ejection fraction of 65%, and normal left ventricular wall motions and valve function. Transesophageal echocardiography (TEE) performed due to suspicion of anomalous origin of right coronary artery on basal short-axis view of TTE. Aortic short-axis view on TEE revealed, both right coronary artery (RCA) and left main coronary artery (LMCA) were originated from the left sinus Valsalva and RCA was extending through to anterior after passing between aorta and pulmonary artery. Diagnosis of anomalous origin of RCA was corrected with 3-dimensional real-time TEE (Fig. 1a-c and Video 1-4. See corresponding video/movie images at www.anakarder.com). Extension of RCA was the same as TEE findings and there was no lesion of coronary arteries in the 64-slice multidetector computerized tomography (Fig. 1d-f). Holter recordings were normal and Technetium-99m scintigraphy findings were normal. The patient was started medical therapy. The patient is on regular follow up. A rare coronary artery anomaly can be diagnosed with a careful echocardiographic examination.

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Video 1. TEE image from 65 degree upper esophageal level shows an anomalous origin of the right coronary artery from the left sinus of Valsalva
Video 2. TEE image from 35 degree upper esophageal level shows an Anomalous origin of the right coronary artery from the left sinus of Valsalva and courses between the aorta and the pulmonary artery
Video 3. TEE image from color Doppler 35 degree upper esophageal level shows an anomalous origin of the right coronary artery from the left sinus of Valsalva and courses between the aorta and the pulmonary artery
Video 4. 3D RT TEE shows an anomalous origin of the right coronary artery from the left sinus of Valsalva and courses between the aorta and the pulmonary artery
3D RT - 3 - dimensional real - time, TEE - transesophageal echocardiography

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Bifid origin of the right coronary artery, coexisting with an anomalous right bronchial artery originating from the circumflex coronary artery

Sirkumfleks arterden kaynaklanan sağ bronşiyal arter anomalisi ve iki ostiyumlu sağ koroner arter

Anomalous origin of the coronary artery is a well-known phenomenon however anomalous bronchial arteries are rarely seen and may originate from various vascular structures. We report a patient with atypical angina whom there was bifid origin of the right coronary artery, coexisting with an anomalous right bronchial artery originating from the circumflex coronary artery. A 45-year-old man who with history of dyslipidemia was admitted to our institution having atypical chest pain for two year. Her electrocardiography showed normal findings. Her examination was unremarkable except for systolic murmur in the mitral area upon auscultation. The results of her laboratory tests were all normal, except for elevated low-density lipoprotein and cholesterol levels. Transthoracic echocardiography showed that ejection fraction was 60% and mild mitral regurgitation. Selective coronary artery angiography was performed to rule out ischemic heart disease and demonstrated a large, tortuous vessel arising from the circumflex artery and bifid (Y) origin of the right coronary artery (Fig. 1-3, Video 1, 2. See cor-

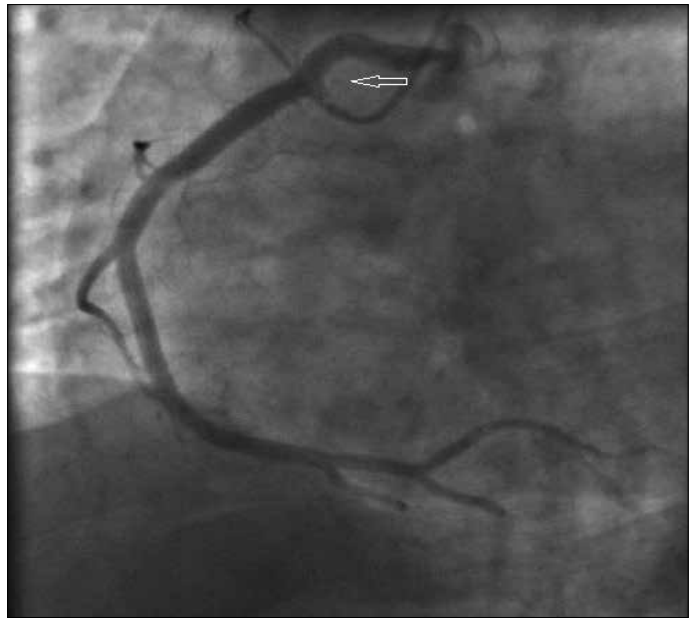

Figure 1. A diagnostic right coronary angiography view of a bifid origin of the right coronary artery

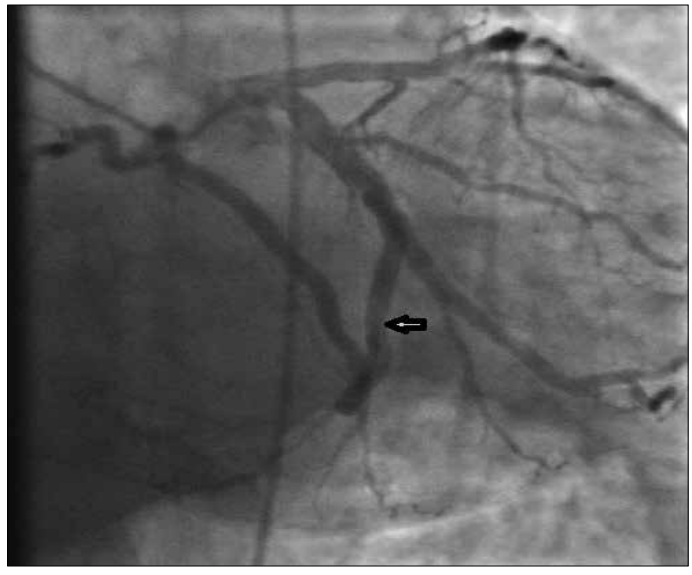

Figure 2. Left coronary angiogram demonstrates an anomalous right bronchial artery originating from the circumflex artery

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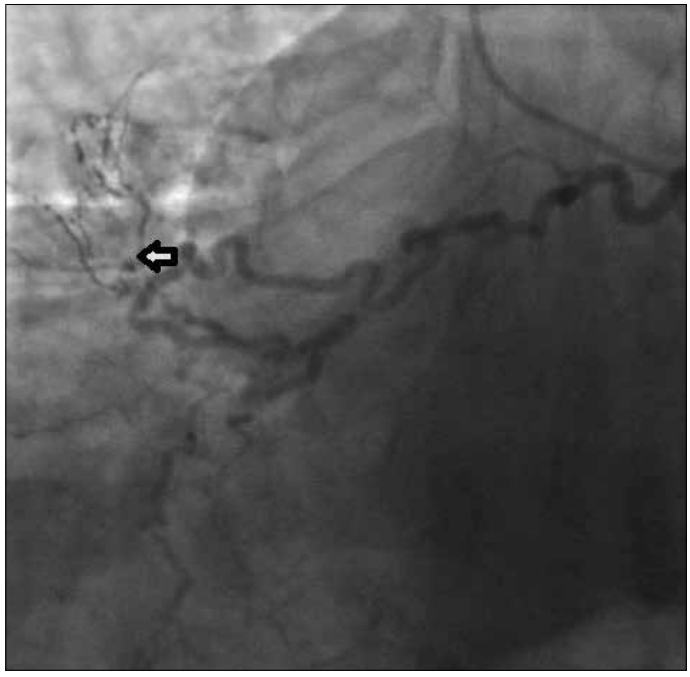

Figure 3. An anomalous tortuous vessel course to the lower lobe of the right lung

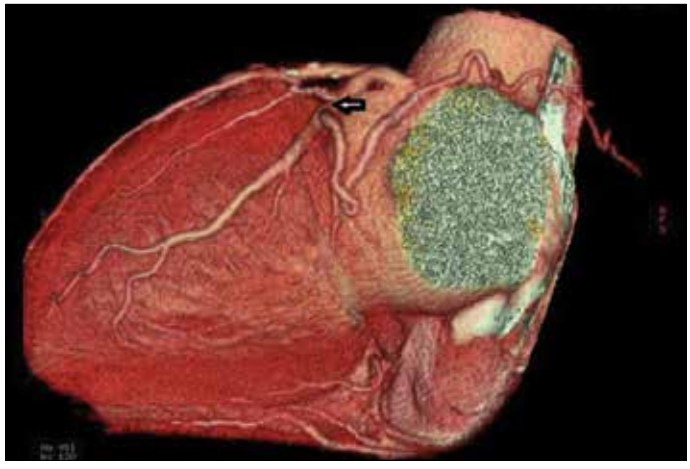

Figure 4. Computer tomography images of a right bronchial artery arising from the mid portion of the circumflex artery

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

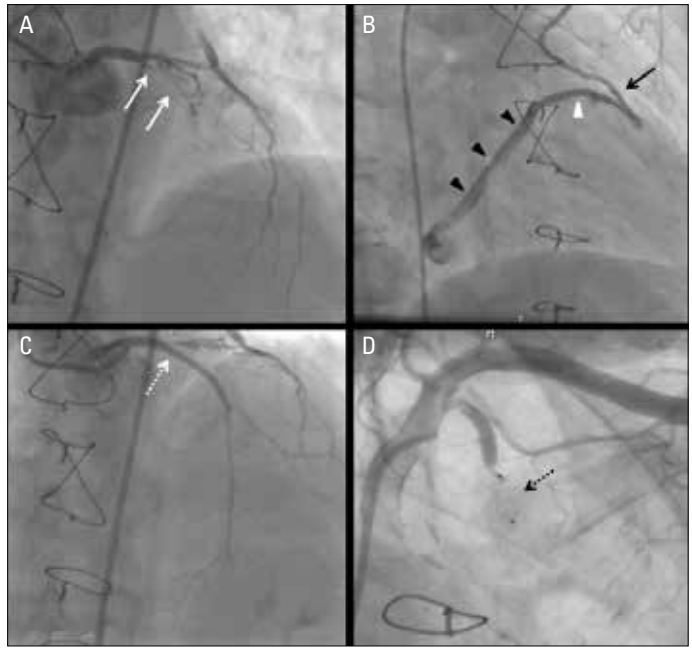

Figure 1. A) Total occlusion of the proximal LAD (white arrows) is seen, B) Selective LIMA (black arrow) angiogram showing its anastomosis to the interventricular vein (white arrow) draining into the coronary sinus (black arrowheads), C) LAD (dotted arrow) after stenting, D) LIMA successfully occluded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