Teaching Video NeuroImage: Resolution of Ptosis After Forceful Eye Closure

Bedside Diagnosis of Myasthenia Gravis

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Figure Bienfang Test

Fatigable eyelid ptosis (A), forceful eye closure (B), and resolution of ptosis (C).

A 72-year-old man presented with fluctuating right eyelid ptosis. During sustained gaze fixation without blinking, the blepharoptosis progressively increased to almost complete ptosis, because of fatigable weakness of the levator palbrae superioris (LPS) muscle. Noticeable is the eyebrow lifting due to compensatory frontalis muscle contraction (figure). The patient was asked to close his eyes forcefully for 30 seconds (Bienfang test) (figure). Immediately the ptosis resolved (figure; video). During maximal voluntary contraction of the orbicularis oculi (OO), the antagonistic LPS is inhibited and relaxes. On eyelid opening, the LPS is fully recovered, while the OO is fatigued. The sensitivity and specificity of the Bienfang test is 94% and 91%, respectively.^{1,2} The diagnosis was acetylcholine receptor–positive ocular myasthenia gravis.

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Disclosure

The authors have nothing to disclose. Go to [Neurology.org/N](https://www.neurology.org/N) for full disclosures.

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Vasiliki Zouvelou, MD, PhD	1st Neurology Department, Eginition Hospital, National and Kapodistrian University of Athens, Greece	Design of the study, analysis and interpretation of the data, drafting and revising the manuscript, multimedia files creation
Ariadne Daponte, MD	1st Neurology Department, Eginition Hospital, National and Kapodistrian University of Athens, Greece	Analysis and interpretation of the data, revising the manuscript, multimedia files creation

References

1. Apinyawasisuk S, Zhou X, Tian JJ, Garcia GA, Karanjia R, Sadun AA. Validity of forced eyelid closure test: a novel clinical screening test for ocular myasthenia gravis. *J Neuroophthalmol*. 2017;37(7):253-257.
2. Remington LA. Ocular and lacrimal system. In: *Clinical Anatomy and Physiology of the Visual System*, 3rd ed. Butterworth-Heinemann: 2011;159-181.

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