Case 2722

Eurorad

Dysphagia Lusoria

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Patient: 21 years, male

Clinical History:

A patient presented with dysphagia to solids that had started to occur over the past few months.Investigations revealed extrinsic compression of the oesophagus by an aberrant artery.

Imaging Findings:

The patient was seen in the clinic with painless dysphagia to solids over the past few months. He complained of a sensation of `food sticking' high up in the chest. He had no dysphagia to liquids. The patient had undergone an open heart surgery at the age of 7 months for correction of truncus arteriosus 2 and again at the age of 12 for correction of the aortic homograft. No other vascular abnormalities were commented upon during the time of the open heart surgery. A barium test swallow performed revealed the appearance of a small filling defect at the posterior wall of the upper oesophagus at a level superior to the aortic arch.The appearance was that of an extrinsic compression of the oeophagus at this level (Fig. 1). A CT scan of the thorax revealed an aberrant right subclavian artery arising from the posterior aspect of the aortic arch, traversing behind the oesophagus and compressing it on its way out towards the right lung apex. No other abnormalities of the oesophagus were demonstrated on the CT scan or on performing the barium swallow test.The clinical picture at this stage was that of dysphagia lusoria. Since the patient had minimal symptoms, he was treated conservatively.

Discussion:

The earliest reports of this disorder date back to 1757, and it was fully described in 1823. Dysphagia lusoria literally means `dysphagia by freak of nature'. It encompases any aortic root vascular anamoly that causes oesophageal dysphagia .Less than 1% of the population have a right subclavian artery of anomalous origin. All patients with dysphagia lusoria have an aberrant subclavian artery in the transposed position that courses posterior to the oesophagus. Various anomolies at the aortic root can cause this disorder—the right subclavian artery can arise from the aorta distal to the left subclavian artery crossing behind the oesophagus; right sided aortic arch with an aberrant left subclavian artery and left ligamentum arteriosum compressing the oesophagus; aneurysms of the aberrant artery or a kommerell's diverticulum at its aortic origin can all cause dysphagia lusoria. Various modalities can be used to diagnose dysphagia lusoria. A gastroscopy may show a pulsating oesophagus, but the diagnosis can easily be missed. A barium contrast test of the oesophagus shows a characteristic diagonal impression at the level of the fourth thoracic vertebra. A CT scan of the thorax will invariably show the aberrant artery. A three dimensional MRA is a suitable non-invasive alternative to conventional angiography. Both conservative and surgical interventions have been described. An extrathoracic approach is documented as being superior to a repair involving thoracotomy because there is a decreased rate of complications that may be associated with a thoracotomy and a greater visibility of the subclavian and carotid artery. The aberrant vessel is dissected, divided close to its origin and implanted into the ipsilateral common carotid artery or it can be translocated to the ascending aorta. Simple severing of the artery without reconstruction can also be performed. Surgery is not without its complications. One report in the annuals of vascular surgery in 1995 describes a case of subclavian steel syndrome developing 4 decades after

surgery for dysphagia lusoria. A case report in the American journal of gastroenterology describes the management of 6 patients with dysphagia lusoria. Three patients received symptomatic treatment only, three patients were operated upon and a of these patients still had intermittent dysphagia on follow-up 1 year later. Surgical correction is suggested if symptoms are intractable and even if a co-existing oesophageal abnormality is present.
Differential Diagnosis List: Dysphagia Lusoria.

Final Diagnosis: Dysphagia Lusoria.

References:

Whitley A
Dysphagia lusoria:a case study
J Vasc Nurs Mar 2001;19(1);14-7;quiz 18-9. (PMID: 11251935)
Janssen M,Baggen MG,Veen HF,Smout AJ,Bekkers JA,
Dysphagia lusoria:clinical aspects,manometric finding,diagnosis,and therapy
Am J Gastroenterol Jun 2000;95(6);1411-6. (PMID: 10894572)