Dysphagia Lusoria Secondary to an Aberrant Left Subclavian Artery

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INTRODUCTION

- Dysphagia lusoria, also known as Bayford-Autenrieth dysphagia, is a rare condition with prevalence of approximately 0.5%.
- First reported by David Bayford in 1790, it is defined as dysphagia secondary to extrinsic compression of the esophagus as a result of congenital abnormality of the aortic arch and its branches.
- We report a case of Dysphagia lusoria in a patient with congenital heart syndrome.

CASE DESCRIPTION

- A 36-year-old woman with history of Dysphagia lusoria secondary to an aberrant left subclavian artery (SCA), congenital heart syndrome with known right sided thoracic aorta, tricuspid atresia and stenosis, hypoplastic right ventricle, and aberrant left SCA presented to the hospital with worsening dysphagia.
- She reported vomiting with any solid foods and only tolerating pureed foods or liquids.

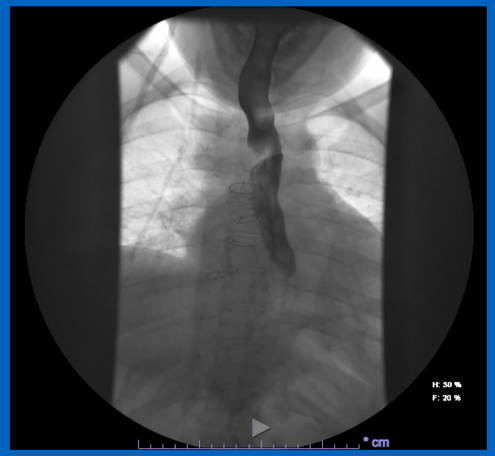

Figure 1: Barium esophagram showing persistent vascular impression along the right posterior lateral aspect of the proximal esophagus at roughly the level of the aortic arch consistent with known right-sided aortic an aberrant left subclavian.

Figure 2: 3D render of CTA imaging showing right-sided aortic arch with an aberrant left subclavian artery coursing posterior to the esophagus.

CASE DESCRIPTION

- She reported a history of progressive dysphagia since 2018, when she underwent esophagogastroduodenoscopy (EGD) that showed subtle pallor in the upper esophagus concerning for partial obstruction due to aberrant subclavian artery. She also underwent a manometry that was normal.
- On hospital admission, she underwent an x-ray upper gastrointestinal series that showed unchanged vascular impression of the upper esophagus with mild esophageal dysmotility, consistent with her diagnosis of Dysphagia lusoria. Cardiology and vascular surgery were consulted and deemed the patient a poor surgical candidate due to her prior operations for congenital disease and Fontan physiology.
- Management was deferred to gastroenterology, who recommended small meals and chewing well and proton pump inhibitor therapy for associated heart burn.
- The patient reported symptomatic improvement with dietary modification.

DISCUSSION

- The most common alteration in Dysphagia lusoria is an aberrant right subclavian artery.
- Most patients are asymptomatic; symptoms usually include dysphagia, regurgitation, chest discomfort, weight loss, and Horner syndrome.
- Diagnosis is best achieved by barium esophagram, which often shows extrinsic compression above the aortic arch.
- EGD can further show extrinsic compression of the posterior wall of the esophagus.
- Mildly symptomatic patients are recommended to chew thoroughly, sip liquids, and avoid exacerbating foods.
- Surgical intervention with the goal of removing the aberrant vessel and reconstructing a more functional vascular system is rarely performed but reserved for severe cases.
- The significant risk of morbidity and mortality with surgery needs to be weighed in these patients.