

Patient Presenting with Dysphagia

Radiology Elective Presentation

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Patient Presentation

- 86 y/o female with a past medical history of DM type II, diabetic neuropathy, and known paraesophageal hernia referred to GI radiology for esophagram in preparation for hernia repair
- The paraesophageal hernia has been associated with chest pain, dysphagia, hoarseness, regurgitation of undigested food and unexpected weight loss
- These symptoms have been present for years but have worsened recently and she has new dysphagia to liquids
- Modified esophagram performed in 2011 showed marked dysmotility throughout the esophagus with mild GERD, but no esophagitis

Upper GI study on 5/2/2018



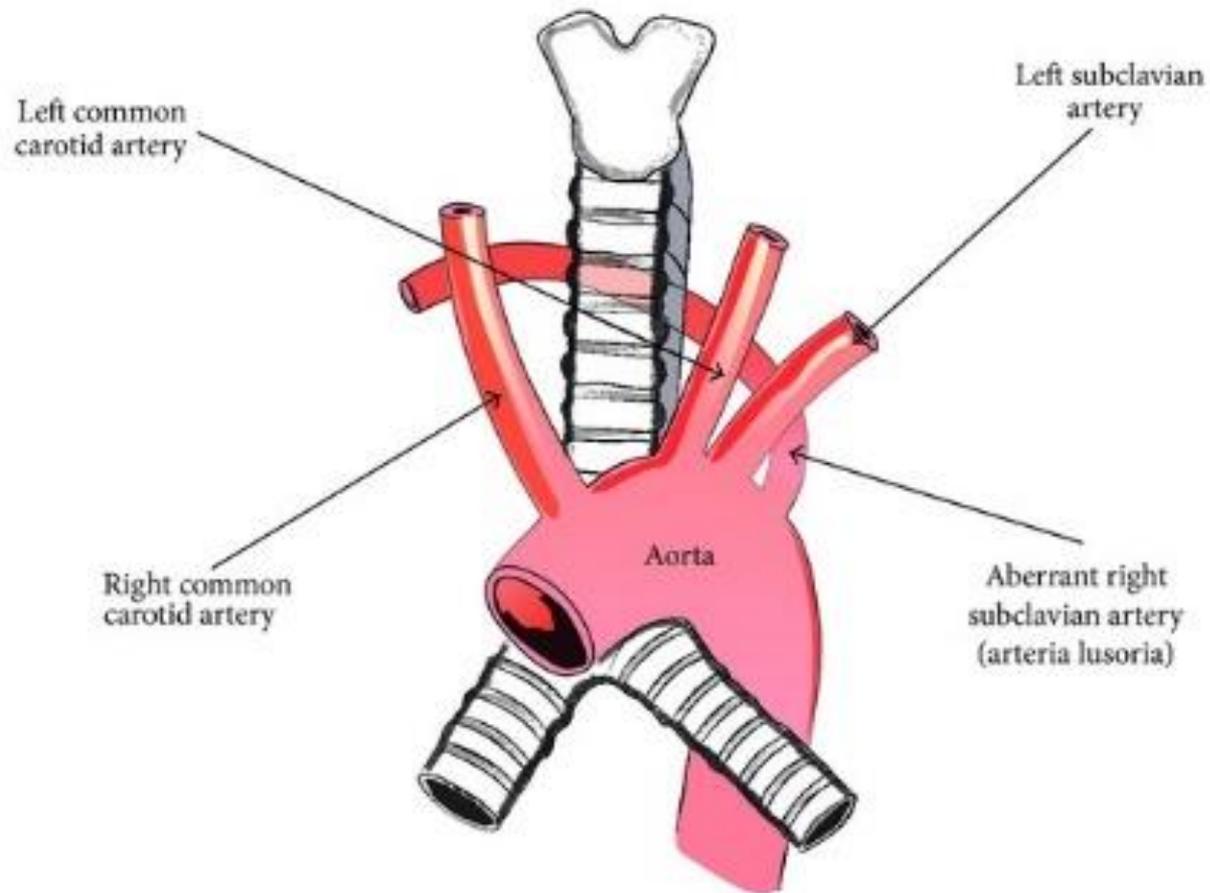
CT Chest performed on 5/30/2012



Dysphagia Lusoria

- First described in 1794. From the latin term *lusus naturae*, meaning “freak of nature”
- Caused by extrinsic compression of the esophagus by an aberrant right subclavian artery
- Aberrant right subclavian artery has an incidence of 0.4 to 2%, but is generally asymptomatic
- Symptomatic in less than 10% of patients, and can present with respiratory symptoms (childhood) or dysphagia (elderly, much more common)
- Reasons for presentation later in life include increased rigidity of trachea and atherosclerosis of aberrant subclavian artery

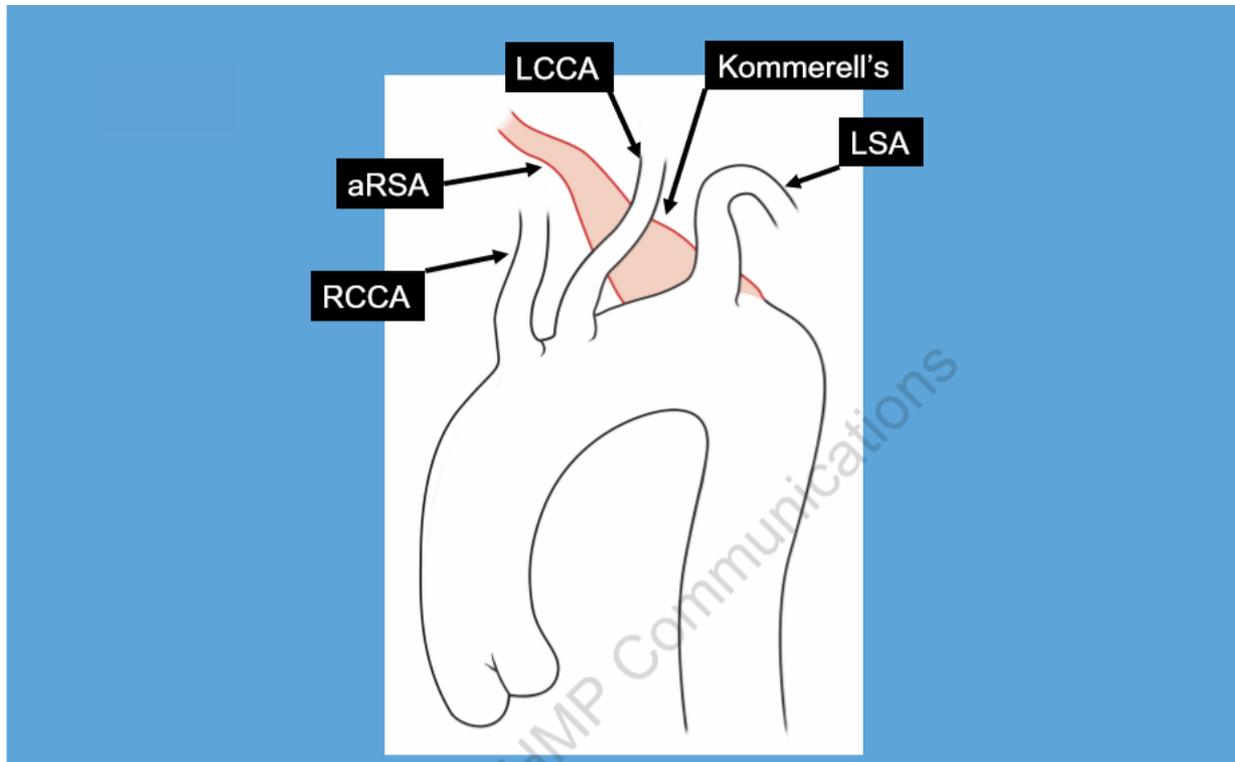
Aberrant Left Subclavian Artery Anatomy



Polguy M et al. (2014)

Kommerell's Diverticulum

- A broad base where the aberrant right subclavian artery inserts into the aortic arch can also cause compression itself



Criado F (2016)

Diagnosis

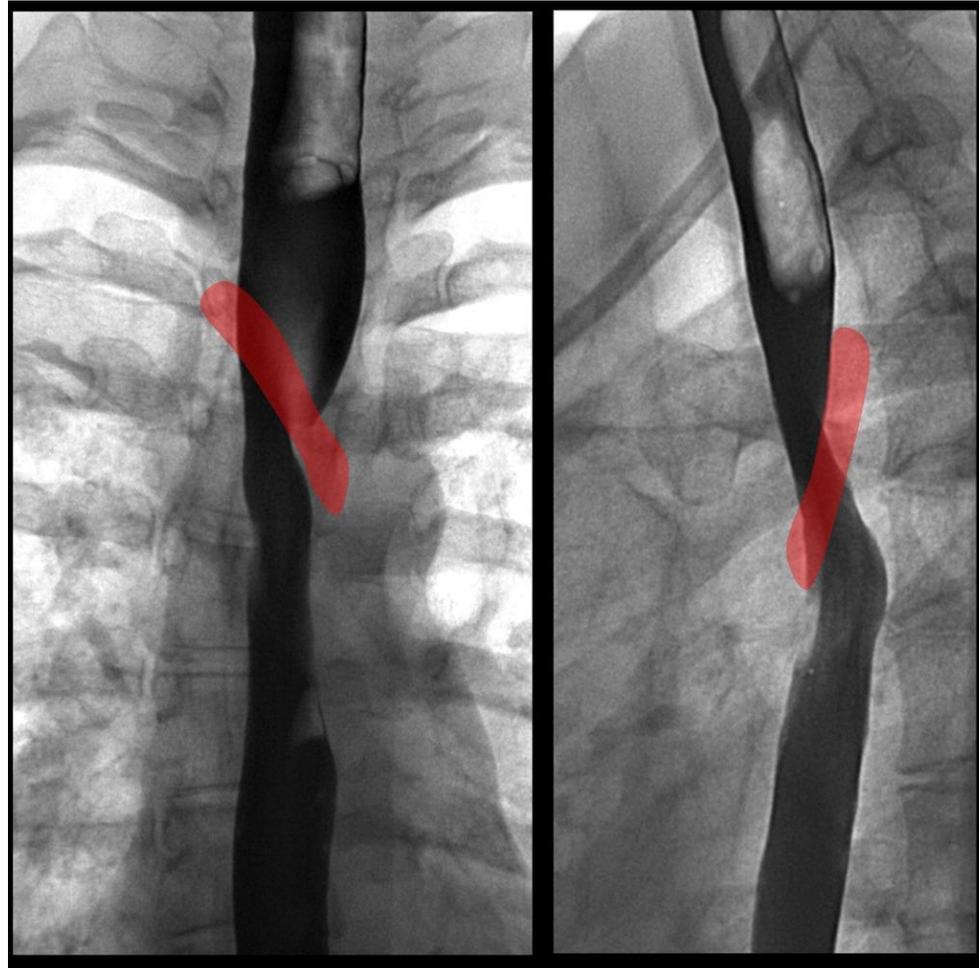
- Diagnostic endoscopy is negative in more than 50% of cases and manometry has no diagnostic role
- Chest radiograph can demonstrate enlargement of the superior mediastinum
- Barium studies of the esophagus may show indentation of the posterior esophageal wall by the artery

Barium study of the esophagus



<https://radiopaedia.org/cases/9689>

Barium study of the esophagus



<https://radiopaedia.org/cases/9689>

Management

- Mild to moderate symptoms: dietary modification with possible prokinetic agents.
- Severe symptoms: Surgical repair and reconstruction of the aberrant vessel

Case Continued

- Barium study read as
 - Holdup of contrast at the upper esophagus from a right aberrant subclavian artery as well as the aorta.
 - Esophageal hold up above the gastroesophageal junction which may be related to extrinsic pressure from the aorta (dysphagia aortica) or possibly the previously noted hiatal hernia
- As there is a possible component of achalasia as well, and EGD with endoflip evaluation will be performed. Referred to GI motility
- May get a gastrostomy tube for nutrition

References

1. Levitt B, Richter E. Dysphagia lusoria: a comprehensive review. *Diseases of the Esophagus*. 2007.
2. Polguy M, Chrzanowski Ł, Kasprzak JD, Stefańczyk L, Topol M, Majos A. The aberrant right subclavian artery (arteria lusoria): the morphological and clinical aspects of one of the most important variations--a systematic study of 141 reports. *ScientificWorldJournal*. 2014.
3. Criado F. Taking a new look at Kommerell: recent insights on aortic diverticula. *Vascular Disease Management*. 2016.
4. Di Serafino M, Severino R, Lisanti F, Rocca R, Scarano E. Dysphagia lusoria: an uncommon cause of dysphagia. *Journal of Hepatology and Gastrointestinal Disorders*. 2016.