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Coil embolisation of a large distal left anterior descending artery aneurysm

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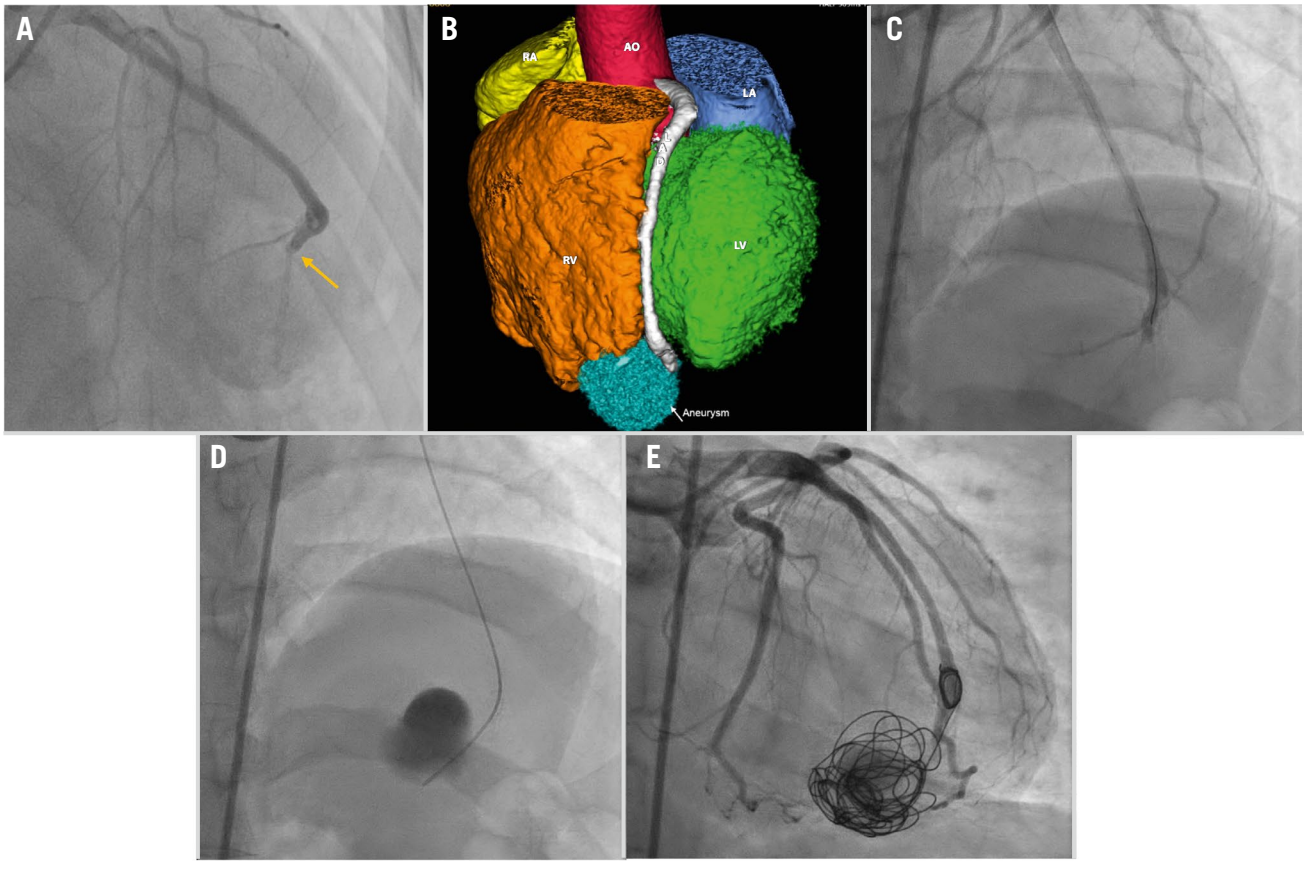

Figure 1. *Management of giant coronary aneurysm. A) The coronary angiogram showed a jet of contrast into a giant coronary aneurysm from the left anterior descending artery (LAD). B) Cardiac computed tomography revealed the presence of a large aneurysm from the LAD burrowed in the apical myocardium of the right ventricle. C) The narrow mouth of the aneurysm was crossed with a balance middle weight (BMW) 0.014" guidewire (Abbott). D) The Progreat microcatheter (Terumo) was advanced into the aneurysm over a BMW 0.014" guidewire. E) Four Concerto detachable coils (Medtronic) were deployed: 3 inside the aneurysm and 1 at the end of the distal LAD. AO: aorta; LA: left atrium; LV: left ventricle; RA: right atrium; RV: right ventricle*

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A coronary artery aneurysm is an enlargement of the coronary artery exceeding 1.5 times the diameter of the adjacent normal segment[1]. A 29-year-old man presented with retrosternal chest pain and exertional dyspnoea, which had been ongoing for 1 month. A coronary angiogram showed an ectatic left anterior descending artery (LAD) with aneurysmal dilatation of ≈3 cm diameter **(Figure 1A, Moving image 1, Moving image 2)**. A cardiac computed tomography angiogram revealed a large contrast-filled aneurysm measuring 3.5 cm x 3.5 cm x 3.2 cm **(Figure 1B)**, seen predominantly filling in the later arterial/delayed phase communicating with the distal LAD. The aneurysm was burrowed in the right ventricular apical myocardium with mild calcification. The patient underwent coiling of the distal LAD aneurysm with 4 coils (Concerto Helix [Medtronic]: 14 mm x 30 cm, 16 mm x 40 cm, 18 mm x 40 cm, 16 mm x 40 cm) **(Figure 1C-Figure 1E, Moving image 3)** and was doing well at 1-year follow-up. Coil embolisation results in occlusion of the aneurysm, formation of organised thrombus, fibrosis, and eventual endothelialisation[2].

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Conflict of interest statement

The authors have no conflicts of interest to declare.

References

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2. Ahmed T, Chahal D, Shkullaku M, Gupta A. Extensive coil embolization of a giant coronary artery aneurysm in an octogenarian: a case report. *Eur Heart J Case Rep*. 2020;4:1-5.

Supplementary data

Moving image 1. Left coronary injection showing a large coronary aneurysm from the distal LAD.

Moving image 2. Injection of contrast directly into the aneurysm through a Progreat microcatheter.

Moving image 3. Left coronary injection after coiling the aneurysm with Concerto detachable coils.

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