Although proprioceptive structures seen in antigravity muscles like jaw-closing muscles are lacking in levator palpebrae superioris muscle (LPSM), another antigravity muscle, Müller muscle (MM), may act like one for LPSM.1 We report stretch-induced ephemeral eyelid elevation of the completely ptotic eyelid followed by copious lacrimation in a girl with congenital third nerve palsy, speculate about the neuronal pathways, and educe its diagnostic and therapeutic implications.

Report of a Case. A 10-year-old girl had complete drooping of the left eyelid with the globe fixed in abduction (Figure 1). Her birth and family history were unremarkable. Aided visual acuity was 20/20 OD and 20/60 OS. An isolated left complete pupillary-involving third nerve palsy with no signs of aberrant regeneration was noted (Figure 2). On pulling the left upper eyelid margin down with her finger, her ptotic eyelid reflexively elevated by 6 to 8 mm, drifting back in 30 to 50 seconds. Profuse lacrimation followed (Figure 3 and video, http://www.archophthalmol.com). The pupil, other muscles supplied by the third nerve, and the contralateral eyelid were unaffected. The phenomenon could be repeated immediately thereafter and was not abolished by local anesthesia. There was no jaw wink or associated salivation. Results from the rest of the examination and magnetic resonance imaging of the brain and orbits were unremarkable.

Comment. Proprioceptive structures, muscle spindles, and palisade endings exist in the global but not orbital layer of human extraocular muscles. Distal myotendinous junctions, the areas traumatized in most strabismus procedures, are most richly endowed. The information they relay, however, remains controversial.2 Levator

![Video available online at www.archophthalmol.com](http://www.archophthalmol.com)
Proprioceptive ephemeral eyelid elevation and lacrimation induced by stretching of the eyelid (MM) has not been reported to our knowledge. The phenomena, harnessed and modulated pharmacologically, may have tremendous diagnostic and therapeutic potential in entities like dry eye, thyroid eye disease, ocular myasthenia, pathological eyelid retraction, acquired ptosis, eyelid trauma, surgery involving the LPSM aponeurosis, and numerous neuromuscular disorders. Alleviation of eyelid retraction in thyroid eye disease by triamcinolone acetone injections in MM is a case in point.6

As the proprioceptive fibers run through the lacrimal gland and nerve,1 the lacrimation that follows could be due to cross talk between proprioceptive or sympathetic fibers with secretomotor fibers from superior salivatory nucleus. Sparing of other extraocular muscles supplied by the third cranial nerve further buttresses proprioceptive underpinnings. Such a monosynaptic reflex, conterminous with a jaw-jerk reflex, is quite distinct from motor miswiring resulting in a jaw-winking phenomenon in congenital ptosis.

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