

## Case report

### Co-occurrence of the rare case of dysphagia lusoria with achalasia

#### **Abstract:**

Dysphagia is subjective feeling of difficulty of swallowing that has many causes. Of them, achalasia in which there is failure of relaxation of lower esophageal sphincter (LES) together with aperistalsis of esophageal body. Also, the rare case of dysphagia lusoria, caused by aberrant right subclavian artery originating from left aortic arch compressing the esophagus. We found both conditions in a case presented with dysphagia and weight loss.

**Aims:** it is important to emphasize the importance of appropriate use of diagnostic modalities and the possibility of co-occurrence of different etiologies for dysphagia.

**Keywords:** achalasia, dysphagia lusoria.

#### **Introduction:**

Compression of the esophagus by a vascular structure is an uncommon cause of dysphagia. Dysphagia lusoria is a rare vascular anomaly identified in a small number of patients being evaluated for dysphagia.

#### **Case presentation**

A 48-year-old Egyptian lady presented with intermittent dysphagia

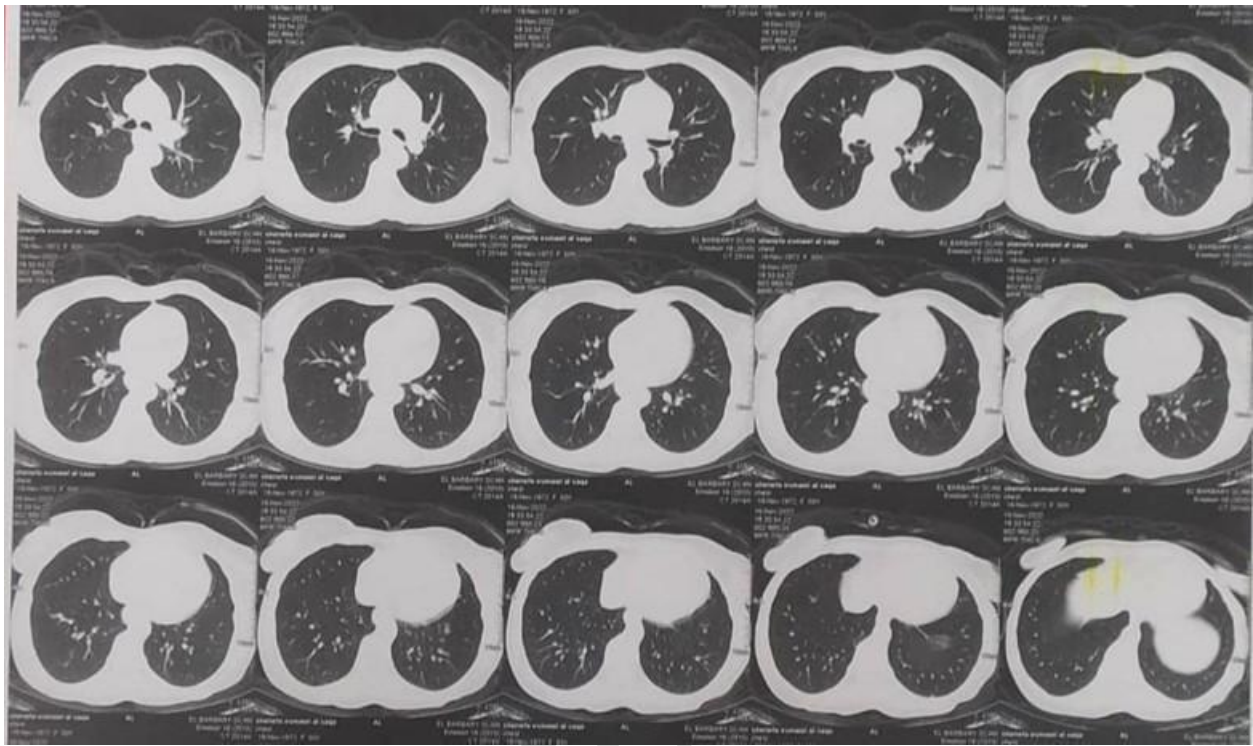
mainly to solids with occasional regurgitation for 10 years duration. Barium meal and EGD were performed at another hospital 5 years ago reporting no abnormal findings. She came to our endoscopy unit at the department of Tropical Medicine and Infectious Diseases at Tanta University Hospitals, Tanta, Egypt with marked weight loss of nearly 42 kgs in 7 years duration and dysphagia mainly to solids. Barium esophagogram revealed prominent aortic knuckle, diffusely dilated esophagus with stenosed lower end (**Figure 1**). CT chest showed aberrant right subclavian artery, prominent aortic knuckle and dilated lower esophagus (**Figure 2**). We performed EGD and found a passable upper esophageal stenosis and impassable pinpoint esophageal stenosis not passing the pediatric endoscope at the cardia (Olympus GIF-160) (**Figure 3**). Achalasia was diagnosed as the cause of significant dysphagia and weight loss, and pneumatic dilatation was done with Hercules balloon (Cook, USA) (**Figure 4,5**). The patient symptoms were improved after dietary modification and two sessions of pneumatic balloon dilatation.



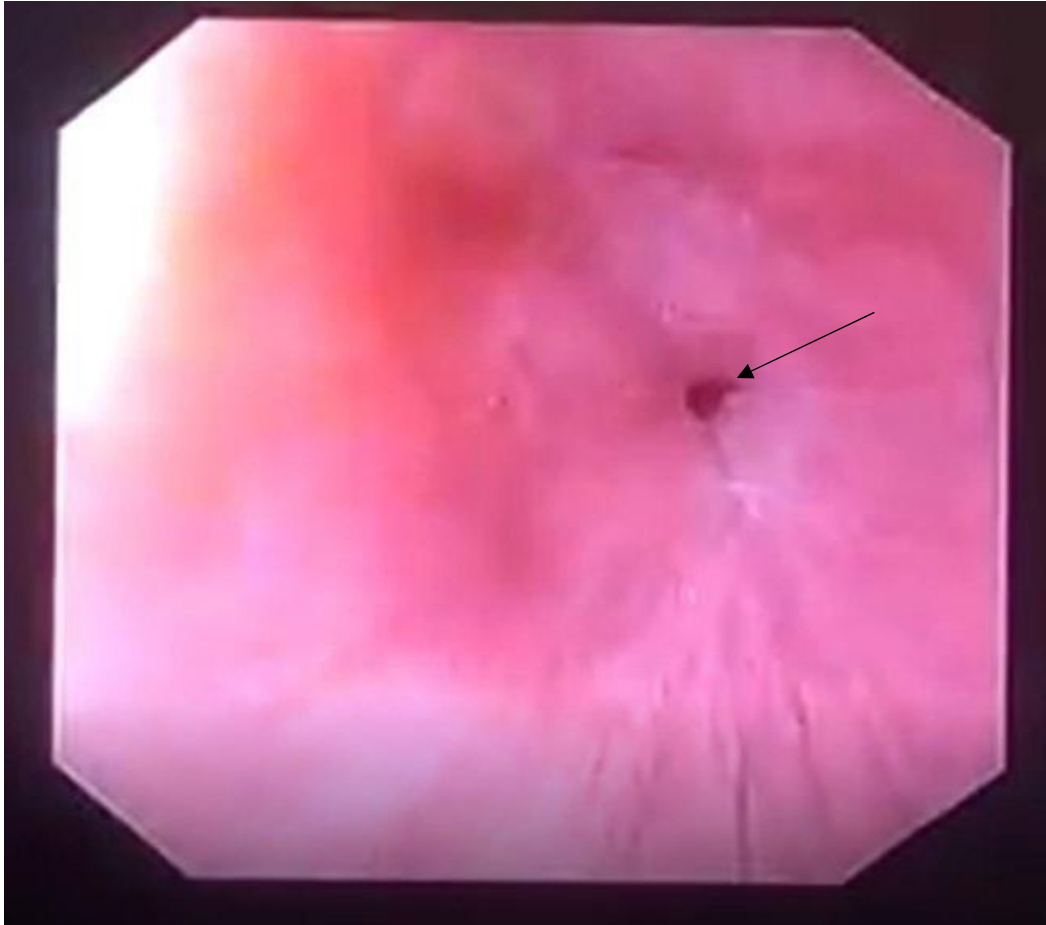
**Figure 1:** barium esophagogram showing indentation of esophagus and prominent aortic knuckle (white arrow) and fusiform dilation of

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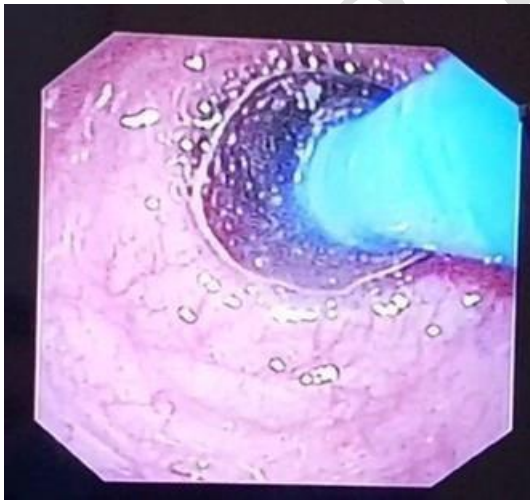
esophageal body with narrow tapering at lower esophagus (yellow arrow).



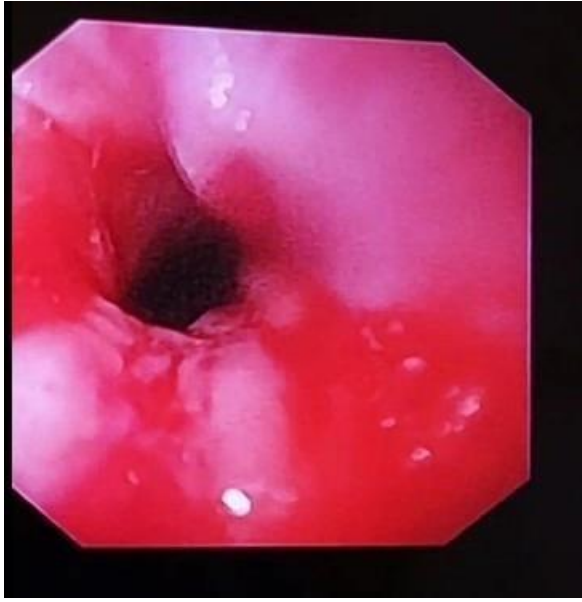
**Figure 2:** CT chest showing aberrant right subclavian artery



**Figure 3:** EGD showing pinpoint GEJ not passing the scope.



**Figure 4:** balloon dilatation of LES.



**Figure 5:** dilated LES after balloon dilatation.

### **Discussion:**

Achalasia is a primary esophageal motility disorder, characterized by progressive degeneration of ganglion cells in esophageal myenteric plexus. It results in impaired relaxation of lower esophageal sphincter (LES) on swallowing and aperistalsis in distal smooth muscle segment of the esophagus (1). Dysphagia lusoria is descriptive term to any vascular anomaly causing extrinsic compression of esophageal lumen, most common caused by aberrant right subclavian artery. 60 % of cases are asymptomatic. And most of symptomatic cases present after 45- years of age as non-progressive mechanical dysphagia (2,3). Diagnosis relies on barium esophagogram followed by CT angiogram (4). Management of this condition depends on severity: mild cases are best managed by patient reassurance and lifestyle and dietary modification while severe cases are best managed with surgery aimed at moving and fixing the aberrant vessel in its appropriate position (5). Our case responded to dietary modification and pneumatic dilatation without need for endovascular intervention.

## **Conclusion:**

high index of suspicion and wise choice of the appropriate diagnostic measures and putting in mind the co-occurrence of different etiologies are the key for sound management of dysphagia.

## **References:**

- 1) Reynolds JC, Parkman HP. Achalasia. *Gastroenterol Clin North Am.* 1989;**18(2)**:223-255.
- 2) Jan SL, Lin MC, Chan SC. Mid-term follow-up study of neonatal isolated aberrant right subclavian artery. *Cardiol Young.* 2018;**28(8)**:1024-1030.
- 3) Epperson MV, Howell R. Dysphagia lusoria: problem or incidentaloma? *Curr Opin Otolaryngol Head Neck Surg.* 2019;**27(6)**:448-452.
- 4) Janssen M, Baggen MG, Veen HF, et al. Dysphagia lusoria: clinical aspects, manometric findings, diagnosis, and therapy. *Am J Gastroenterol.* 2000;**95(6)**:1411-1416.
- 5) Levitt B, Richter JE. Dysphagia lusoria: a comprehensive review. *Dis Esophagus.* 2007;**20(6)**:455-460.