

A 39-Year-Old Woman with Chest Pain: The Importance of Incidental Imaging Findings

A 39-year-old woman presented to our outpatient clinic with chest and back pain at rest. Cardiac examination and electrocardiogram were normal. Echocardiographic examination revealed minimal tricuspid regurgitation, and systolic pulmonary artery pressure was measured as 25 mm Hg. A cardiac computerized tomographic angiography (CTA) revealed no coronary artery disease, but there was a focal outpouching in the inferior aspect of the aortic isthmus (Figure 1).

Ductus arteriosus is a conduit vessel in the fetus connecting the left pulmonary artery and descending aorta. After birth, it begins to close to form the ligamentum arteriosum. The ductus diverticulum (DD) is a focal outpouching (at the aortic side) along the ligamentum arteriosum.

Pseudoaneurysms occur secondary to inflammation, infection, or as a complication of surgery. They are saccular dilatations arising from the aorta with a narrow neck forming an acute angle with the aorta. In contrast, the DD generally has smooth margins and forms obtuse angles with the aorta. Although it is generally considered as a remnant or as an innocent bystander, it is common in acute type B aortic dissection and is independently associated with acute type B aortic dissection. Therefore, the DD can be a source for the primary entry tears in aortic dissection.

In the present case, the absence of an intimal flap, ulcer-like projection on CTA, and clinical presentation with subsequent outcome favor DD diagnosis rather than dissection and intramural hematoma.

In conclusion, radiological evaluation of this rare condition is important to prevent unfavorable outcomes such as aortic dissection.

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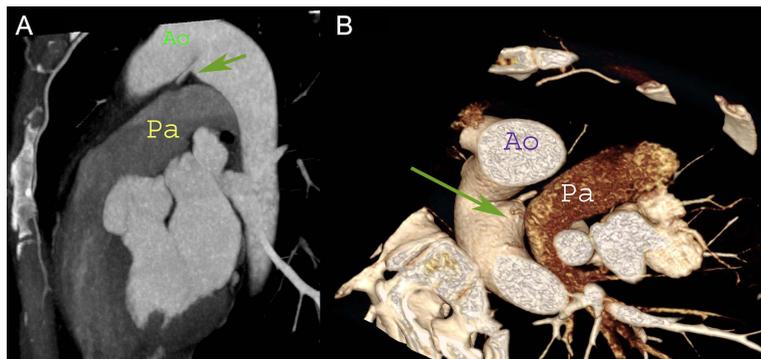


Figure 1. Contrast-enhanced cardiac computed tomographic sagittal maximum intensity projection (MIP) view showing the ductus diverticulum (arrow) (A), contrast-enhanced caudocranial volume-rendered (VR) image showing the ductus diverticulum (arrow) (B). Ao, aorta; Pa, pulmonary artery.

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