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Dysphagia lusoria

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CASE REPORT

A 43-year-old lady with no past medical history was referred with five weeks of dysphagia and weight loss. She experienced food sticking retrosternally with associated pain radiating to her back. She was only able to tolerate a liquid diet and had subsequently lost nine kilograms of weight in five weeks.

Physical examination was unremarkable. Her screening blood tests and abdominal ultrasound were normal. An oesophago-gastro-duodenoscopy (OGD) was performed which showed an entirely normal upper gastrointestinal tract.

She subsequently underwent a computed tomography (CT) scan of her thorax, abdomen and pelvis and barium swallow. The CT demonstrated the aberrant right subclavian artery causing compression of the proximal oesophagus (Figure 1). This aberrant vessel was subsequently demonstrated causing a vascular impression of the mid oesophagus on barium swallow (Figure 2A and B).

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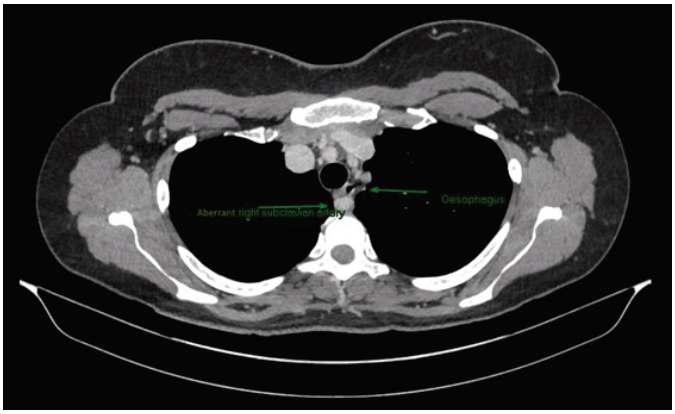

Figure 1: An axial non-contrast computed tomography scan of the patient's thorax. The compressed oesophagus and aberrant right subclavian artery are highlighted with green arrows.

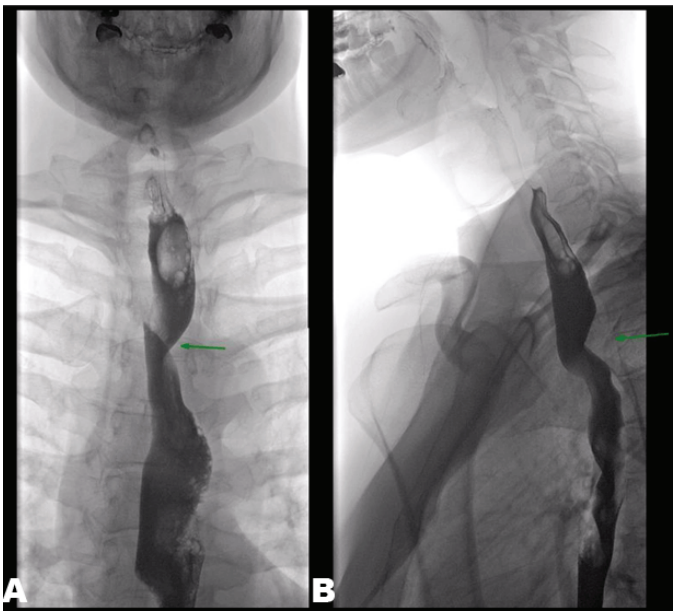

Figure 2(A and B): Anterior and lateral views of a barium swallow examination displayed on radiographs. Barium causes substantial attenuation of X-rays and so allows the visualisation of the oesophagus after it has been swallowed. The image on the left is an anterior view of the barium swallow examination with a green arrow marking the indentation on the oesophagus by the right subclavian artery. The image on the right is a lateral view of the barium swallow examination with a green arrow marking the indentation on the oesophagus by the right subclavian artery.

She has been managed conservatively, as definitive treatment would involve major vascular reconstructive surgery.

DISCUSSION

Dysphagia lusoria is a rare cause of dysphagia. It is caused by an aberrant course of the right subclavian artery [1]. It is thought to occur due to abnormal involution or absence of the 4th right arch of the aorta during early embryological development. This anomaly causes the right subclavian artery to branch from the abdominal aorta distal to the left subclavian and therefore cross the midline, predominately adjacent to the oesophagus [2, 3]. The incidence of this aberrant right subclavian artery is reported as between 0.3 to 1.8% [4, 5]. Usually this anomaly does not cause symptoms. However, 20–40% of aberrant arteries are reported to cause trachea-oesophageal symptoms; the mean age of presentation is between 40–48 years old [1]. Manometric abnormalities may contribute to dysphagia in older patients [5]. Barium swallow classically shows a posterior, oblique indentation of the oesophagus. Contrast-enhanced computed tomography typically confirms the diagnosis. Symptomatic dysphagia lusoria can be treated with proton-pump inhibitors and dietary modification, or surgically with ligation and transposition to the right carotid artery [6].

CONCLUSIONS

Dysphagia lusoria is a rare cause of dysphagia. It is caused by an aberrant course of the right subclavian artery, which compresses the oesophagus and causes dysphagia.

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Author Contributions

Simon Phillpotts – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published
Alexander Azizi – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published
Matthew Train – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published
Steven Mann – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Guarantor of Submission

The corresponding author is the guarantor of submission.

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None

Consent Statement

Written informed consent was obtained from the patient for publication of this clinical image.

Conflict of Interest

Authors declare no conflict of interest.