

Giant Coronary Artery Aneurysm with a Thrombus

A 29-year-old man presented with angina pectoris who was referred to our hospital because of an abnormal radiographic finding along the left edge of the heart (Figure 1A). Coronary computed tomography showed a huge aneurysm of the proximal left anterior descending artery (dimensions 62 × 46 mm) with intramural thrombus (Figure 1B-D). Subsequent cardiac catheterization revealed that blood was flowing from the first diagonal coronary artery into the aneurysm and also into the pulmonary artery through a fistula (Figure 2A, Video 1). After informed written consent was obtained from the patient, the first diagonal was then thrombosed by deployment of 3 × 0.018" Concerto Helix and 3D detachable embolization coils (Medtronic, USA) proximal to the aneurysm neck using an over-the-wire balloon (Boston Scientific, USA) occluding the aneurysm and fistula (Figure 2B, Video 2). Giant coronary artery aneurysms are often

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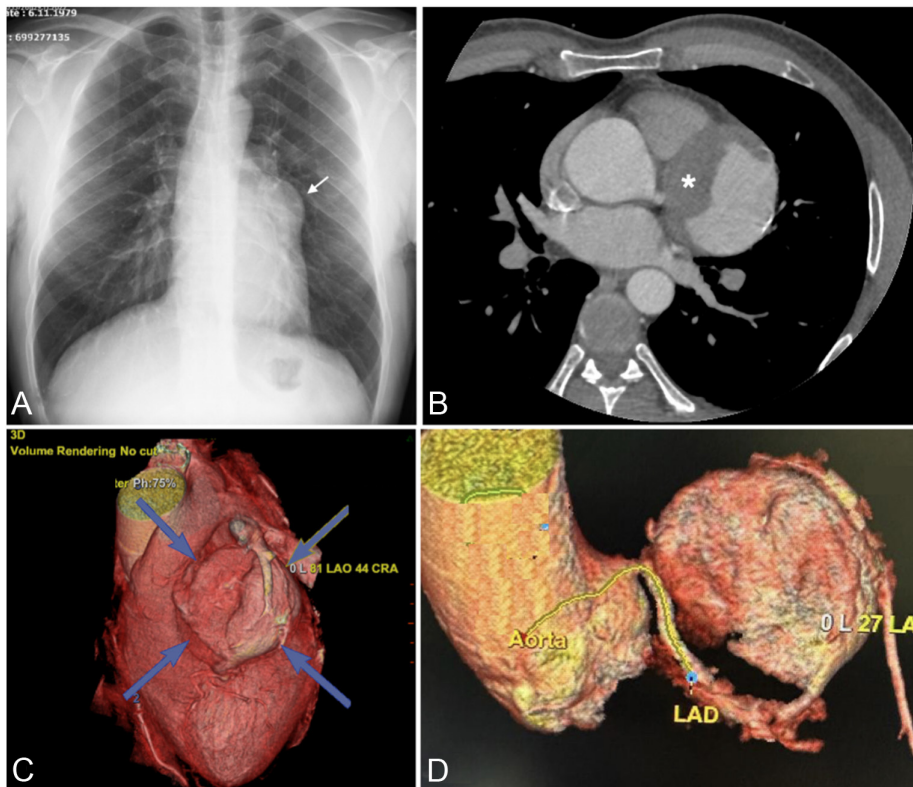


Figure 1. (A) Chest radiograph shows an abnormal radiographic finding along the left border of the heart (arrow). (B) Axial section computed tomography shows the huge aneurysm of the left anterior descending artery with intramural thrombus (asterisk). (C, D) Reconstructed 3D coronary computed tomography shows a large aneurysm involving the proximal left anterior descending artery.

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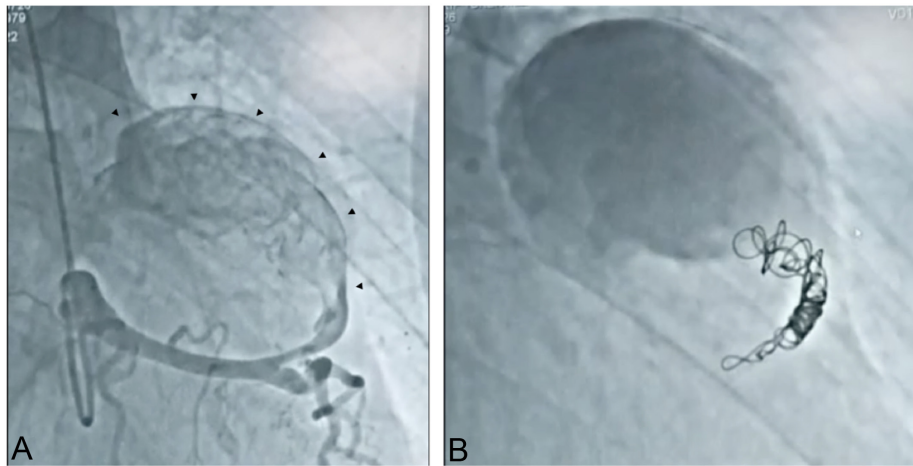


Figure 2. (A) Left coronary angiography in the right oblique projection with cranial angulation shows a giant aneurysm arising from the first diagonal coronary artery (arrowheads). (B) A giant aneurysm successfully treated with coil embolization.

incidental and asymptomatic findings, but complications such as thrombosis, distal embolism, and rupture have been reported.¹ Surgical correction is generally considered the preferred treatment for giant coronary aneurysms, even in asymptomatic patients.² It is now possible to treat selected patients with percutaneous techniques that are less invasive. Percutaneous options include covered stent placement or coil embolization. Our patient made an excellent recovery and was discharged 2 days later.

Informed Consent: Informed consent was obtained from the patient.

Video 1: Left coronary angiography in the right oblique projection with cranial angulation shows a giant aneurysm arising from the first diagonal coronary artery.

Video 2: A giant aneurysm successfully treated with coil embolization.

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