Saphenous venous graft pseudoaneurysm masquerading as a liver mass

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A 72-year-old man presented for assessment after bypass grafting five years previously. On echocardiography, left ventricular function was normal. A mass (arrow) near the liver (Figure 1A), compressing the right atrium (RA) and right ventricle (RV), was visualized. An abdominal computed tomography scan was performed, revealing no abdominal mass. Limited thoracic cuts suggested the mass was attached to the right saphenous venous graft (SVG); a right SVG aneurysm was suspected. Cardiac catheterization was performed, revealing complete occlusion of

the right coronary artery, but no evidence of an SVG aneurysm (Figure 1B). Dedicated thoracic computed tomography was performed, revealing a mass (arrow) connected to the right SVG via a narrow neck (Figure 1C), consistent with an SVG pseudoaneurysm.

The patient underwent surgical removal of the mass and repeat right coronary artery grafting. During surgery, a large mass wrapping around the right SVG was evident (Figure 2A). Macroscopic examination revealed a 12 cm × 10 cm × 6.5 cm mass (Figure 2B) with a

Figure 1

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Figure 2

thrombosed connection to the right SVG. The patient's postoperative course was uneventful and he was discharged home six days later.

SVG pseudoaneurysms are rare complications of bypass grafting, caused by technical error, infection or suture rupture (1). As opposed to true SVG aneurysms, pseudoaneurysms are complete SVG ruptures, contained by surrounding tissue, with a characteristic narrow neck. In the present case, the thrombosed neck prevented entry of contrast into

the pseudoaneurysm from the SVG, precluding visualization during coronary angiography.

REFERENCE

1. Le Breton H, Pavin D, Langanay T, et al. Aneurysms and pseudoaneurysms of saphenous vein coronary artery bypass grafts. *Heart* 1998;79:505-8.