PATTERNS OF OCULAR OSCILLATION IN OCULOPALATAL TREMOR: IMAGING CORRELATIONS

To the Editor: We read the excellent article on oculopalatal tremor by Kim et al.¹ The authors state that “PT is generated by rhythmic contraction of the levator veli palatini, innervated from the nucleus ambiguus by the facial or glossopharyngeal nerve.”

The levator veli palatini muscle does receive its innervation from the nucleus ambiguus, but by way of the vagus nerve. Some authors feel that the fibers supplying the muscle actually arise from the cranial part of the accessory nerve and find their way to the levator along with the vagus after joining that nerve just distal to the jugular foramen.

The facial nerve’s special visceral efferent fibers arise from the facial nucleus and supply the muscles of facial expression, plus a few others. The glossopharyngeal nerve supplies only one skeletal muscle, the stylopharyngeus.

Craig E. Watson, Detroit, MI

Disclosure: The author reports no conflicts of interest.

Reply from the Authors: We thank Dr. Watson for drawing attention to the dictum that the glossopharyngeal (IXth) nerve supplies only one muscle, the stylopharyngeus, as also taught by our former distinguished Professor of Anatomy, J.C. Boileau Grant.² Dr. Watson states that the levator veli palatini muscle (LVP) receives its innervation from the vagus but not from the facial or IXth cranial nerves.

However, in agreement with our article,¹ further anatomic evidence indicates otherwise. In monkeys, the LVP is innervated by the facial nerve through its greater petrosal branch.³ Study of human fetuses and embryos reveals that the

LVP is innervated by the IXth, but not the vagus, nerve.⁴ There is anatomic variation.

Dissection of adult human cadavers has shown that the LVP receives its motor supply from the IXth nerve in some humans, the IX and the vagus nerves in others, and from the vagus in others.⁵ Motoneurons to the LVP are located in the nucleus ambiguus bilaterally as well as in the ipsilateral retrofacial nucleus, but not in the facial nerve nucleus.⁶

The bilateral innervation of the LVP from the nucleus ambiguus may account for our observation that most of our patients with symmetric palatal tremor had unilateral pseudohypertrophy of the inferior olivary nucleus in keeping with predominantly unilateral damage to the brainstem tegmentum.¹

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Disclosure: The authors report no conflicts of interest.

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1. Kim JS, Moon SY, Choi K-D, Kim J-H, Sharpe JA. Patterns of ocular oscillation in oculopalatal tremor: imaging correlations. *Neurology* 2007;68:1128–1135.
2. Grant JCB. *An Atlas of Anatomy*. Baltimore: Williams and Wilkins; 1956.
3. Ibuki K, Matsuya T, Nishio J, Hamamura Y, Miyazaki T. The course of facial nerve innervation for the levator veli palatini muscle. *Cleft Palate J* 1978;15:209–214.
4. Domenech-Ratto G. Development and peripheral innervation of the palatal muscles. *Acta Anatomica* 1977; 97:4–14.
5. Shimokawa T, Yi S-Q, Izumi A, et al. An anatomical study of the levator veli palatini and superior constrictor with special reference to their nerve supply. *Surg Radiol Anat* 2004;26:100–105.
6. Keller JT, Saunders MC, van Loveren H, Shipley MT. Neuroanatomical considerations of palatal muscles: tensor and levator veli palatini. *Cleft Palate J* 1984;21: 70–75.

CORRECTION

Correspondence: Reading impairment in the neuronal migration disorder of periventricular nodular heterotopia

In a Letter to the Editor by D.H. Sokol et al. (*Neurology*® 2006;66:294) regarding the published article “Reading impairment in the neuronal migration disorder of periventricular nodular heterotopia,” the third correspondent’s name was misspelled. The correct spelling of this correspondent’s name is K.S. Carvalho.

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Correspondence: Reading impairment in the neuronal migration disorder of periventricular nodular heterotopia

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