Teaching Video *NeuroImages*: Pharyngeal stimulus can cause syncope and even cardiac arrest after gastrectomy with vagotomy

Hee Jin Im, MD
Hee Jin Kim, MD
Seung Hoon Song, MD
Hahn Young Kim, MD

Correspondence & reprint
requests to Dr. Kim:
hykimmd@gmail.com

A 56-year-old woman was admitted for recurrent syncope. She went through subtotal gastrectomy with intraoperative vagotomy 1 month prior. She experienced recurrent loss of consciousness for a few seconds when trying to eat or brush her tongue (video on the *Neurology*[®] Web site at www.neurology.org). Syncope in glossopharyngeal neuralgia may be caused by bradycardia related to the glossopharyngeal-vagal reflex.¹ She had no inherent cardiac history such as an atrioventricular block. In our patient, denervation hypersensitivity or synkinesis of the vagus nerve by a glossopharyngeal input might be plausible mechanism. Suppression of the

activation of the hypersensitized nerve by carbamazepine² gradually decreased heart rate fluctuation and syncope.

AUTHOR CONTRIBUTIONS

H. Im: description of the case. H.J. Kim: preparation of the video file. S. Song: preparation of the video file. H.Y. Kim: design of the study, interpretation of the case, and revising the manuscript.

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Supplemental data at
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From the Department of Neurology, Konkuk University School of Medicine, Seoul, Korea.

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