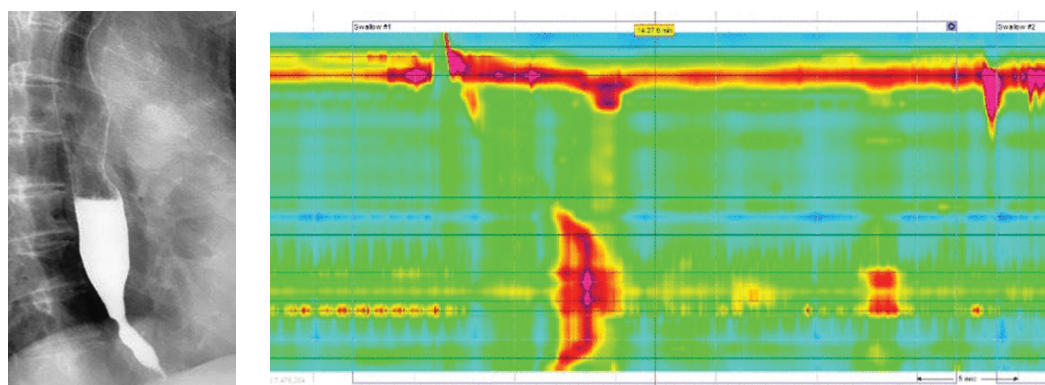


Butterfly Wings Effect on High Resolution Manometry in A Patient with Esophageal Achalasia

Alexandros Ioannou¹, Charalampos Koumentakis¹, Francesco Torresan²

1) Gastroenterology Unit, Alexandra Hospital, Athens, Greece; 2) Gastroenterology Unit, IRCCS Azienda Ospedaliero-Universitaria di Bologna Policlinico di Sant'Orsola-Malpighi, Bologna, Italy



Esophageal achalasia is a motility disorder defined by impaired lower esophageal sphincter (LES) relaxation and absence of esophageal peristalsis, clinically characterized by dysphagia, regurgitation, retrosternal pain, and weight loss. Pathogenetic hypothesis of an autoimmune process triggered by an unidentified cause resulting, in a genetically predisposed subject, in chronic inflammatory process leading to neuronal damage is the most widely accepted [1]. The first diagnostic goal is to exclude, endoscopically or radiologically, a benign or malignant obstruction. Especially, barium esophagogram reveals a “bird beak” appearance due to non-relaxing LES, an esophageal dilation up to sigmoid esophagus and aperistalsis [2]. However, the gold standard for the diagnosis is high resolution esophageal manometry (HRM) due to accuracy with which identifies impaired esophagogastric junction (EGJ) relaxation and objectivity of classifying achalasia into three subgroups according to Chicago Classification criteria [3]. Technical limitations (incomplete swallow protocol, inability of traverse ECJ, sensor and thermal compensation problems) were presented rarely and did not affect diagnostic accuracy especially regarding esophageal achalasia [4, 5].

Herein, we present a 57-year-old man presented with dysphagia in solids and liquids deteriorating the last months and weight loss of 3 kg. A thoracic CT revealed a limit dilatation of the lower esophagus with food residue. Upper endoscopy was performed revealing bubble content and contraction of the LES. A barium esophagogram demonstrated deceleration of esophageal emptying and a bird beak sign indicative of esophageal achalasia (Fig. 1). HRM was performed to evaluate the subtype of achalasia. The catheter could not be intubated,

after many clinical and technical maneuvers (change patient position, overhead hand raise, clockwise rotation along the long axis of the catheter and its reposition), into the stomach because of LES spasticity. It folded back cephalad at this level, producing a mirror image, the characteristic “butterfly wings” appearance of a folded manometry catheter (Fig. 2).

Corresponding author: Alexandros Ioannou,
alexandros.ioannou@studio.unibo.it

Conflicts of interest: None to declare.

REFERENCES

1. Torresan F, Ioannou A, Azzaroli F, Bazzoli F. Treatment of achalasia in the era of high-resolution manometry. *Ann Gastroenterol* 2015;28:301-308.
2. Vaezi MF, Baker ME, Achkar E, et al. Timed barium oesophagram: better predictor of long-term success after pneumatic dilation in achalasia than symptom assessment. *Gut* 2002;50:765-770.
3. Yadlapati R, Kahrilas PJ, Fox MR, et al. Esophageal motility disorders on high-resolution manometry: Chicago classification version 4.0[®]. *Neurogastroenterol Motil* 2021;33:e14058. doi:10.1111/nmo.14058
4. Roman S, Kahrilas PJ, Boris L, Bidari K, Luger D, Pandolfino J. High-resolution manometry studies are frequently imperfect but usually still interpretable. *Clin Gastroenterol Hepatol* 2011;9:1050-1055. doi:10.1016/j.cgh.2011.08.007
5. Hwang JK, Hong SG, Joo MK, Park JJ, Kim JS, Bak YT. Butterfly in the esophagus: what is wrong? *J Neurogastroenterol Motil* 2010;16:94-95. doi:10.5056/jnm.2010.16.1.94