Anadolu Kardiyol Derg
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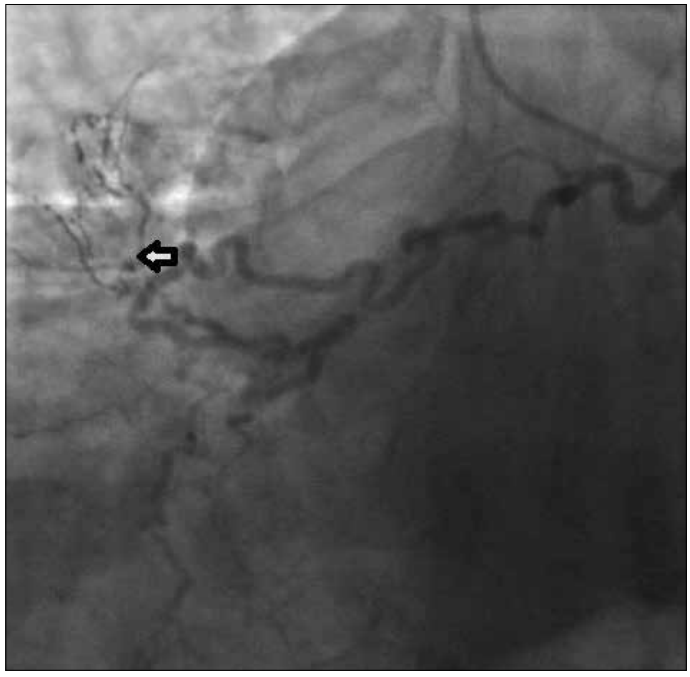

**Figure 3. An anomalous tortuous vessel course to the lower lobe of the right lung**

**Figure 4. Computer tomography images of a right bronchial artery arising from the mid portion of the circumflex artery**

responding video/movie images at www.anakarder.com). Computer tomography images demonstrated a large vessel arising from the circumflex artery. This artery passed posteriorly into the mediastinum and was going to the lower lobe of the right lung (Fig. 4). To our knowledge, this is the first case an anomalous right bronchial artery originating from the circumflex artery, co- existing with a bifid origin of the right coronary artery. The indications for treatment of this anomalous artery include the myocardial ischemia (coronary steal phenomenon), left ventricular dysfunction, massive hemoptysis and bronchiectasis. Our patient presented with atypical chest pain and the anomalous artery was revealed incidentally during cardiac catheterization.

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**Video 1.** A diagnostic right coronary angiography view of a bifid origin of the right coronary artery
**Video 2.** Left coronary angiogram demonstrates an anomalous right bronchial artery originating from the circumflex artery

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# A successful percutaneous treatment of a iatrogenic anastomosis between internal mammary artery and great cardiac vein

## *İç meme arteri ve ana kardiyak ven arasındaki iatrojenik anastomozun perkütan yolla tedavisi*

A 51-year-old hypertensive and diabetic male with history of a coronary bypass operation (CABG) two months ago presented with effort dyspnea and angina. An anterior extensive ischemia was detected in myocardial perfusion scintigraphy. His coronary angiogram showed total occlusion of the proximal segment of left anterior descending artery (LAD) and saphenous grafts to the circumflex artery and the right coronary artery were patent (Fig. 1 panel A and Video 1. See corresponding

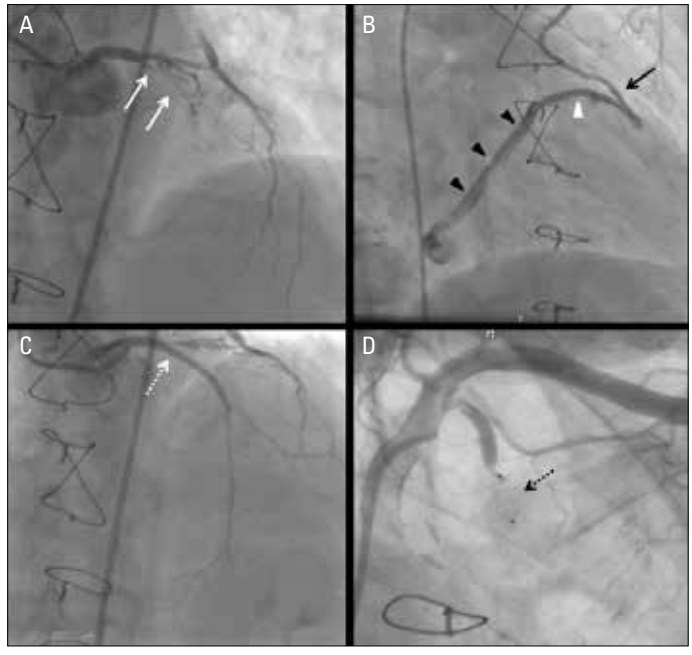


**Figure 1. A) Total occlusion of the proximal LAD (white arrows) is seen, B) Selective LIMA (black arrow) angiogram showing its anastomosis to the interventricular vein (white arrow) draining into the coronary sinus (black arrowheads), C) LAD (dotted arrow) after stenting, D) LIMA successfully occluded by vascular plug (black dotted arrow)**
LAD - left anterior descending artery, LIMA - left internal mammarian artery

video/movie images at www.anakarder.com). Left internal mammary artery (LIMA) angiogram showed that it was anastomosed to the anterior interventricular vein instead of LAD (Fig. 1 panel B and Video 2. See corresponding video/movie images at www.anakarder.com). Drainage into the coronary sinus was seen. Even though redo CABG was planned, the patient refused surgery. Thus, percutaneous intervention of the chronic total occlusion was performed, and a drug-eluting stent was implanted successfully (Fig. 1 panel C and Video 3. See corresponding video/movie images at www.anakarder.com). An Amplatzer vascular plug was deployed to the proximal segment of LIMA. The follow-up angiogram demonstrated complete cessation of flow in the LIMA (Fig. 1 panel D and Video 4. See corresponding video/movie images at www.anakarder.com).

LIMA graft anastomosis to a cardiac vein is a very rare complication seen in CABG. Redo surgery is usually the preferred mode of treatment for this condition but percutaneous intervention can also be performed in selected cases. Percutaneous LIMA graft occlusion can be achieved antegradely using coils, detachable balloons and vascular plug devices or the LIMA graft can be occluded retrogradely by deploying a covered stent in the cardiac vein at the site of the LIMA anastomosis.

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**Video 1.** Angiogram showing total occlusion of LAD and patent saphenous vein grafts
LAD - left anterior descending artery
**Video 2.** Angiogram showing LIMA anastomosed to the anterior interventricular vein
LIMA - left internal thoracic artery
**Video 3.** Angiogram of LAD after percutaneous intervention
LAD - left anterior descending artery
**Video 4.** Angiogram of LIMA after Amplatzer vascular plug implantation showing cessation of flow
LIMA - left internal thoracic artery

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# Multiple septal coronary cameral fistulas may cause myocardial ischemia

## *Çoklu septal koroner kameral fistüller miyokardiyal iskemiye neden olabilir*

Coronary artery fistulas can be between an epicardial coronary artery and a cardiac chamber (coronary- cameral fistulae). Depending on the type of fistula, shunt volume and site of the shunt the clinical presentations are changing. A 70-year-old female with past medical history of hypertension was admitted to our clinic with chest pain that related with exercise. Blood pressure and heart rate were 145/90 mmHg and 78 bpm respectively. Heart and respiratory auscultation findings were normal. There were dynamic changes of electrocardiogram with ST segment depression on V1-4 leads during the chest pain on an outside center which are resolved during presentation to our clinic. Transthoracic echocardiography showed normal left ventricular (LV) systolic function (ejection fraction: 68%) and no severe valvular heart disease. Myocardial perfusion scintigraphy showed anterior and anteroseptal wall ischemia. Coronary angiography showed no critical atherosclerotic lesions in the coronary arteries; however, septal arteries communicated with the LV cavity through multiple small, diffuse fistulas, resulting in complete LV endocardium contrast opacification (Fig. 1A, B and Video 1, 2. See corresponding video/movie images at www.anakarder.com). On the diastole phase of the LV the endocardium was opacified and it was vanished during the systole phase when the septal fistulas were compressed. The anterior wall ischemia that was shown

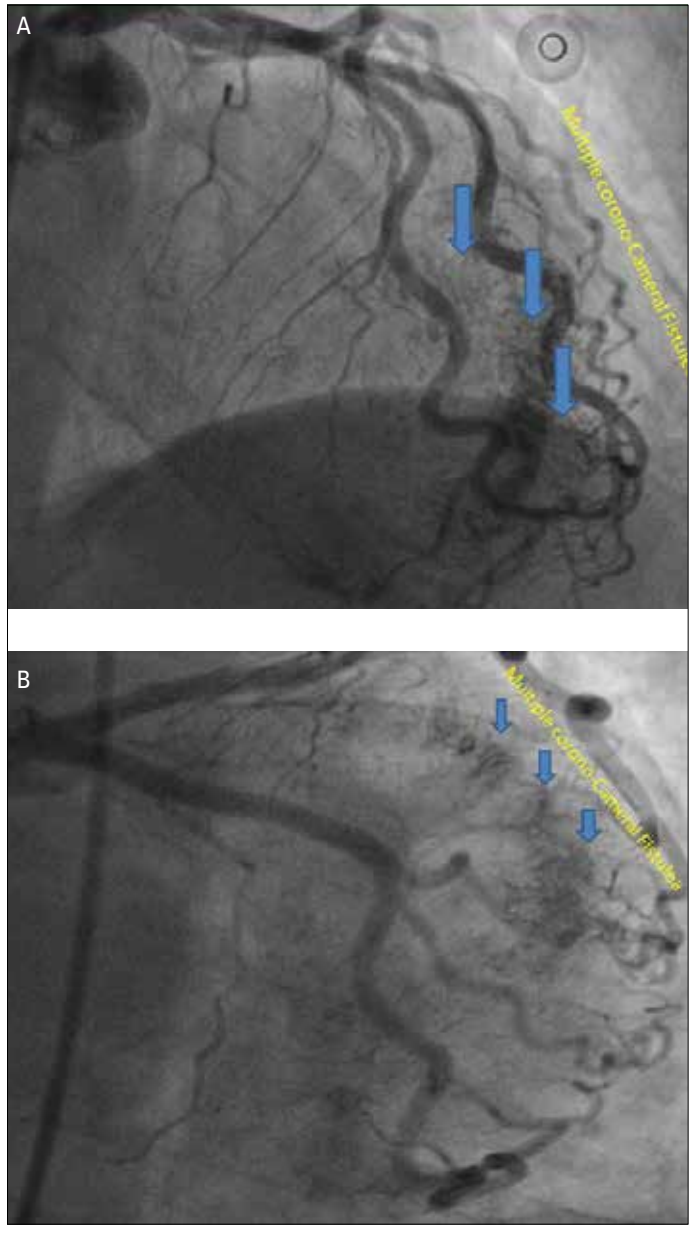


**Figure 1 A, B. Multiple corono-cameral fistulas on right-anterior oblique/caudal and cranial projection coronary angiography views**