

# Dysphagia aortica — dual aortic impressions on barium swallow

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## Abstract

Transient intermittent oesophageal obstruction in an elderly patient is described. Barium swallow showed an extrinsic impression of the oesophagus by an aneurysmal aortic arch as well as the descending aorta. The aetiology and likely differential considerations are discussed.

## Introduction

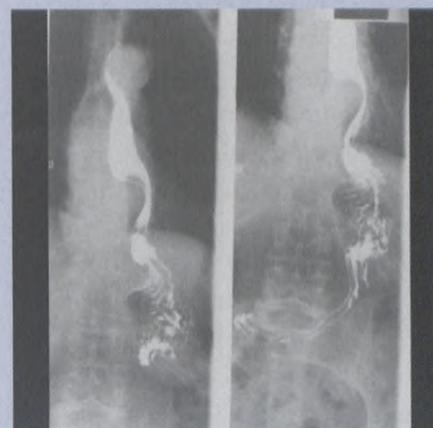
Aneurysms of the aortic arch and descending aorta can cause considerable localised displacement of the oesophagus. Dysphagia due to all types of thoracic aortic aneurysm is uncommon but well documented. The incidence has been reported to approximate 5%.<sup>1</sup> We present a patient with two separate impressions on either side of the oesophagus due to a thoracic aortic dilatation.

## Case report

An 84-year-old woman on treatment for hypertension, ischaemic heart disease and osteoporosis, presented with a 6-month history of dysphagia and weight loss. On examination the patient had kyphosis and a pulsatile epigastric mass. A barium swallow clearly demonstrated a left-sided extrinsic impression, which was due to aneurysmal dilatation of the aortic arch. A second right-sided extrinsic impression of the lower oesophagus was also demonstrated (Figs 1a and 1b). The impression was pulsatile and was caused by the descending aorta.

## Discussion

The aorta is attached to the oesophagus by fibrous tissue. Elongation and unfolding of the ageing-descending aorta is accompanied by displacement of the oesophagus from its usual course. Dysphagia aortica can be caused by compression of either the upper oesophagus by a thoracic aneurysm or the lower oesophagus by an aneurysmal or atherosclerotic aorta. In our patient both these impressions could be demonstrated. Dysphagia aortica is associated with hypertension, old age, and kyphoscoliosis.<sup>2</sup> Only 10 cases of dysphagia aortica were identified from a Medline search of the last 10 years and a litera-



Figs 1a and 1b. AP view barium swallow demonstrates dual aortic impressions.

ture review compared with 40 cases of compression by an aberrant subclavian artery.<sup>3</sup> Fluoroscopy of the barium-filled oesophagus shows transmitted pulsations. The distal oesophagus is narrowed in one plane by this extrinsic compression, and obstruction in the erect and supine positions may be relieved by turning the patient prone. Complete occlusion of the distal oesophagus is a rare manifestation of a saccular thoracic aortic aneurysm.<sup>4</sup>

The barium swallow will show a classic feature of achalasia, that is a dilated atonic oesophagus with a narrow tapered point at the cardia. Manometry, which differentiates dysphagia aortica from achalasia, shows low amplitude propagated peristaltic waves in the proximal part of the oesophagus and a high-pressure band at the site of the vascular compression. This contrasts with true achalasia in which there are no propagated contractions and no superimposed pulsations.

It is important to remember that diffuse infiltrating adenocarcinomas of the gastro-oesophageal junction can mimic the radiological and manometric features of true achalasia

by mechanical obstruction of the distal oesophagus, as well as infiltration and destruction of the myenteric plexus by the tumour.<sup>5</sup> This condition, termed pseudoachalasia, must be excluded before making a diagnosis of either classic achalasia or dysphagia aortica. There is no single test for pseudoachalasia, but high resolution CT, MRI, endoscopic ultrasound and careful endoscopic biopsy specimens from the area can be used to make the diagnosis.

Dysphagia aortica should be considered in any elderly patient with dysphagia who also has an aortic aneurysm. The radiographic appearance, however, needs to be distinguished from achalasia or an obstructing distal oesophageal neoplasm.

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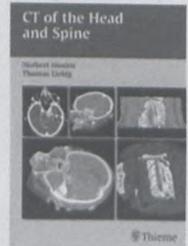
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