

# A giant coronary aneurysm formed after coronary artery bypass grafting

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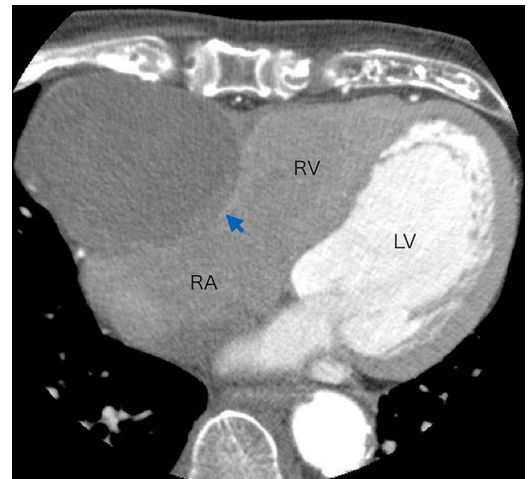
## DESCRIPTION

Although they may be initially asymptomatic, giant coronary aneurysms require monitoring, and they may also require surgical treatment to prevent negative outcomes such as myocardial infarction or death. We report a case of an 82-year-old man who was diagnosed with gastric cancer after haematemesis. A preoperative chest radiography showed cardiac silhouette dilation (figure 1). The patient underwent CT, which revealed a giant right

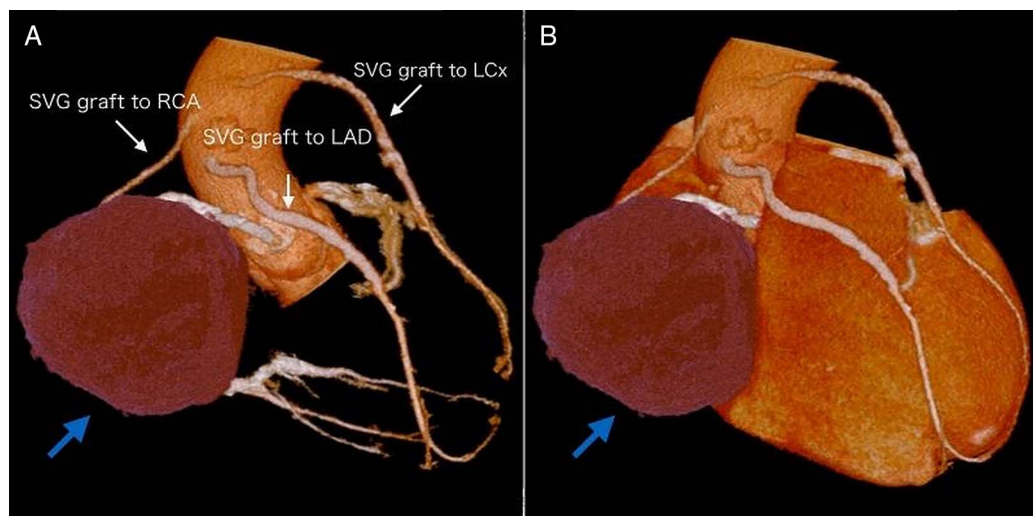
coronary aneurysm (80 mm) that was pressing against the right atrium and ventricle (figures 2 and 3). He had undergone coronary artery bypass grafting (CABG) 24 years prior and experienced heart failure (New York Heart Association (NYHA) class II) for several years. The coronary angiography performed before the CABG showed aneurysmal changes in the mid-right coronary artery, suggesting that chronic wall stress had enlarged the aneurysm. Since the coronary aneurysm was



**Figure 1** Posteroanterior plain chest radiograph showing a cardiac silhouette dilation.



**Figure 2** CT scan showing a huge mass pressing against the right atrium (RA) and ventricle (RV) (LV, left ventricle).



**Figure 3** (A) CT three-dimensional reconstruction of the coronary arteries showing an 8 cm coronary aneurysm. (B) The volume rendered by the CT scan (SVG, saphenous vein graft; LAD, left anterior descending artery; RCA, right coronary artery; LCx, left circumflex artery).



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enlarged 6 months after surgery for gastric cancer, an additional surgery was performed to treat the aneurysm. The thrombus was depleted, and haemostasis was achieved to resolve the oozing from the aneurysm's internal surface. Since only a small

part of the aneurysmal wall was resected because of the presence of strong adhesion, most of the aneurysmal wall was overlapped and sutured. The histological evaluation confirmed the presence of a true aneurysm. Postoperatively, the patient's heart failure improved to an NYHA class I, and his brain natriuretic peptide levels decreased from 481 to 151 pg/mL (normal <8.5 pg/mL). We believe that this case demonstrates a successful outcome of a rare phenomenon.

### Learning points

- ▶ This case demonstrates that a coronary aneurysm can form after coronary artery bypass grafting (CABG).
- ▶ In addition, this case emphasises the importance of careful long-term clinical examination after CABG.

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**Competing interests** None.

**Patient consent** Obtained.

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