## **Response** to Letter to Editor

## Authors' reply: High-resolution Manometry in Swallow Syncope-Is there a Role?

Sir,

The authors wish to thank our readers for their careful review of our cases<sup>[1]</sup> and bringing up this pertinent issue of possible role of high-resolution manometry (HRM) in diagnostic algorithm of swallow syncope. We completely agree with our readers that although an underlying esophageal structural or functional abnormality is not necessary for the development of swallow syncope, it is prudent to exclude them with thorough esophageal evaluation, of which endoscopy, radiology, and HRM are key components.

Literature suggests an association of several esophageal conditions with swallow syncope, namely, hiatal hernia, gastroesophageal reflux disease with esophagitis and peptic stricture, webs, and carcinoma. There have also been reports of achalasia, diffuse or focal esophageal spasms, and nonspecific dysmotility in patients presenting with swallow syncope. In two out of three cases from Dr. Shaker's group,<sup>[2]</sup> patients had hypertensive lower esophageal sphincter (LES) with high-amplitude contractions ("nutcracker esophagus"), however, it was noted that concomitant electrocardiographic changes could not be documented. There may be a role of HRM in the diagnosis and appropriate management of such subsets of patients.

The readers have appropriately pointed out data suggesting several configurational changes such as drop in gastric fundus/LES pressure or esophageal shortening being associated with nausea. There is even emerging evidence of decreased cardiac vagal tone after a meal affecting the transient LES relaxations,<sup>[3]</sup> but whether these responses are exaggerated in patients with swallow syncope causing them to have bradycardia and cardiac arrhythmias, is yet unclear.

Clinically, the cornerstone to diagnosis of swallow syncope is a patient's history and documented concomitant swallow-induced symptoms with cardiac arrhythmias. Absence of underlying esophageal pathology is not essential for its diagnosis, but may be critical for appropriate treatment of these patients.

## Mohit Girotra, Shashank Garg, Sudhir K. Dutta

Division of Gastroenterology, Department of Medicine, The Johns Hopkins University/Sinai, Hospital Program in Internal Medicine, 2401 W. Belvedere Avenue, Suite 302, Baltimore, MD- 21215, USA

E-mail: girotra.mohit@gmail.com; sdutta@lifebridgehealth.org

## REFERENCES

- Garg S, Girotra M, Glasser S, Dutta SK. Swallow syncope: Clinical presentation, diagnostic criteria, and therapeutic options. Saudi J Gastroenterol 2014;20:207-11.
- Gawrieh S, Carroll T, Hogan WJ, Soergel KH, Shaker R. Swallow syncope in association with Schatzki ring and hypertensive esophageal peristalsis: Report of three cases and review of the literature. Dysphagia 2005;20:273-7.
- Kuo P, Bravi I, Marreddy U, Aziz Q, Sifrim D. Postprandial cardiac vagal tone and transient lower esophageal sphincter relaxation (TLESR). Neurogastroenterol Motil 2013;25:841-e639.

