Late-Onset Post-Infarction Ventricular Septal Defect: Surgical Repair

Miyokart İnfarktüsü Sonrası Geç Dönem Ventriküler Septal Defektin Cerrahi Onarımı

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Post-myocardial infarction (MI) ventricular septal defect (VSD) one of the fatal complications of acute coronary syndrome-is a rare clinical situation (incidence, 1-2%)[(1)]. Post-MI VSD is often presented with total left anterior descending artery (LAD) occlusion; it mostly occurs at anterolateral localization and less often at posterior localization after inferior MI[(2)].

A 55 year old male patient came to the emergency room with chest pain. He was diagnosed with inferior MI and was taken to the angiography laboratory for primary percutaneous coronary intervention (PCI). There was ST elevation at the inferior leads on electrocardiogram. On angiography, LAD and circumflex artery (Cx) were normal-without critical stenotic lesions and distal RCA was totally occluded (Figure 1A,1B,2A). The stenotic lesion was opened with successful PCI and stent implantation (Figure 2B,C). The patient was discharged with cure. The same patient came with the complaints of fatigue and exertional dyspnea 1 month later. On echocardiography, a ventricular septal defect was seen at the anterior portion of the septum near the baseline segment of the heart. On arrival, his blood pressure was 90/60 mmHg and pulse was 100 bpm. He was immediately admitted to the ICU. After stabilization with inotropic support and intraaortic balloon pump, he was urgently taken to the operating room. The operation was performed under general anesthesia and cardiopulmonary bypass. An incision was made on the diaphragmatic surface of the heart through the left ventricle next to the interventricular septum. The interior of the left ventricle was exposed with this incision, and the septal defect on the anterior surface near the baseline of the heart was repaired with a Dacron patch. Being reinforced with Teflon felt, the ventriculotomy incision was closed primarily (Figure 3A,B,C).

Post-MI VSD is often seen as a complication of anterior MI. It is primarily involved with total LAD occlusion and less often with additional Cx and/or right coronary artery (RCA) lesion(s). In this case, the interesting point is that LAD and Cx were completely normal without critical stenotic lesions while the isolated total RCA occlusion was seen. Post-MI VSD can be seen

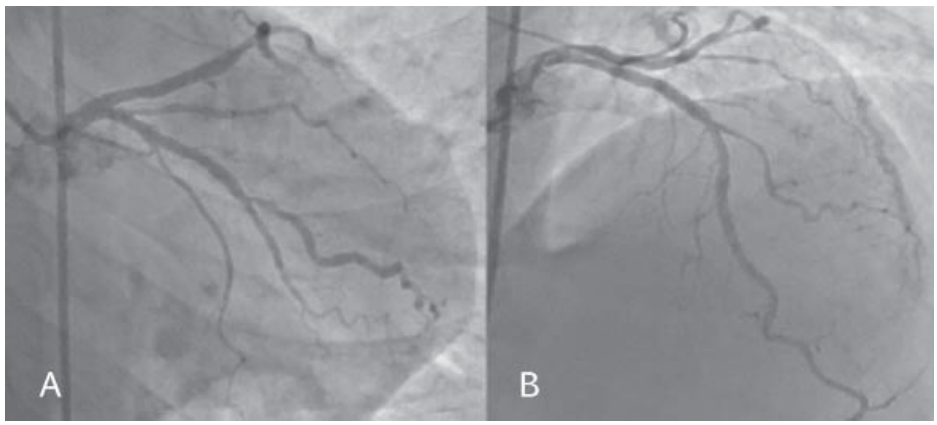

Figure 1. **(A)** Circumflex normal (RAO caudal). **(B)** LAD normal (AP cranial).

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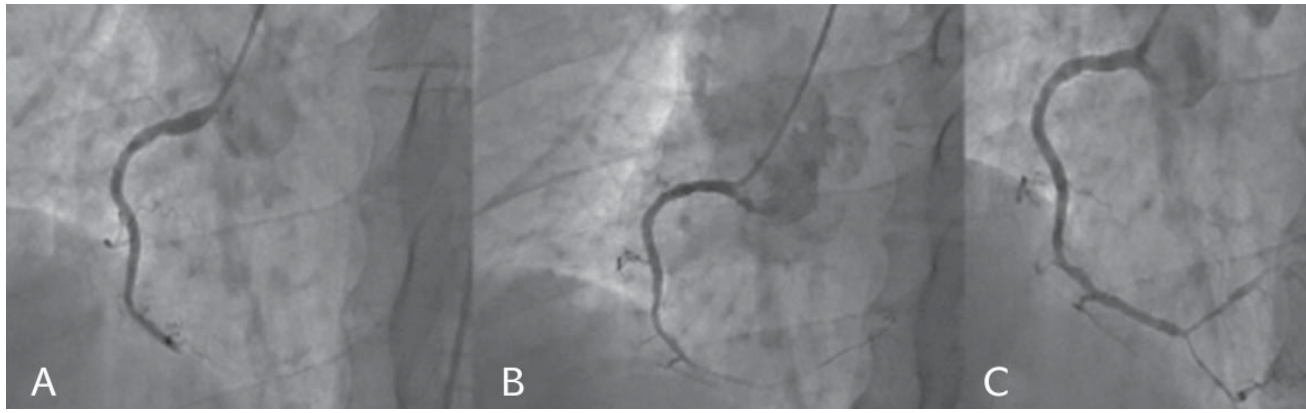

Figure 2. **(A)** Distal RCA occlusion (LAO cranial). **(B)** PCI to distal RCA (LAO cranial). **(C)** Distal RCA opened (LAO cranial).

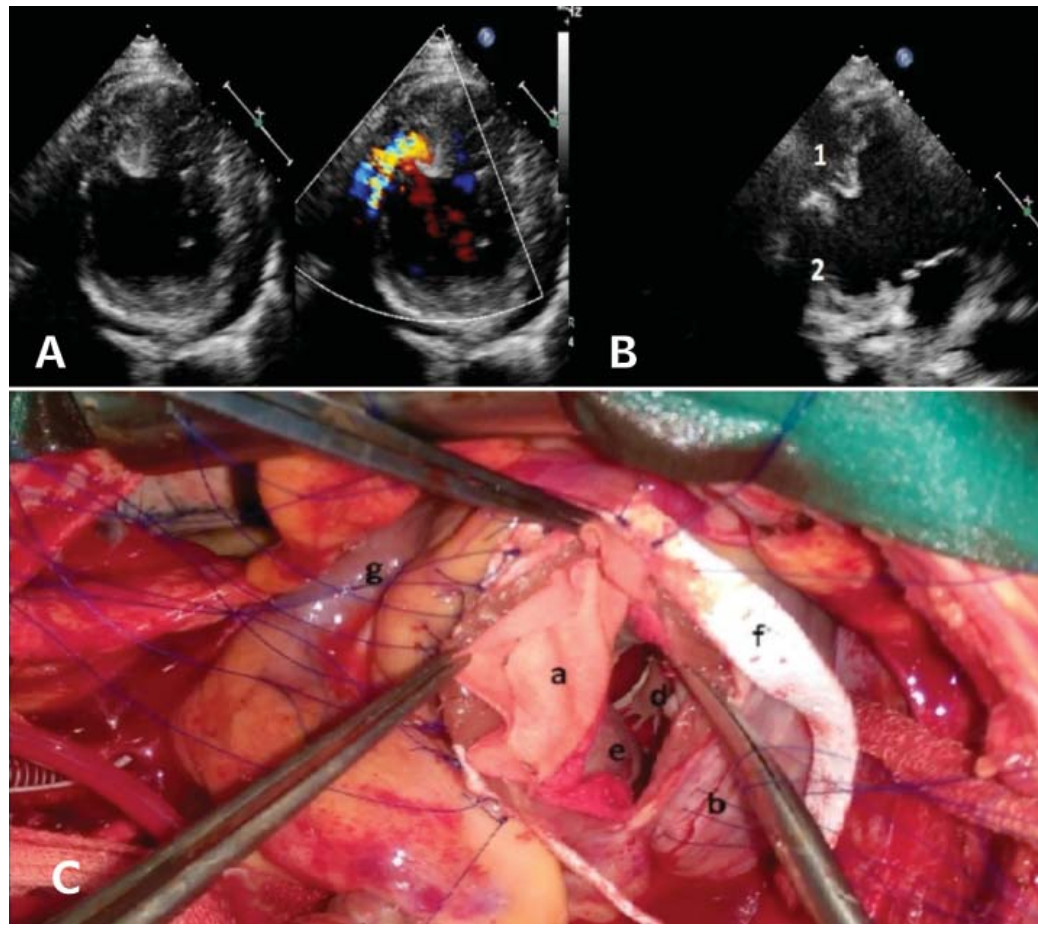

Figure 3. **(A)** Echocardiographic view: 2D and color mode. **(B)** 1: Septal defect, 2: aneurysm. **(C)** Intraoperative view, a: septum repaired with a Dacron patch, b: left ventricle, d: papillary muscle, e: aneurysm, f: Teflon, g: right ventricle.

at any time from the first 24 h to the second week. Thus, it is difficult to predict the exact time of VSD appearance. It might be 1 month after the first visit to the hospital with the diagnosis of inferior MI. Septal rupture-having a high mortality rate-was successfully treated, and the patient was discharged with cure on the tenth postoperative day.

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