

Giant Coronary Artery and Slow Flow Phenomenon in Young Patient with Acute Coronary Syndrome

Akut koroner sendrom geçiren genç hastada dev koroner arter ve yavaş akım fenomeni

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A 32-year-old man, with no known coronary risk factors and no history of smoking or recreational drug use presented our emergency department with the complaint of chest pain in an unstable manner. His physical examination was unremarkable; his blood pressure was 125/80, his pulse rate was 82 beats/min and his electrocardiogram (EKG) demonstrated no speciality. But cardiac enzyme results were suggestive of myocardial damage (a creatinine phosphokinase level of 1126 U/L, a CPK-MB fraction of 106 ng/mL, and a troponin-I of 22,4 ng/mL). The patient was taken emergently to the coronary angiography laboratory, where he was found to have diffuse ectasia of the left anterior descending coronary artery (LAD) (Figure 1 A-F). Right coronary artery (RCA) (Figure 2 A-F) was also diffusely ectatic. The phenomenon of coronary slow flow (CSFP) as observed during coronary angiography is characterized by delayed opacification of the distal coronary segments in the absence of epicardial coronary disease.

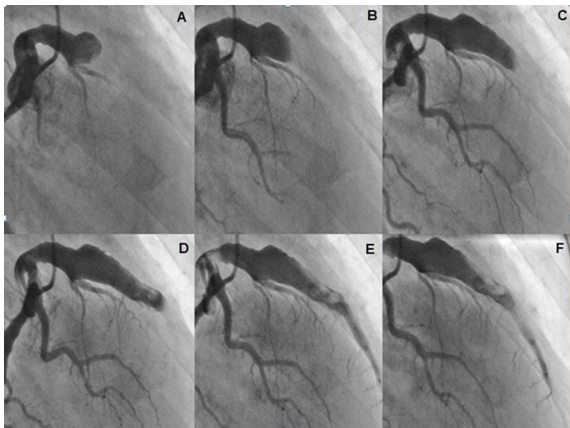


Figure 1 A-F. Selective left coronary angiogram demonstrating ectasia and slow flow phenomenon.

Coronary artery ectasia have been defined as a dilatation in a coronary artery segment to more than 1.5 times the diameter of adjacent normal coronary segments (1). CSFP during coronary angiography is characterized by the delayed passage of contrast in the absence of obstructive epicardial coronary disease. More hypotheses of its mechanism including early phase atherosclerosis, microvessel dysfunction, disproportion between vasoconstrictor and vasodilatory factors, and platelet function disorder were suggested (2).

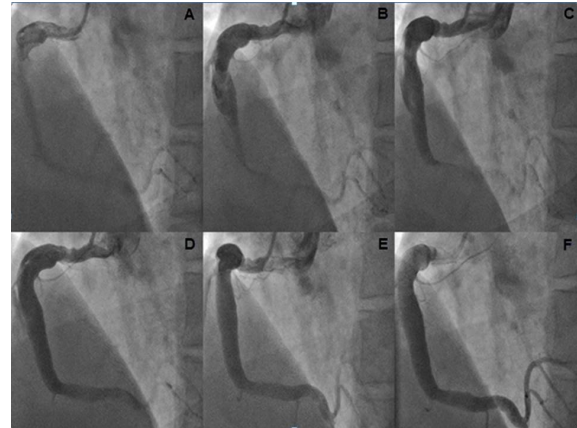


Figure 2 A-F. The right coronary angiogram shows ectasia and slow flow phenomenon.

References

1. Hartnell GG, Parnell BM, Pridie RB. Coronary artery ectasia: its prevalence and clinical significance in 4993 patients. *Br Heart J* 1985; 54: 392-5.
2. Li JJ, Xu B, Li ZC, Qian J, Wei BQ. Is slow coronary flow associated with inflammation? *Med hypotheses* 2006; 66: 504-8.