.

In 1924, J.G. Raeder described ptosis, miosis and headaches in the ophthalmic and maxillary distribution of the ipsilateral

trigeminal nerve in patients with middle cranial fossa pathology, with later reports citing ICA masses or dissection.^{1,2} The symptoms are due to disruption of oculosympathetic fibers coursing along the ICA to the trigeminal ganglion.¹ The distinction from classic Horner's is sparing of anhidrosis, because sympathetic fibers coursing along the external carotid artery are uninterrupted, leaving facial sweating intact. The physical exam is unreliable for lesion localization; therefore, this triad should prompt consideration of neuroimaging for ICA dissection, aneurysm or intracranial mass.³

Corresponding Author: Michael Santos, MD; Department of Medicine Penn State Milton S Hershey Medical Center, Hershey, PA, USA (e-mail: msantos1@hmc.psu.edu).

Received December 28, 2015

Revised February 4, 2016

Accepted February 12, 2016

Published online February 22, 2016

Compliance with Ethical Standards:

Funding: None.

Prior Presentations: None.

Conflicts of Interest: The authors declare that they do not have a conflict of interest.

REFERENCES

1. **Grimson BS, Thompson HS.** Raeder's syndrome. A clinical review. *Surv Ophthalmol.* 1980;24(4):199–210.
2. **Harrington HJ, Mayman CI.** Carotid body tumor associated with partial Horner's syndrome and facial pain (Raeder's syndrome). *Arch Neurol.* 1983;40(9):564–566.
3. **Davagnanam I, Fraser CL, Miszkiet K, Daniel CS, Plant GT.** Adult Horner's syndrome: a combined clinical, pharmacological, and imaging algorithm. *Eye (Lond).* 2013;27(3):291–298.