Title: Teaching Video NeuroImages: Resolution of Ptosis After Forceful Eye Closure: Bedside Diagnosis of Myasthenia Gravis

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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 fatiguable weakness of the levator palpebrae superioris (LPS) muscle. Noticeable is the eyebrow lifting due to compensatory frontalis muscle contraction (Figure 1A). The patient was asked to close his eyes forcefully for 30 seconds (Bienfang’s test) (Figure 1B). Immediately the ptosis resolved (Figure 1C). 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 Bienfang’s test is 94% and 91%, respectively [1,2]. The diagnosis was acetylcholine receptor-positive ocular myasthenia gravis.
Appendix 1: Authors

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<thead>
<tr>
<th>Name</th>
<th>Location</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vasiliki Zouvelou MD, PhD</td>
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<td>Design of the study, analysis and interpretation of the data, drafting and revising the manuscript, multimedia files creation</td>
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Teaching Slides - [http://links.lww.com/WNL/B395](http://links.lww.com/WNL/B395)

Video 1 - [http://links.lww.com/WNL/B396](http://links.lww.com/WNL/B396)

Reference


Figure legend

Figure 1 Title: Bienfang’s test

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

![Figure 1](image)

Video legend

Resolution of eyelid ptosis in a 72-year-old man with ocular myasthenia gravis. Note the fatiguable, almost complete, right eyelid ptosis and the full recovery after forceful eye closure

Text to the video

The patient is asked to sustain primary gaze fixation without blinking. When the right eyelid ptosis is almost complete (time: 41 sec), the patient is asked to squeeze his eyes tightly for 30 sec. Then he is asked to open his eyes (time: 1.25 min) and to fixate directly ahead. Resolution of eyelid ptosis is clearly demonstrated.
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