Catheter induced right coronary artery dissection in its three segments

Üç ayrı segmentinde kateterin neden olduğu sağ koroner arter disseksiyonu

Tekin Yıldırım, Cihan Çevik, Servet Çevik*, Nuri Kurtoğlu*, İsmet Dindar*

From Departments of Cardiovascular Surgery and *Cardiology, Göztepe Şafak Hospital, İstanbul, Turkey

A 49-year-old female patient was admitted to our clinic with complaints of effort angina for two months. She had history of severe uncontrolled hypertension and type II diabetes mellitus. She had family history of coronary artery disease. Her physical examination and electrocardiogram (ECG) were normal. Coronary angiography revealed 70% concentric lesion in her left circumflex (Lcx) coronary artery. There were 40% non-critical lesions in her mid left anterior descending and mid right (RCA) coronary arteries. Left ventricular systolic function was normal. Elective LCx angioplasty was planned, and medical therapy was initiated. Six months later, she had been admitted again, and successful percutaneous transluminal coronary angioplasty (PTCA)-Stent intervention was performed to the LCx. After PTCA procedure, right coronary angiography was performed to detect the progression of RCA lesion. During the right coronary angiography, after proximal deep positioning of diagnostic catheter, the contrast agent was tracked down the artery over the course of injection and it was failed to clear off on fluoroscopy. Prompt diagnosis of RCA dissection was considered, and the patient became hemodynamically unstable with the signs of serious myocardial ischemia. Figure 1 shows dissection flap in proximal, mid and distal RCA. Emergent coronary bypass graft surgery was planned, however, her ECG revealed complete atrioventricular block and ST elevation in the inferior leads. Temporary pacemaker was placed and proximal and mid RCA dissections were stented. Distal flap was not stented since clear discrimination between false and true lumen could not be made and her chest pain recovered. Her clinical condition improved, and the patient was managed in the coronary care unit. Her medical therapy was regulated and she was discharged after three days.

Catheter induced coronary artery dissections are rare clinical conditions. Severe hypertension, diabetes and inborn defects of endogenous collagen facilitate dissections to extend throughout the vessel and impede coronary flow. Early diagnosis and treatment is life-saving as in our case.

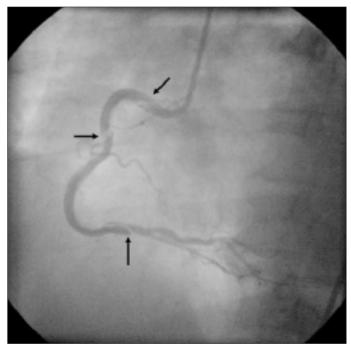


Figure 1. Catheter induced right coronary artery dissections are seen in proximal, midportion and distal segments (three black arrows)