

IMAGES IN INTERVENTION

Left Internal Mammary Artery Graft Decompression by Covered Stent Treatment of an Adjacent Saphenous Vein Graft Pseudoaneurysm

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A 75-year-old man with a history of coronary artery bypass grafting and recent pacemaker site infection was transferred to our institution for treatment of a descending aortic pseudoaneurysm. A computed tomography scan performed upon arrival also revealed a suspected mycotic aneurysm of the saphenous vein bypass graft to the circumflex coronary artery. Following infectious disease consultation, the descending aortic pseudoaneurysm was treated with an endograft, and the patient underwent cardiac catheterization. This revealed not only the pseudoaneurysm of the saphenous vein bypass graft to the circumflex (Fig. 1), but associated compression of the left internal mammary artery graft to the left anterior descending coronary artery (Fig. 2). Additionally, the patient was found to have an ischemic cardiomyopathy with an ejection fraction of 30% and anteroapical hypokinesis. Ventricular function had been normal just a few months before. The patient was deemed not to be a surgical candidate. Following a complete course of antibiotic therapy for methicillin-susceptible *Staphylococcus aureus*, repeat discussion with infectious disease specialists, and institutional review board approval for their off-label use, 2 Jostent Graftmaster (Abbott Vascular, Abbott Park, Illinois) prostheses were deployed in the saphenous vein graft to the native circumflex coronary artery (Fig. 3). This excluded the pseudoaneurysm, restored normal flow to the distal native circumflex (Fig. 4), and within 1 week resulted in decompression of the

left internal mammary artery to the left anterior descending artery (Fig. 5). The patient was discharged home on long-term dual antiplatelet and suppressive antibiotic therapy. Follow-up echocardiography revealed normal left ventricular function.

Mycotic aneurysms remain an uncommon clinical occurrence, usually in the setting of infective endocarditis or endovascular infections. There are only a few case reports of mycotic aneurysms of the native coronary arteries and fewer in bypass grafts (1–4). Surgical treatment has been the mainstay of therapy but carries a high risk for those patients with multiple co-

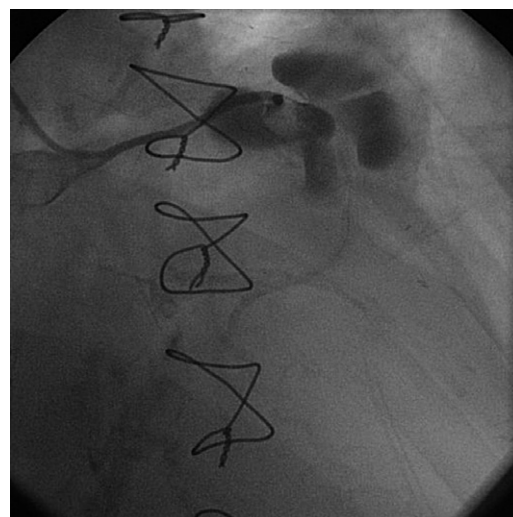


Figure 1. Pseudoaneurysm of the Saphenous Vein Graft to the Obtuse Marginal Branch

A rapidly filling pseudoaneurysm of the saphenous vein graft to the obtuse marginal branch was found on diagnostic coronary angiography with poor distal filling.

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Figure 2. LIMA Compressed by Large Pseudoaneurysm

The left internal mammary artery (LIMA) graft appeared to be compressed by the large pseudoaneurysm.

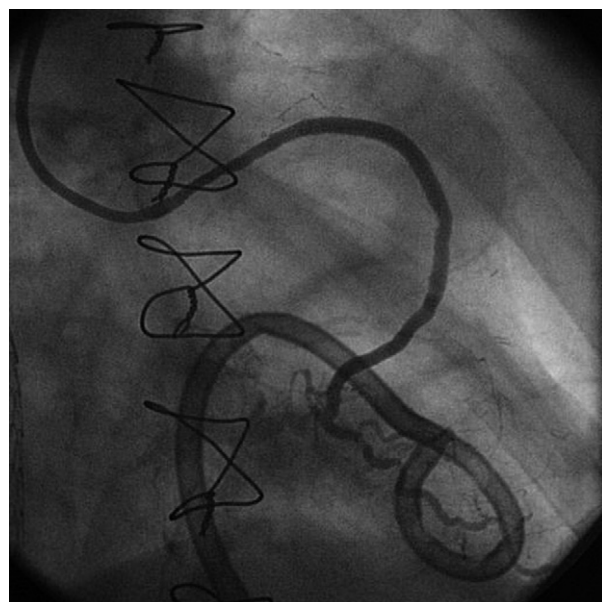


Figure 4. Angiography of the Saphenous Vein Graft 5 Days After Intervention

Angiography of the saphenous vein graft to the circumflex marginal 5 days after the intervention. The pseudoaneurysm is no longer seen.



Figure 3. Post-Intervention Image Showing Restoration of Flow to the Obtuse Marginal

An immediate post-intervention image of the saphenous vein graft showing restoration of the flow in the distal native circumflex marginal with residual contrast in the excluded cavity.

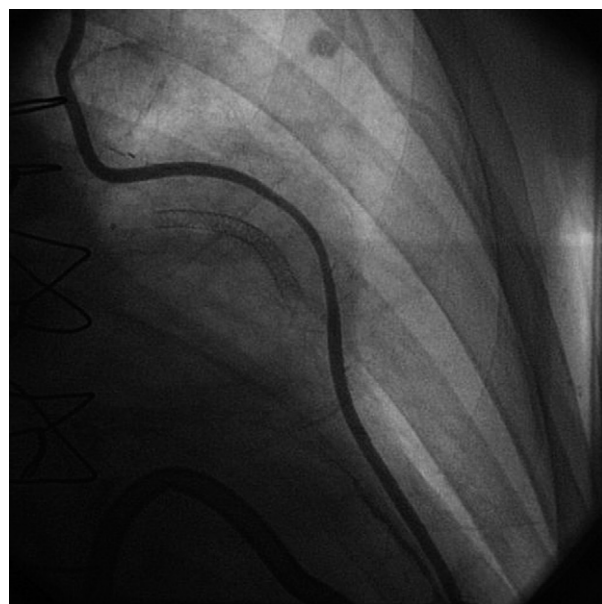


Figure 5. Angiography of LIMA Graft 5 Days After Intervention

Angiography of the left internal mammary artery (LIMA) graft 5 days after the vein graft pseudoaneurysm was treated. The previously observed compression along the course of the left internal mammary artery is much improved.

morbidities. The percutaneous approach used in this patient offers a suitable alternative to surgery, but the long-term risk of recurrent infection is unknown.

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