

## Late Myocardial Ischemia Induced by a Large Fistula Between Left Internal Mammary Graft and Left Pulmonary Vein System

Sinan Dağdelen, Tuğrul Norgaz, Şevket Görgülü

Department of Cardiology, Faculty of Medicine, Acıbadem University, İstanbul, Turkey

A coronary fistula is an extremely rare coronary artery anomaly and its incidence is 0.08-0.4% (1). A fistula between the Left internal mammary graft (LIMA) graft and pulmonary vein after a coronary artery bypass graft (CABG) is a very rare event, which can result in recurrence of anginal symptoms related to coronary steal (2). We present a 57 year old male patient who had coronary bypass surgery 3 years earlier with a fistula between the LIMA graft and left pulmonary vein after CABG surgery. His ECG on admission revealed sinus rhythm with 1 mm ST depression in precordial leads V4 to V6. The patient was complaining of anginal symptoms with minimal exertion under medical care. Myocardial scintigraphy revealed large anteroseptal ischemia. The patient underwent coronary angiography and this revealed a critical stenosis in the middle of the aorto-right coronary bypass graft composed of a severe thrombotic component and critical stenosis of the proximal left anterior descending artery (LAD) with a patent distal runoff. LIMA graft angiography showed a large fistula draining to the left pulmonary vein system and then left atrium, which was causing cutting off of the distal blood supply of the LIMA

graft to the LAD (Figure 1 and Video 1). The management of each individual patient who has LIMA graft fistula should depend on the anatomy of the fistula, clinical picture and the presence or absence of associated cardiac conditions. In our case, we decided to use warfarin and clopidogrel therapy for 2 months to decrease the amount of thrombus in the aorto-coronary saphenous graft then percutaneous stenting for the aorto-right coronary graft and the proximal LAD.

**Video 1.** Shows blood supply from left internal mammary graft to left pulmonary vein system and then left atrium

### References

1. McNamara JJ, Gross RE. Congenital coronary artery fistula. *Surgery* 1969;65:59-69.
2. Bijlul S, Namboodiri N, Nair K, Ajitkumar VK. Native vessel angioplasty as treatment strategy for left internal mammary artery to pulmonary vasculature fistula producing coronary steal phenomenon. *Int J Cardiol* 2009;133:e25-7. [CrossRef]

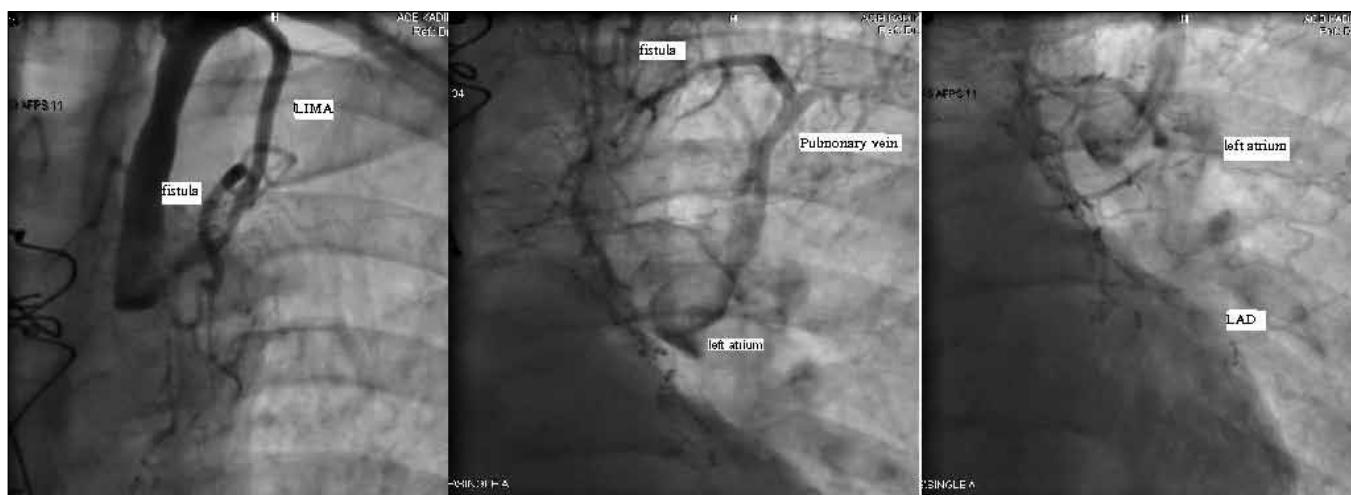


Figure 1. Large fistula draining from left internal mammary graft to left pulmonary vein system and then left atrium