Pseudoaneurysm of left ventricular apex caused by a left ventricular venting catheter through the right superior pulmonary vein

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We report a case of left ventricular pseudoaneurysm secondary to a left ventricular venting catheter through the right superior pulmonary vein during aortic dissection surgery. Despite our strong recommendation for surgery, the patient refused.

Clinical Summary

A left ventricular pseudoaneurysm secondary to a left ventricular venting catheter through the pulmonary vein is rarely reported.¹ An 85-year-old female patient was admitted with fever

Figure 1. Comparison of preoperative and postoperative CT scans at the same level. A, B, Preoperative CT scan without evidence of the left ventricular pseudoaneurysm. C, D, Postoperative CT scan showing pseudoaneurysmal change of the left ventricular apex.

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Figure 2. Postoperative echocardiogram. **A**, 2.62×2.77 -cm pseudoaneurysm at the left ventricular apex. **B**, Flow through the neck of the pseudoaneurysm.

and abdominal pain, and pneumonia was diagnosed. During the discharge plan, sudden fever and chest pain developed in the patient. An electrocardiogram, a cardiac enzyme study, and a chest computed tomographic (CT) scan were performed to evaluate her symptoms. Other study results proved normal, but the chest CT scan showed type A aortic dissection. The ascending aorta and part of the arch were replaced by artificial grafts. Total circulatory arrest and selective cerebral perfusion were induced with axillary artery cannulation and a left ventricular venting catheter through the right superior pulmonary vein. There was severe pericardial adhesion, and a dissection of the adhesion was performed minimally only for the operation. The operation was uneventful, and 3 days later the patient was transferred to the general ward.

Discussion

Twenty days after the operation, a follow-up CT scan was performed, showing a pseudoaneurysm of the left ventricular apex (Figure 1). A follow-up echocardiogram also showed muscular disruption at the left ventricular apex with a 6.0 m/sec

flow through the neck of the pseudoaneurysm (Figure 2). Because there was no evidence of perioperative myocardial ischemia, such as an electrocardiogram change, a cardiac enzyme elevation, or a regional wall motion abnormality around the pseudoaneurysm, the pseudoaneurysm may have resulted from trauma to the left ventricular apex by the tip of the left ventricular venting catheter. It is likely that the left ventricular muscle damage during the operation was not seen because of the pericardial adhesion.

Despite our strong recommendations for surgery, the patient refused and was discharged. One month later, a follow-up echocardiogram showed no interval change.

Reference

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Pseudoaneurysm of a saphenous bypass treated with covered endograft in the ascending aorta

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Aneurysms and pseudoaneurysms complicating aorta-coronary bypasses with the saphenous vein are a rare but possibly underestimated complication. Riahi and associates¹ reported the first case in 1975. We report the first case of a saphenous bypass pseudoaneurysm treated with a homemade endograft in the ascending aorta.

Clinical Summary

A 78-year-old man was referred to our hospital with an enlarging left hilar mass found on a routine chest x-ray film. His medical history included chronic renal insufficiency with dialysis, chronic heart failure, aorta-bifemoral bypass, and double aorta-coronary bypass grafting 17 years ago. He had undergone