Teaching *NeuroImages*: Perineural spread of basal cell carcinoma along the trigeminal nerve

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Figure 1 Coronal image

Post-gadolinium coronal T1 fat-saturated image demonstrates a thickened enhancing left maxillary nerve (arrow).

A 72-year-old man presented with painless left cheek and upper lip paresthesias for 1 year. A basal cell carcinoma had been resected from the left lower lid 2 years before. He had hypesthesia in the left V2-V3 distribution. MRI demonstrated findings suggestive of perineural spread (figures 1 and 2). Local radiation arrested the process.

Perineural spread occurs in 2.5%–5% of head and neck cancers,¹ particularly in basal and squamous cell carcinomas.² This phenomenon commonly affects the trigeminal or facial nerves. The insidious nature of the symptoms and the history of previous resection of a facial tumor should raise the suspicion of this disorder, and help differentiate it from more common trigeminal neuropathies.

Figure 2 Axial image

Postgadolinium axial T1 fat-saturated image shows a thickened maxillary nerve (thin arrow) curving toward the pterygopalatine fossa. There is also linear enhancement along the vidian nerve (dashed arrow) and the mandibular nerve (thick arrow) within foramen ovale.

AUTHOR CONTRIBUTIONS

Dr. Rodriguez: drafting/revising the manuscript, study design, interpretation of data. Dr. Rebello: drafting/revising the manuscript, study design, interpretation of data.

REFERENCES

1. Warden KF, Parmar H, Trobe JD. Perineural spread of cancer along the three trigeminal divisions. *J Neuro-Ophthalmol* 2009;29:300–307.
2. Geist DE, Garcia-Moliner M, Fitzek MM, Cho H, Rogers GS. Perineural invasion of cutaneous squamous cell carcinoma and basal cell carcinoma: raising awareness and optimizing management. *Dermatol Surg* 2008;34:1642–1651.

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