



## The “trumpeting elephant” sign

Joseph Wilson<sup>1</sup> · Raymond B. Dyer<sup>1</sup>

Published online: 6 February 2019  
© Springer Science+Business Media, LLC, part of Springer Nature 2019

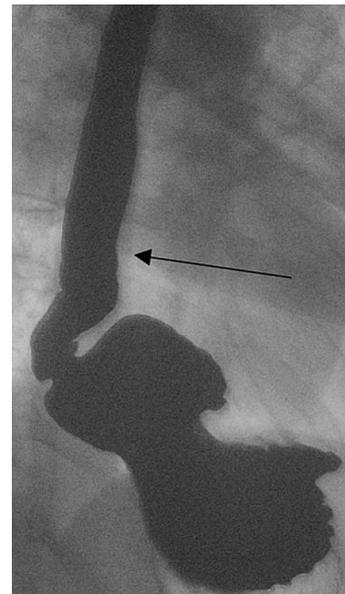
Elephants are often observed to raise their trunks in order to produce a “vocalization,” be it either in anger or under more playful circumstances. A large column of barium refluxing from the proximal stomach and extending superiorly into the esophagus, as seen during a barium upper gastrointestinal series (UGI), has been likened to the appearance of a trumpeting elephant (Fig. 1, 2) [1].

Gastroesophageal reflux disease (GERD) is particularly common in the Western world today, with an estimated prevalence of 10–20% [2]. Fluoroscopic examination of the

esophagus and stomach is widely available, cost effective, and useful for the diagnosis of both GERD and a number of secondary complications of gastroesophageal reflux including reflux esophagitis, mucosal ulceration, esophageal strictures, and esophageal rings [2, 3]. The trumpeting elephant sign is highly specific for GERD, so next time you find yourself in the fluoroscopy suite, be sure to “listen” for the mighty roar of the trumpeting elephant.



**Fig. 1** An African elephant with its trunk held high in mid-trumpet. (Elephant trumpeting in grasslands or chaurs of Corbett National Park at sunset: Aditya Singh. Downloaded from shutterstock.com 1/19/2019 with the artist’s permission. Royalty-free stock photo ID: 56770723)



**Fig. 2** Representative image from an UGI series demonstrating a column of refluxing barium (the elephant’s trunk) (arrow) emanating from the barium-filled, herniated gastric fundus and cardia (the elephant’s head and ear!)

✉ Joseph Wilson  
jcwilson@wakehealth.edu

<sup>1</sup> Department of Radiology, Wake Forest Baptist Medical Center, Wake Forest University School of Medicine, Medical Center Blvd, Winston-Salem, NC 27157, USA

**Funding** None.

### Compliance with ethical standards

**Conflict of interest** The authors declare that they have no conflict of interest.

**Research involving human and animal rights** This article does not contain any studies with human participants or animals performed by any of the authors.

3. Levine M, Carucci L, DiSantis D, Einstein D, Hawn M, Martin-Harris B, et al (2016) Consensus statement of Society of Abdominal Radiology disease-focused panel on barium esophagography in gastroesophageal reflux disease. *AJR* 207: 109-115

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

### References

1. Rowen H, Gyepes M (1988) The “trumpeting elephant” sign of gastroesophageal reflux. *Radiology* 167: 138
2. Levine M, Carucci L (2017) Esophageal abnormalities in gastroesophageal reflux disease. *Abdominal Radiology* 43: 1284-1293