

# An Unusual Cause of Right Ventricular Ischemia: Saphenous Venous Graft to Pulmonary Artery Fistula

Tugba Aktemur<sup>1</sup>, Serkan Kahraman<sup>1</sup>, Aysel Turkvatan<sup>1</sup>, and MEHMET ERTURK<sup>1</sup>

<sup>1</sup>Istanbul Mehmet Akif Ersoy Gogus Kalp Ve Damar Cerrahisi Egitim Ve Arastirma Hastanesi

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## Abstract

Saphenous venous graft to pulmonary artery fistula is a rare condition. Below we report a case with saphenous venous graft to left pulmonary artery fistula presenting with coronary ischemia and right heart failure in the literature. 61 year-old male patient was admitted to our emergency department with exertional chest pain. He had previous history of coronary artery bypass graft (CABG) operation. The transthoracic echocardiogram displayed normal left ventricular ejection fraction (55%). However, right ventricular systolic functional parameters were decreased, tricuspid annular plane systolic excursion (TAPSE) and tricuspid annular systolic velocity were found as 13mm and 7 cm/sec, respectively. Coronary angiography represented critical stenosis in native coronary arteries. Left internal mammary arterial graft (LIMA) to LAD remains to be patent. Aorto-CXA saphenous venous graft was also patent. Aorto-RCA and LAD septal sequential saphenous venous graft was patent in RCA course, a fistula from Aorto-RCA and LAD septal sequential venous graft to left pulmonary artery was observed. Coronary computed tomography clearly represented the fistula from venous graft to pulmonary artery. The patient was discussed by Heart Team and re-operation was decided, the patient declined the operation and he was discharged from the hospital under medical therapy. Acquired coronary artery fistulas mostly develop after CABG surgery; moreover, they may be related to trauma, neoplasm or infection. They may develop in various areas, there are several data reporting coronary artery fistulas from LIMA or saphenous grafts to pulmonary artery. To the best of our knowledge, this current case was the first case report demonstrating the saphenous venous graft fistulization without venous aneurysm to pulmonary artery linked to right ventricle failure and coronary ischemia together without any other underlying cause to explain the right heart failure.

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