

Magnetic Resonance Imaging Findings in Oculopalatal Myoclonus

Guy G. Massry, M.D.,
and Sophia M. Chung, M.D.

Department of Ophthalmology, Anheuser-Busch Eye Institute, Saint Louis University Health Sciences Center. Supported in part by an unrestricted grant from Research to Prevent Blindness, Inc., New York, New York.

Inquiries to Sophia M. Chung, M.D., Anheuser-Busch Eye Institute, 1755 S. Grand Blvd., St. Louis, MO 63104.

Palatal myoclonus, an involuntary, continuous, rhythmic movement disorder of the soft palate, may be associated with simultaneous jerky, nystagmoid movements of the oculomotor system.¹ This constellation of findings is referred to as oculopalatal myoclonus. Movements of the tongue, facial muscles, pharynx, larynx, and diaphragm may also occur.

Palatal myoclonus, and its variants, is almost always associated with hypertrophic degeneration of the inferior olivary nucleus.² The reverse, however, need not occur. This lesion is thought to be a late complication of cerebellar or brainstem disease, such as stroke or hemorrhage, involving the dentatorubro-olivary tract

(Guillain-Morraret triangle).¹ Transneuronal degeneration of the inferior olivary nucleus resulting from interruption of the dentatorubro-olivary tract is the proposed mechanism of inferior olivary disease.³ An interval of ten to 11 months between primary brainstem lesion and onset of palatal myoclonus is typical, with a reported range of less than one month to 49 months.⁴

There have been 17 reported cases of magnetic resonance imaging documentation of inferior olivary hypertrophy, nine of which also had the clinical diagnosis of palatal myoclonus.² The patients were described in neurologic, neuroradiologic, and radiologic literature.² We treated a patient with oculopalatal myoclonus and inferior olivary hypertrophy demonstrated with magnetic resonance imaging.

We examined a 65-year-old man who had a one-month history of "jumping eyes," drooling, and difficulty with speaking and swallowing. He had had a brainstem stroke four months previously. He was found comatose, and on awakening complained of bilateral blindness. T₂-weighted magnetic resonance imaging, done soon after the patient's stroke, demonstrated hyperintense lesions in the ventral and dorsal

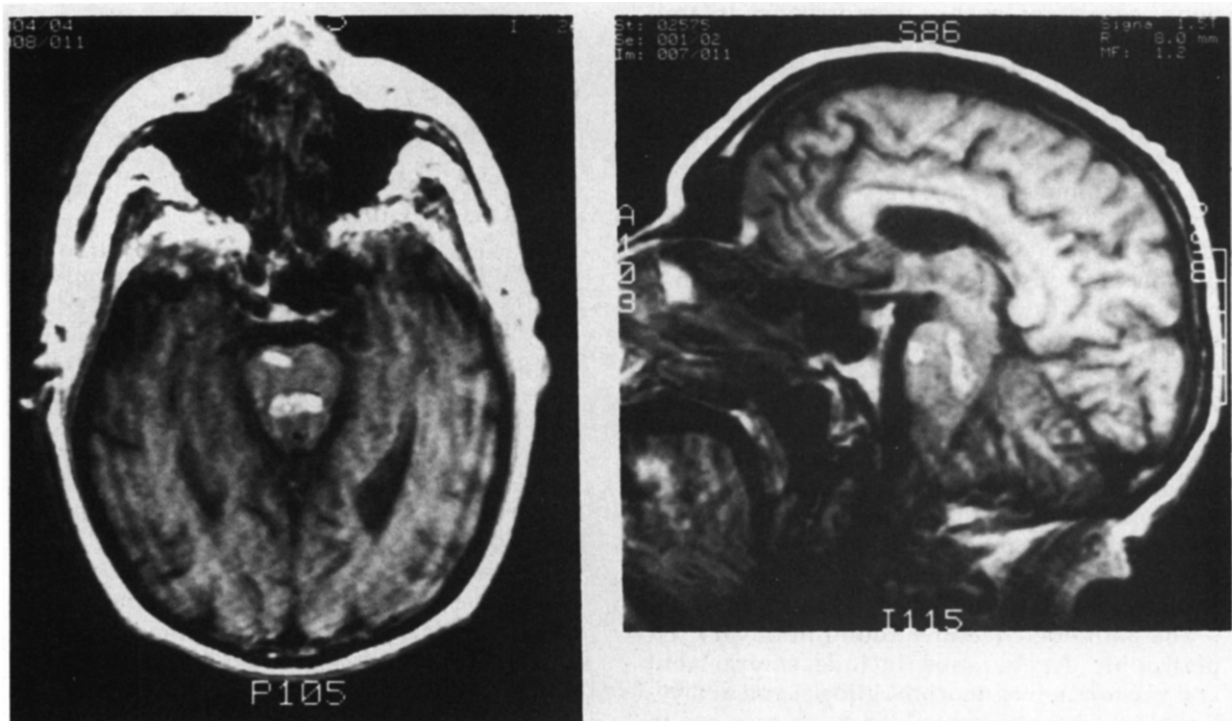


Fig. 1 (Massry and Chung). Left, T₂-weighted axial magnetic resonance imaging at the level of the pons demonstrates hyperintense lesions ventrally and dorsally, consistent with a hemorrhagic infarct. Right, Sagittal view depicts rostral and caudal extension of the dorsal lesion.

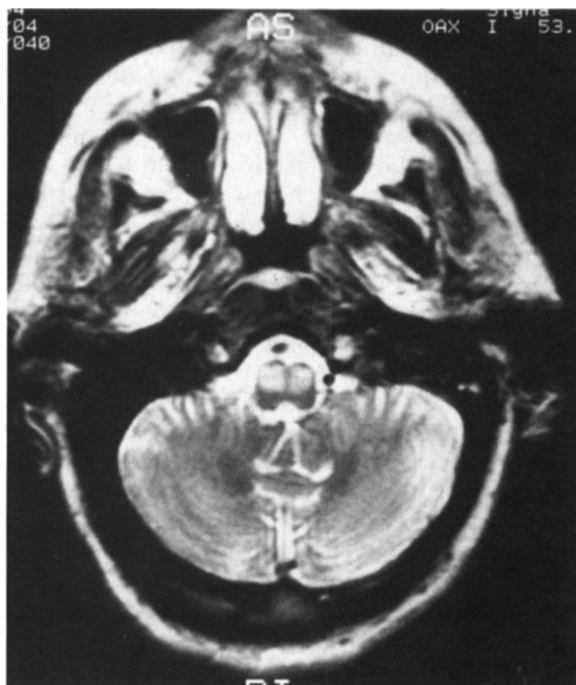


Fig. 2 (Massry and Chung). T₂-weighted axial magnetic resonance imaging shows increased signal intensity of the inferior olivary nucleus.

pons, consistent with a hemorrhagic infarct. The dorsal lesion extended rostrally to the mid-brain and caudally to the medulla (Fig. 1). The patient recovered his vision in two weeks and was doing well until he developed the following symptoms.

On examination, his best-corrected visual acuity was 20/60 in both eyes at distance and 20/30 in both eyes at near. External examination demonstrated involuntary, rhythmic movements of the face and palate, while extra-ocular motility disclosed synchronous vertical nystagmus with a rotary component. There were moderate cataractous changes in both eyes evident on slit-lamp examination. Results of the pupillary and fundus examination, and Goldmann visual fields were within normal limits. A repeat magnetic resonance imaging disclosed resolution of the hemorrhage but increased signal intensity of the inferior olivary nucleus (Fig. 2).

The pathologic features found in olivary hypertrophic degeneration include enlargement and vacuolation of neurons, gliosis, and demyelination.² These changes lead to an increase in mobile water protons and may be responsible for the high signal seen on magnetic resonance imaging.⁵ Because oculopalatal myoclonus oc-

curs almost exclusively with olivary hypertrophic degeneration, magnetic resonance imaging provides an excellent adjunct for diagnosis. Thus, familiarization with the magnetic resonance imaging findings will prove helpful to the ophthalmologist who may encounter this disorder.

References

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Horner's Syndrome After Tonsillectomy

Charles G. Shissias, B.A.,
and Karl C. Golnik, M.D.

Department of Ophthalmology, Storm Eye Institute, Medical University of South Carolina. Supported in part by an unrestricted grant from Research to Prevent Blindness, Inc., New York, New York.

Inquiries to Karl C. Golnik, M.D., Department of Ophthalmology, Medical University of South Carolina, 171 Ashley Ave., Charleston, SC 29425.

A 9-year-old boy, with a history of chronic sinus congestion and an episode of otitis media, underwent tonsillectomy and adenoidectomy for treatment of chronic tonsillitis. The procedure was performed under general endotracheal anesthesia without difficulty or intraoperative complication. Each palatine tonsil was grasped at the superior pole, dissected bluntly down to the base, and then transected with a tonsillar snare in the usual fashion. Bleeding was controlled by figure-of-eight, 2-0 chromic catgut sutures at the superior and inferior poles of each fossa, and with minimal electrocautery.