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Case Report

Dysphagia of Vascular Origin: A Case Report

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Abstract

Dysphagia lusoria is an uncommon cause of dysphagia secondary to extrinsic compression by a right subclavian artery with an aberrant retroesophageal course compressing its posterior wall, leading to dysphagia. Dysphagia is found in 90% of symptomatic cases. Diagnosis can be suspected through endoscopy and barium swallow study, and confirmed by CT angiography or MR angiography. Treatment can be medical or surgical depending on the severity of symptoms.

Keywords: *Dysphagia Lusoria; Aberrant Right Subclavian Artery; Extrinsic Compression; Angiography*

Introduction

Dysphagia lusoria is secondary to extrinsic vascular compression of the esophagus by an aberrant right subclavian artery, also known as arteria lusoria. Treatment can be medical for mild cases or surgical for severe or complicated cases. We report the case of a 63-year-old man presenting with lusorian dysphagia".

Case Report

A 63-year-old man, without any significant medical history, reports a gradual onset of intermittent dysphagia to solids over the past 2 years, which has worsened in the last few days, evolving in the context of preserved general condition. Clinical examination revealed no abnormalities. Blood tests showed a moderate normochromic normocytic anemia (Hb = 11 g/dl). An esophagogastro-duodenoscopy was performed, revealing extrinsic compression of the cervical esophagus. A cervical-thoracic CT angiography was carried out (Figures 1a, 1b, 2a, and 2b), showing a lusorian artery: an aberrant right subclavian artery originating from the distal aortic arch, passing through the mediastinum behind the esophagus with dilation of its origin, thereby compressing the posterior wall of the esophagus, confirming the diagnosis of lusorian dysphagia. The patient underwent surgical repair via left posterolateral thoracotomy with uncomplicated postoperative course.

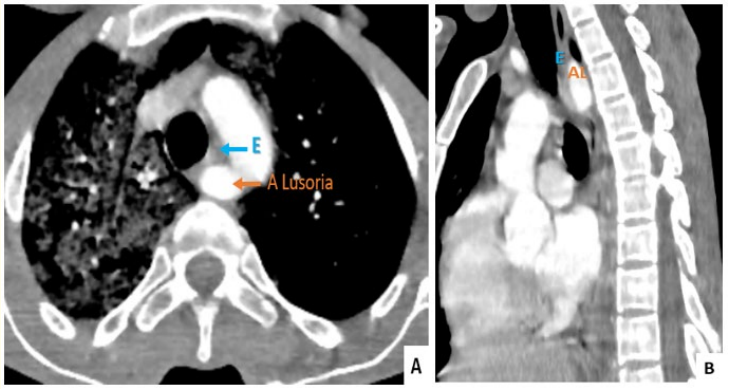

Figure 1: *Angiographic images of axial (Figure A) and sagittal (Figure B) sections in the mediastinal window after contrast injection showing a dilated arteria lusoria (AL) originating from the distal aortic arch and passing behind the esophagus (E), thereby compressing its posterior wall.*

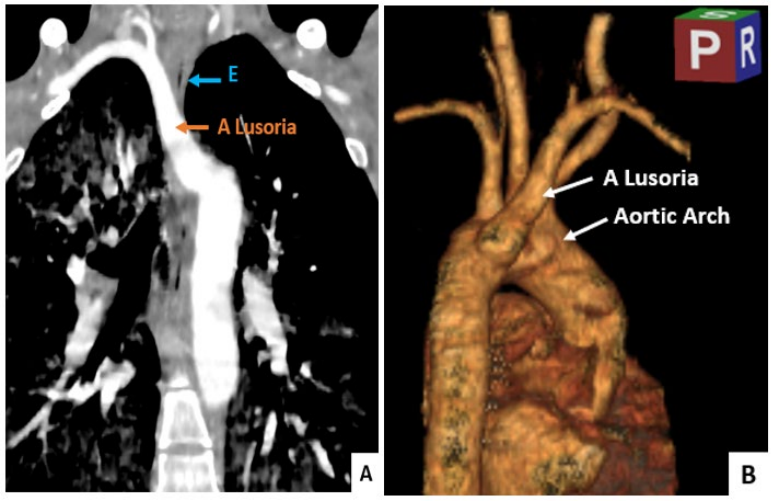

Figure 2: *Coronal reconstruction (Figure A) in the mediastinal window after contrast injection and volume rendering technique (VRT) (Figure B) in posterior oblique view showing a direct origin of the right subclavian artery from the distal aortic arch and its posterior course.*

Discussion

Dysphagia lusoria is the term used to describe dysphagia secondary to extrinsic compression of the esophagus by an aberrant right subclavian artery, also known as arteria lusoria. The aberrant right subclavian artery is the most common congenital anomaly of the aortic arch, originating from the distal aortic arch instead of the left subclavian artery, occurring in 0.5 to 1.7% of cases [1]. It results from regression of the fourth vascular arch and the right dorsal aorta, leaving the seventh intersegmental artery attached to the descending aorta, which evolves to become the right subclavian artery [2]. In approximately 80% of cases, the right subclavian artery crosses the

midline behind the esophagus, causing linear extrinsic compression on its posterior wall. In 15% of the population, it may pass between the esophagus and the trachea, and in about 5%, it courses anteriorly to both [3].

Lusorian artery is often asymptomatic, but when symptomatic, it can cause dysphagia, chest pain, intermittent dyspnea, chronic cough, aortitis, and rupture of an associated aneurysm. Dysphagia is found in 90% of symptomatic cases resulting from compression of the esophagus caused by an aberrant right subclavian artery, especially in elderly subjects. It is favored by increased rigidity of the esophageal wall, elongation of the aorta, and arterial atherosclerosis [4]. Diagnosing lusorian dysphagia is challenging because clinical presentations are often atypical, and endoscopic examinations may be negative in over 50% of patients [4].

In the presence of dysphagia, the diagnosis of lusorian dysphagia may be suspected based on radiological signs seen on a barium swallow study performed in infants, and less commonly in adults, which reveals a posterior oblique impression on the esophageal wall and will be confirmed by CT angiography or MR angiography. Computed tomography or magnetic resonance imaging are the preferred diagnostic modalities for evaluating the mediastinum to identify solid tumors or vascular anomalies that may be causing extrinsic compression of the esophagus, but angiography may be necessary to confirm the retro-esophageal aberrant course of the right subclavian artery (lusorian artery) and in preoperative evaluation.

No treatment is indicated for asymptomatic lusorian artery. Treatment is only justified if it causes troublesome dysphagia or in case of complications such as aneurysms, whether symptomatic or not. The therapeutic management of lusorian dysphagia depends on the severity of symptoms and ranges from implementing hygienic-dietary measures in mild cases [4,5] to the need for surgical or interventional radiological treatment to obliterate or redirect the aberrant vessel in severe symptomatic cases.

Conclusion

The “lusoria artery” is a rare vascular malformation, often asymptomatic. “Dysphagia lusoria” represents the most common clinical manifestation of its symptomatic form, yet it remains underdiagnosed. Angiography is the key examination for a positive diagnosis. Therapeutic approach depends on the severity of symptoms.

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