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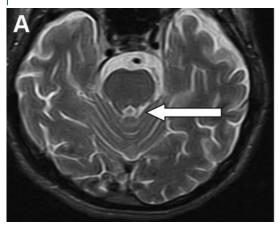
# Teaching Neuro *Image*: Posttraumatic palatal tremor

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Figure

T2-weighted axial MRIs showing left superior cerebellar peduncle atrophy due to remote diffuse axonal injury (A, arrow) resulting in enlargement and increased signal intensity of the right inferior olivary nucleus suggesting hypertrophic olivary degeneration (B)





A 56-year-old man with head injury, loss of consciousness, and normal head CT 6 weeks prior presented with persistent headache. No neurologic deficit was elicited on examination except for involuntary rhythmic movements of the soft palate, from which he was asymptomatic (video on the *Neurology*® Web site at www. neurology.org). In particular, he did not complain of ear clicks, and no treatment was offered. MRI showed foci of remote diffuse axonal injury including the left superior cerebellar peduncle (figure, A). The right inferior olivary nucleus was enlarged and hyperintense on T2-weighted images (figure, B).

Symptomatic palatal tremor occurs due to transsynaptic hypertrophic degeneration of the inferior olivary nucleus secondary to lesions involving the contralateral dentate nucleus, superior cerebellar peduncle, or ipsilateral central tegmental tract within the brainstem (Guillain-Mollaret triangle).<sup>1</sup>

#### **REFERENCE**

 Goyal M, Versnick E, Tuite P, et al. Hypertrophic olivary degeneration: metaanalysis of the temporal evolution of MR findings. Am J Neuroradiol 2000;21:1073–1077.

Supplemental data at www.neurology.org

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