Teaching Video NeuroImages: Useful bedside testing for myasthenia gravis

The phenomenon of enhanced ptosis

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Figure The phenomenon of enhanced ptosis

(A) Complete ptosis of the left eyelid and semi ptosis of the right. Observe the contraction of the frontalis muscles in an attempt to compensate ptosis. (B) Left eyelid manual elevation caused exacerbated ptosis on the right (enhanced ptosis). Contraction of frontalis muscles is still present.

During examination of a 62-year-old woman with a diagnosis of myasthenia gravis, left eyelid manual elevation caused exacerbated ptosis on the right (enhanced ptosis) (figure). According to Hering law, there is approximately equal innervation of the levator palpebrae superioris muscles in both eyelids.¹ In an asymmetric ptosis, the motor impulses increase to compensate ptosis on the more affected side but also flow to the contralateral eyelid, which mitigates ptosis on that side. With manual elevation of the more affected eyelid, the need to sustain eyelid elevation is relieved, and there is an attenuation of these motor impulses causing ptosis enhancement of the other eyelid (video 1).²

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Video

Teaching slides

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Disclosure

The authors report no disclosures relevant to the manuscript. Go to Neurology.org/N for full disclosures.

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Euripedes Gomes de Carvalho Neto, MD	Irmandade da Santa Casa de Misericórdia de Porto Alegre, Universidade Federal de Ciências da Saúde de Porto Alegre, Brazil	Acquisition of data, literature review
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Appendix (continued)

Name	Location	Contribution
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Francisco Tellechea Rotta, MD	Irmandade da Santa Casa de Misericórdia de Porto Alegre, Brazil	Critical revision of manuscript for intellectual content, study supervision

References

1. Averbuch-Heller L, Poonyathalang A, von Maydell RD, Remler BF. Hering's law for eyelids: still valid. *Neurology* 1995;45:1781–1783.
2. Kumar S, Sharma VK. Unmasking ptosis in both eyes. *N Engl J Med* 2017; 377:e1.

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