A 77-year-old Caucasian woman presented to our hospital with difficulty swallowing solid food and weight loss during the past 2 years. She did not drink alcohol or smoke. Her physical examination and her past medical history were unremarkable. Radiograph of the chest showed a right-sided aortic arch (Figure 1).

A barium esophagogram was performed. A double indentation at the level of the aortic arch and the supra-diaphragmatic region of the esophagus was observed, being suggestive of extrinsic compression (Figure 2). A magnetic resonance imaging (MRI) angiography revealed an abnormal anatomy of the aortic arch and supra-aortic vessels with an aberrant left subclavian artery. This artery was originated from an aneurismal dilatation (Kommerell's diverticulum) compressing the esophagus (Figure 3). The patient refused surgery, and a follow-up three-dimensional volume-rendered computed tomography angiography showed no vascular changes (Figure 4).

Esophageal dysphagia is rarely caused by abnormal vessels or aneurism dilatation (dysphagia lusoria), and it was first described by David Bayford in 1789. Three types of vascular abnormalities of the aortic arch causing dysphagia lusoria have been described, being the combination of right aortic arch, aberrant retroesophageal left subclavian artery originating from a Kommerell's diverticulum the less common. Most patients are asymptomatic, but in some cases it can compress the surrounding structures causing dysphagia, dyspnea, recurrent pneumonia, obstructive emphysema or even death by dissection of the aneurismal dilatation.

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Figure 1. Radiograph of the chest showing a right aortic arch (arrow).

Figure 2. Barium esophagogram showing a double indentation at the proximal and supra-diaphragmatic part of the esophagus (arrows).
References


Figure 3. MRI angiography. AO, right-sided aortic arch; RCA, right carotid artery; LCA, left carotid artery; RSCA, right subclavian artery; LSCA, left subclavian artery; KD, Kommerell’s diverticulum (arrow) at the origin of the LSCA, which compress the proximal esophagus causing dysphagia lusoria.

Figure 4. Three-dimensional volume-rendered CT angiography showing the malformation of the aortic arch.