CLINICAL IMAGES

Dysphagia lusoria — a tale to tell and what to do

A 42-year-old woman was followed up in the surgical clinic for a small multi-nodular goitre. She complained of dysphagia and was sent by the surgical registrar for a barium swallow. The abnormality was confidently diagnosed as dysphagia lusoria with the characteristic oblique impression at T4 upward and to the right (Fig. 1). Aortic arch angiogram confirmed the abnormality (Figs 2a and b) shown schematically in Fig. 3. Though rare (0.4% of the general population), this vascular abnormality is the commonest developmental anomaly of the aortic arch. It was first described by Hunauld[1] in 1735. Almost 60 years later Bayford[2] noted its association with dysphagia and first coined the term dysphagia lusoria after *lusus naturae* (jest of nature). It arises from the aortic arch distal to the left subclavian artery, crossing the midline behind the oesophagus. It is caused by abnormal involution or absence of the fourth right aortic arch in the embryonal stage, which normally forms the proximal part of the artery. As a result the proximal part of the arteria lusoria is then formed by the dorsal aortic root which has its origin distal to the left subclavian artery. The base of this arterial vessel may be dilated and is then called Kommerell's diverticulum.[3]

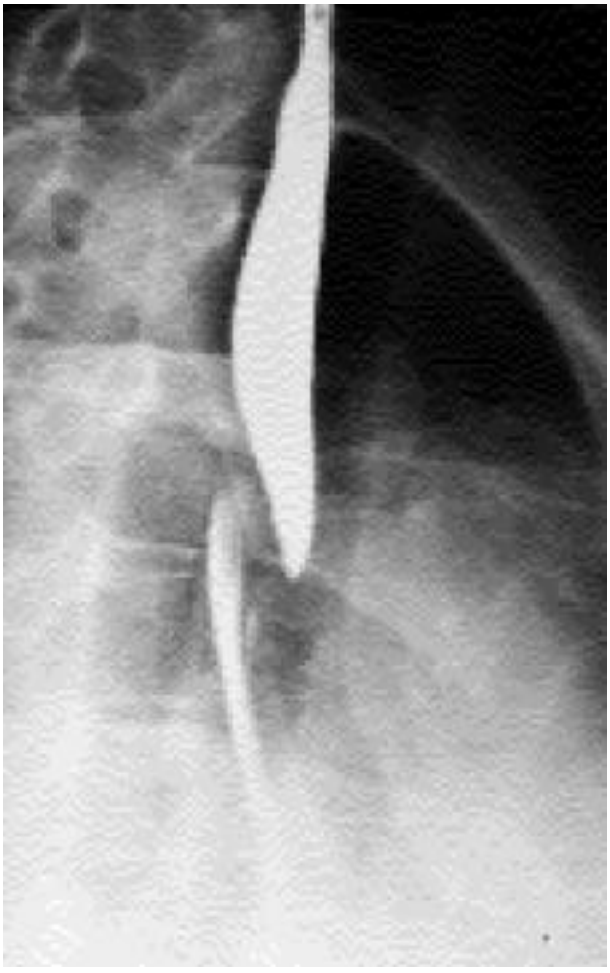
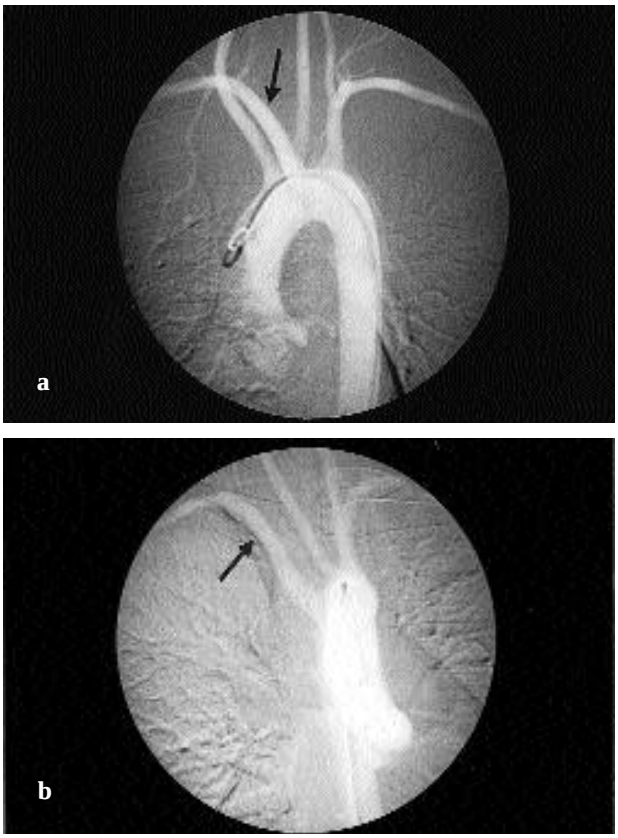


Fig. 1. Barium swallow showing the typical oblique impression at the T4 level characteristic of the abnormality.



Figs 2a and b. Arch angiogram showing the aberrant arteria lusoria arrowed in the anteroposterior and oblique projections.

Most patients (60 - 70%) with the anomaly are asymptomatic. Dysphagia, which is the most troublesome symptom, occurs with ageing, and may be periodic. Other symptoms include retrosternal pain, coughing and in children, repeated chest infections. The arteria lusoria is often associated with abnormal oesophageal motility and endoscopy often reveals associated hiatus hernia and

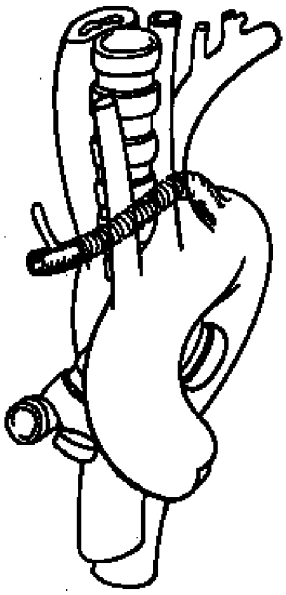


Fig. 3. Line diagram illustrating the arteria lusoria and how it impinges on the oesophagus.

oesophagitis. At present it is unclear whether dysphagia and other symptoms are caused by these associated changes or as a result of mechanical obstruction by the arteria lusoria. Surgical correction was first described by Gross[4] and a variety of surgical options can be applied.[5]

All of this begs the question:how should we manage this otherwise healthy, now anxious patient presenting with intermittent mild dysphagia associated with arteria lusoria?

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