A 65-year-old woman with aortic and mitral mechanical prosthetic valves presented with right-sided chest pain. Nine months prior, coronary artery bypass grafting was performed for significant ostial right coronary artery (RCA) and obtuse marginal stenoses. Due to bleeding from the proximal anastomosis of the saphenous vein graft (SVG) to the RCA, urgent sternotomy for repair was required. A subsequent chest radiograph showed a small, rounded structure in the right mediastinum near the aortic arch.

On presentation, a chest radiograph showed a nodular opacity in the right anterior mediastinum adjacent to the aorta, enlarged compared to the prior study (Panels A and B). Single phase-contrast-enhanced chest computed tomography (CT) demonstrated a 3.7 × 4.1 cm, mixed-attenuation, rounded lesion with contrast opacification, extending inferiorly to the region of the proximal anastomosis of the SVG to RCA (Panel C). A transthoracic echocardiogram revealed swirling flow into this structure from the ascending aorta, consistent with a pseudoaneurysm (Panels E and F, Supplementary data online, Video 1 and 2).

Coronary angiography and aortography revealed a proximal RCA graft pseudoaneurysm and 70% obstruction at the ostial SVG anastomosis to the RCA. Percutaneous transluminal coronary angioplasty with subsequent covered bare metal stent deployment was performed at the ostium of the SVG to RCA, with elimination of extravasation into the pseudoaneurysm (Panels G and H, Supplementary data online, Video 3 and 4).

The patient’s chest pain resolved. A follow-up CT angiogram showed successful obliteration of the communication between the RCA bypass graft and pseudoaneurysm. The excluded pseudoaneurysm had decreased in size, with no evidence of contrast opacification (Panel D).

**Conflict of interest:** none declared.

(Panel A and B) Chest radiograph with a small rounded mass in the right mediastinum near the aortic arch (A; arrowhead). Nine months later showing an enlarged right mediastinal mass (B; white arrow). (Panel C) Contrast-enhanced chest computed tomography revealing pseudoaneurysm at the origin of the SVG to RCA off the ascending aorta. Ao, aorta; PA, pseudoaneurysm. (Panel D) A follow-up contrast-enhanced computed tomography angiogram demonstrating obliteration of the communication with the pseudoaneurysm. Ao, aorta. (Panels E and F, Supplementary data online, Video 1 and 2) Right parasternal view; transthoracic echocardiogram showing a large echolucent space with communication to the aorta by colour flow imaging. (Panel G, Supplementary data online, Video 3). A coronary angiogram showing extravasation of dye into the pseudoaneurysm and 70% obstruction at the graft. PA, pseudoaneurysm. (Panel H, Supplementary data online, Video 4) Successful covered bare metal stent deployment at the graft origin to the RCA, with no residual contrast extravasation into the pseudoaneurysm (arrowhead).

Supplementary data are available at European Heart Journal — Cardiovascular Imaging online.