

IMAGES IN EMERGENCY MEDICINE

Imaging

Elderly woman with rapid progression of swallowing difficulty**Ryo Tanabe MD^{1,2}  | Tsuyoshi Nojima MD¹ | Tetsuya Yumoto MD, PhD¹ | Atsunori Nakao MD, PhD¹**¹Department of Emergency, Critical Care and Disaster Medicine, Okayama University Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama, Japan²Department of Emergency Medicine, Kasaoka Daiichi Hospital, Kasaoka, Okayama, Japan**Correspondence**

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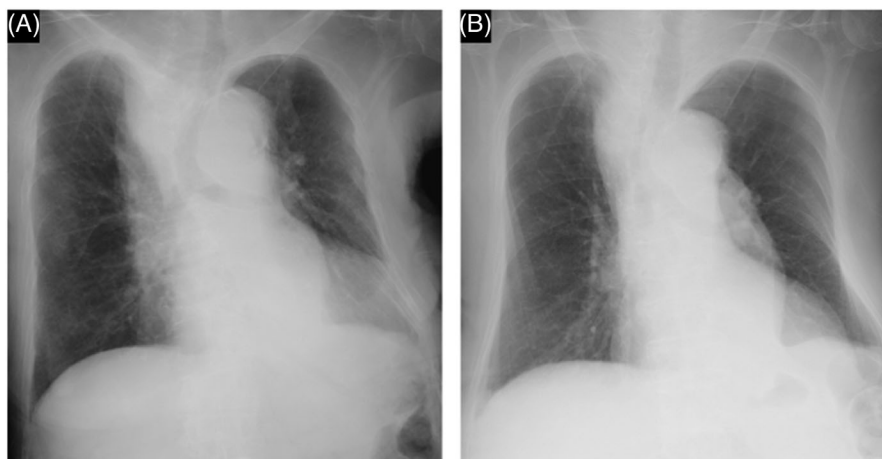
Email: rtanabe.ge@gmail.com**1 | CASE REPORT**

An 86-year-old woman with hypertension and dementia presented to our hospital, reporting a few days of progressive dysphagia to both solids and liquids. Her vital signs were stable. On physical examination, short stature and thoracic kyphosis were apparent. Laboratory data were as follows: white blood cell count of 11,000/ μ L with 85.7% neutrophils and C-reactive protein, 6.74 mg/dL. A chest radiograph revealed superior mediastinal widening (Figure 1A) compared with previous images (Figure 1B). Contrast-enhanced computed tomography (CT) showed compression of the upper thoracic esophagus by a saccular aneurysm of the aortic arch surrounded by a multilobulated fluid collection, suggesting active infection (Figures 2A–D). A barium swallow study demonstrated significant dilation of the proximal

esophagus and complete obstruction at the level of the aortic arch (Figure 3).

2 | DIAGNOSIS**2.1 | Dysphagia aortica caused by infected aortic arch aneurysm**

Antibiotic therapy and supportive care were provided because she and her family refused any further interventions given her frailty. Four weeks after admission, she had sudden massive hematemesis, implicating that an aorto-esophageal fistula (AEF) had occurred. Ultimately, she died several hours later.

**FIGURE 1** Chest x-ray showing mediastinal enlargement (A) compared with an x-ray obtained a year earlier (B).

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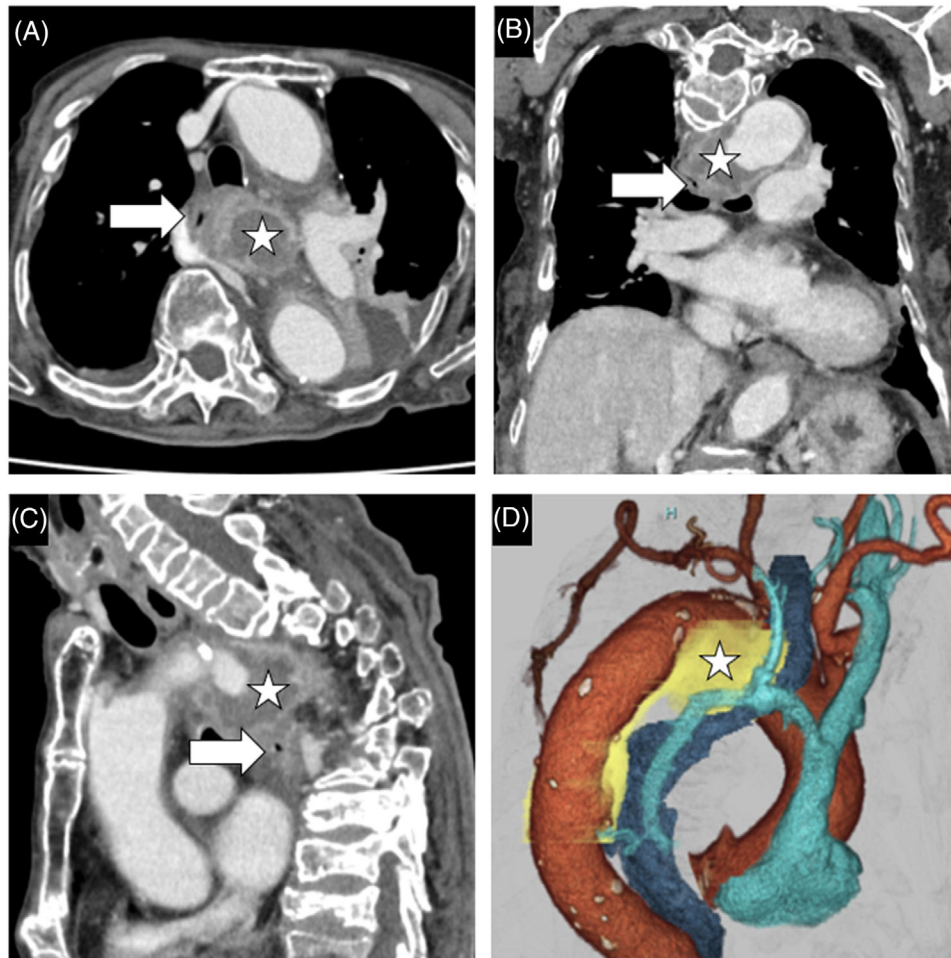


FIGURE 2 Axial (A), coronal (B), sagittal (C), and three-dimensional (D) computed tomography (CT) reconstruction images demonstrating extrinsic esophageal compression (arrow) by a sacular-shaped thoracic aortic aneurysm with periaortic soft tissue density (asterisk) at the arch of the aorta. Red area: aorta. Yellow area: aneurysm and abscess. Dark blue area: esophagus. Light blue area: vena cava.



FIGURE 3 Barium swallow test depicting pooling of barium in the upper thoracic esophagus.

Dysphagia aortica is a relatively rare cause of mechanical swallowing difficulty. Typically, it manifests slowly from extrinsic compression of the esophagus by an aneurysmal, dilated, or tortuous aorta.¹ In the present case, acute dysphagia occurred due to an infected aortic aneurysm, which is characterized by a rapid enlargement, leading to potential aneurysmal rupture or AEF.² Although our patient was managed supportively, immediate surgical intervention is required to avoid fatal consequences.

CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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