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IMAGING VIGNETTE

INTERMEDIATE

CLINICAL VIGNETTE

The Mediastine's Cane

A Simple Radiograph Case

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ABSTRACT

Congenital anomalies of the aorta are rare disorders that result from an abnormal development of the embryonic pharyngeal arch system. Aortic arch abnormalities occur in 1% to 2% of the population, and their clinical representation, usually in the first years of life, depend on esophageal or tracheobronchial compression or abnormal blood patterns. Such abnormalities are seldom seen in adults. (**Level of Difficulty: Intermediate.**) (J Am Coll Cardiol Case Rep 2020;2:493–4)

A 51-year-old white woman was admitted to the emergency department with cough, myalgia, and exertion dyspnea 3 days after taking the vaccine against the influenza virus. The patient also referred mild solid dysphagia since childhood. Physical examination findings and blood test results were unremarkable.

A radiograph showed a mediastinal cane-like deformity of the aortic arch (**Figure 1A**) and a sinusoid silhouette of the descending thoracic aorta (**Figure 1B**). Thoracic computed tomography scan exhibited an anomalous route of the thoracic aorta, with a severe tortuosity of the aortic arch and distal segment of the descending aorta (**Figures 1C and 1D**). All aortic segments had normal dimensions. The patient's other examination results, including elective coronary angiography, echocardiogram, and electrocardiography, were all normal. Congenital connective tissue disorders were also excluded.

This clinical case serves to illustrate an anomaly of the aortic route in an otherwise healthy middle-aged woman. To our knowledge, this aortic deformity does not fit any of the classic classifications for congenital deformity of the aorta or aortic arch (1,2) and represents a unique entity. Other than mild solid dysphagia, the patient did not exhibit any symptoms that could be related to this deformity. She stayed under yearly clinical surveillance, and no specific treatment was started (3).

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The authors attest they are in compliance with human studies committees and animal welfare regulations of the authors' institutions and Food and Drug Administration guidelines, or patient consent where appropriate. For more information, visit the *JACC: Case Reports* author instructions page.

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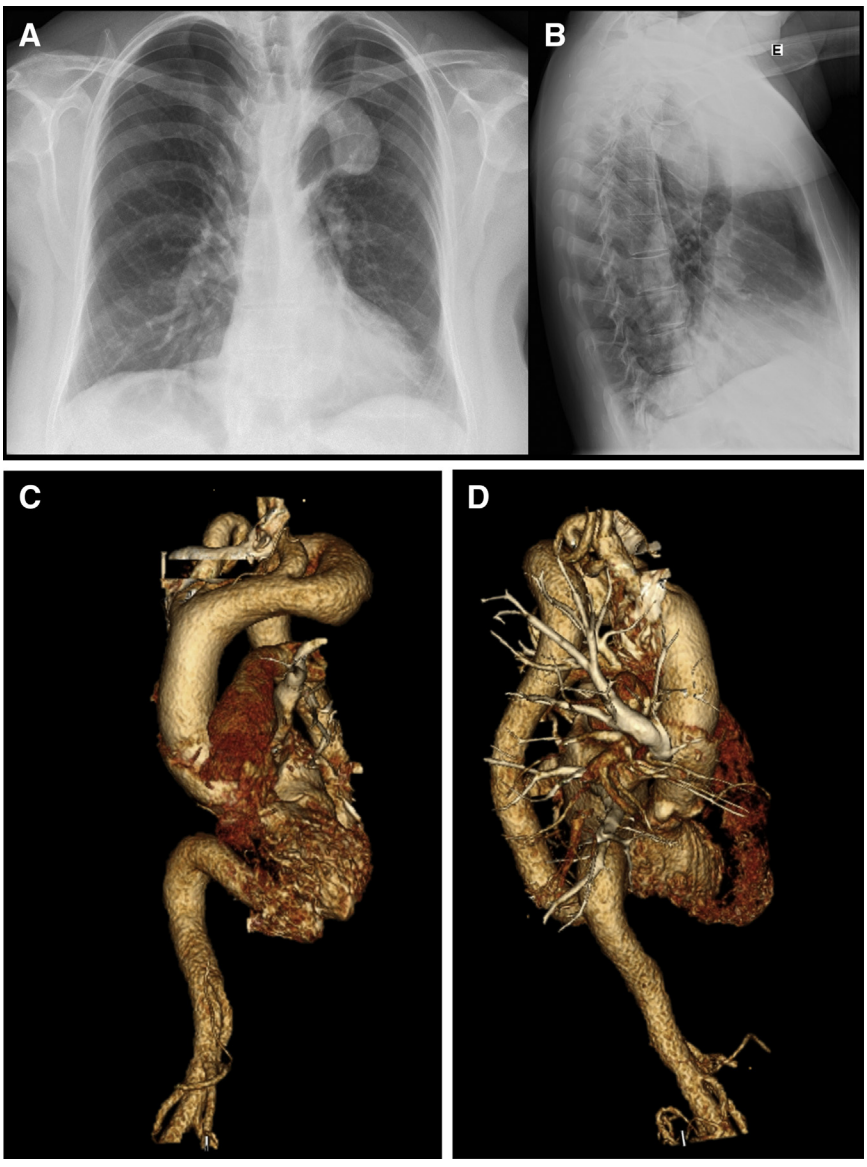
FIGURE 1 **The Mediastine's Cane**



Posterior-anterior and lateral thorax radiographs displaying a cane-like deformity of **(A)** the aortic arch and **(B)** a coiling deformity of the descending thoracic aorta. Thoracic computed tomography scan exhibited a sinusoidal path of the thoracic aorta. **(C)** Anterior view. **(D)** Right lateral view. At the arch, the aorta heads deeply into the apicoposterior segment of the upper left pulmonary lobe. The descending aorta descends posteriorly in the left lateral side of the vertebral column and performs an anterior sinusoid pathway before traversing into the right side of the vertebral column just above the diaphragm. See Supplemental Figures 1 to 4 and Videos 1 and 2.

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KEY WORDS aorta, congenital disease, radiograph

APPENDIX For supplemental figures and videos, please see the online version of this paper.