

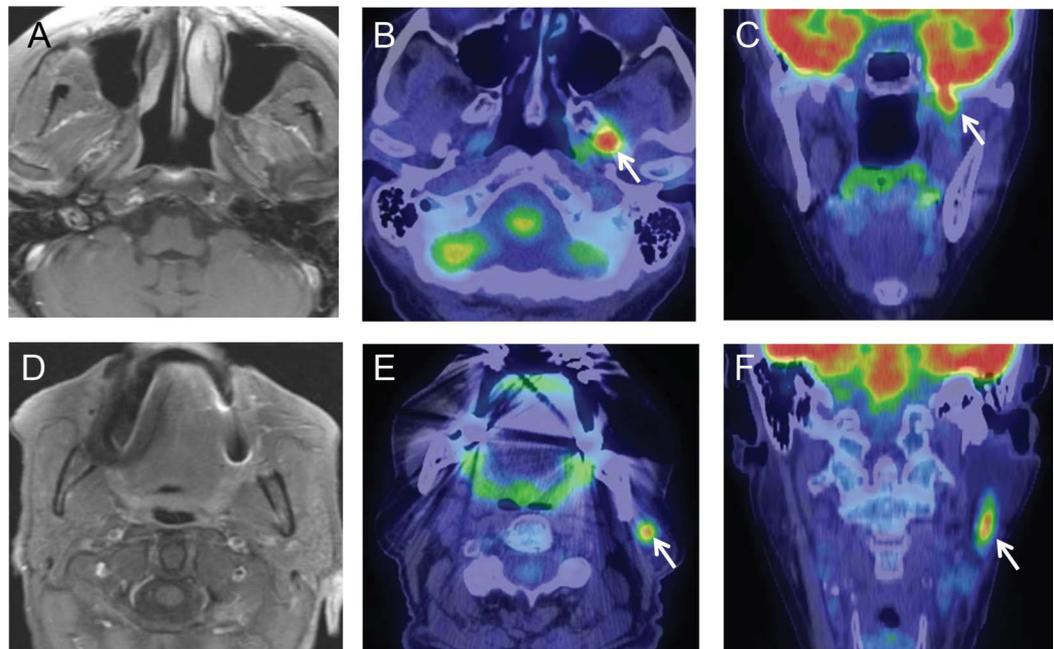
# Teaching NeuroImages:

## Diagnostic utility of FDG-PET in neurolymphomatosis

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**Figure** Face, orbit, and neck imaging



Axial MRI T1 gadolinium images without any contrast enhancement at the level of the trigeminal nerve (A) or parotid gland (D). PET reveals a focus of intense fluorodeoxyglucose (FDG) avidity extending through the foramen ovale along the course of the left V3 branch of the trigeminal nerve in both axial (B) and coronal (C) cuts, consistent with perineural spread of disease. Axial (E) and coronal (F) cuts show increased FDG activity in the left parotid gland.

A 70-year-old woman with a history of non-Hodgkin lymphoma presented with left-sided facial pain. MRI of the face, orbit, and neck was negative (figure). A week later, she developed hypesthesia in a V3 distribution. Repeat MRI was again non-diagnostic but fluorodeoxyglucose (FDG)-PET showed increased uptake along the left V3 branch of the trigeminal nerve, as well as in the parotid gland. Biopsy of the left parotid confirmed recurrent lymphoma.

Neurolymphomatosis is a rare manifestation of hematologic disease and diagnosis is often delayed.<sup>1</sup> Our case illustrates the utility of FDG-PET in establishing the diagnosis of neurolymphomatosis when suspicion is high but MRI is unrevealing.<sup>2</sup>

### AUTHOR CONTRIBUTIONS

Drs. Toledano, Garza, and Pittock made substantive contributions to the design of the study and drafting of the manuscript. Drs. Siddiqui and Thompson made substantive contributions to the revision of the manuscript.

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### DISCLOSURE

The authors report no disclosures relevant to the manuscript. Go to [Neurology.org](http://Neurology.org) for full disclosures.

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