Unidirectional intercoronary communication: a very rare coronary anomaly and cause of ischemia

Tek yönlü interkoroner bağlantı: Çok nadir bir koroner anomali ve iskemi nedeni

A 58-year-old man presented to the outpatient clinic with chest pain occurring at physical activity. He had hypertension as a risk factor for coronary artery disease. Cardiac and other system examinations were normal. Resting electrocardiography showed negative T wave in the right precordial leads. Transthoracic echocardiography was normal. Myocardial perfusion scintigraphy showed hypoperfusion in the apicolateral and inferior segments suggestive of ischemia. Angiography of the left coronary system was normal (Fig. A). Selective injection of the right coronary artery showed retrograde filling of the circumflex artery. A careful examination showed that retrograde filling was not related to collaterals, but to a unidirectional intercoronary communication (Fig. B). Unidirectional feature and consequent coronary steal phenomenon were thought to be the cause of ischemia. Anti-ischemic medications provided an uneventful follow-up of six months.

Figures. (A) Injection of the left coronary system showing no luminal stenosis in the circumflex (Cx) and left anterior descending (LAD) arteries. (B) Right coronary injection in the left anterior oblique view shows retrograde filling of the Cx artery with a unidirectional intercoronary communication. RCA: Right coronary artery.