

Teaching Video NeuroImage: Reflex Facilitation in Lambert-Eaton Myasthenic Syndrome

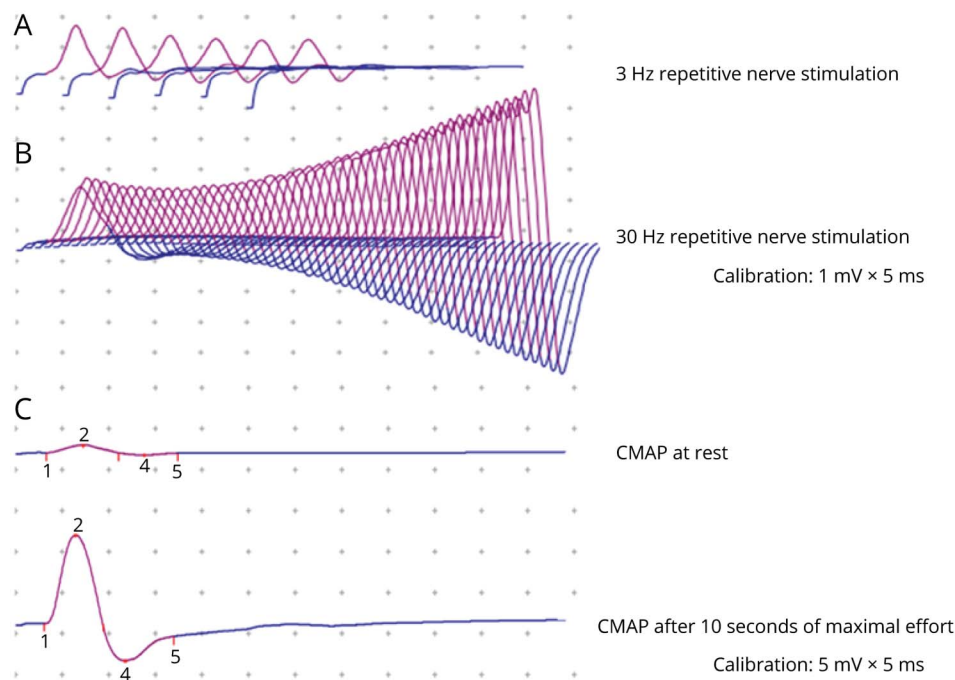
Antonio Edvan Camelo-Filho, MD,* Eduardo de Paula Estephan, MD, PhD,* Carlos Otto Heise, MD, PhD, and Edmar Zanoteli, MD, PhD

Neurology® 2021;97:e1168-e1169. doi:10.1212/WNL.0000000000012180

Correspondence

Dr. Camelo-Filho
antonio.edvan@hc.fm.usp.br

Figure Neurophysiologic Findings at Abductor Digiti Minimi



(A) Low-frequency repetitive nerve stimulation shows a decremental response (31.6%) at 3 Hz. (B) High-frequency repetitive nerve stimulation shows an incremental response (164%) at 30 Hz. (C) Compound muscle action potential amplitude increment of 400% after a 10-second exercise (postexercise facilitation).

A 41-year-old woman presented with progressive fluctuating lower limb weakness, urinary incontinence, and dry eyes and mouth. Physical examination revealed proximal flaccid tetraparesis (Medical Research Council 4). The patellar reflex was absent, but with postexercise facilitation (video 1). Eyelid and eye movements were normal. Electroneuromyography revealed a presynaptic neuromuscular junction disorder (figure). Antibodies to anti-voltage-gated calcium channels were positive. Periodic cancer screening, including whole-body FDG-PET, was negative during 2 years of follow-up. These findings were consistent with non-paraneoplastic Lambert-Eaton myasthenic syndrome.¹ The patient had a good response to IV immunoglobulin. The presence of ascending muscle weakness, autonomic dysfunction, and postexercise facilitation of reflexes should raise suspicion for the diagnosis.

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Study Funding

The authors report no targeted funding.

*These authors contributed equally to this work.

From the Department of Neurology (A.E.C.-F., E.d.P.E., C.O.H., E.Z.), Faculdade de Medicina da Universidade de São Paulo; and Department of Neurology (E.d.P.E.), Faculdade de Medicina Santa Marcelina, São Paulo, Brazil.

Go to Neurology.org/N for full disclosures. Funding information and disclosures deemed relevant by the authors, if any, are provided at the end of the article.

Disclosure

The authors report no disclosures relevant to the manuscript. Go to [Neurology.org/N](https://www.neurology.org/N) for full disclosures.

Appendix Authors

Name	Location	Contribution
Antonio Edvan Camelo-Filho, MD	Universidade de São Paulo, Brazil	Case report project (conception, organization, execution), writing of the first draft, review and critique
Eduardo de Paula Estephan, MD, PhD	Universidade de São Paulo; Faculdade de Medicina Santa Marcelina, São Paulo, Brazil	Case report project (conception, organization, execution), writing of the first draft, review and critique

Appendix *(continued)*

Name	Location	Contribution
Carlos Otto Heise, MD, PhD	Universidade de São Paulo, Brazil	Electrophysiology study report, writing of the final draft, final review and critique
Edmar Zanoteli, MD, PhD	Universidade de São Paulo, Brazil	Case report project (conception, organization, execution), writing of the final draft, final review and critique

Reference

1. Kesner VG, Oh SJ, Dimachkie MM, Barohn RJ. Lambert-Eaton myasthenic syndrome. *Neurol Clin.* 2018;36(2):379-394.

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Neurology 2021;97:e1168-e1169 Published Online before print May 26, 2021
DOI 10.1212/WNL.0000000000012180

This information is current as of May 26, 2021

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