

Iatrogenic Coronary Perforation and Right Ventricle Fistula

İyatrojenik Koroner Perforasyon ve Sağ Ventrikül Fistülü

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Received: 25.05.2018
Accepted: 29.06.2018
Available online: 12.07.2018

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Keywords: Complications; fistula

Anahtar Kelimeler: Komplikasyonlar;
fistül

For the video/videos of the article:



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Coronary artery rupture is a post-dissection damage in coronary arterial system. It starts with endothelial dissection then improves to outer layer of vessels and causes blood extravasations. Coronary artery rupture ranges from 0.005% to 0.15% in percutaneous coronary intervention (PCI) procedures. Mortality is nearly 8-10%. Most coronary rupture are caused by wires and are less frequently caused by balloons or stents.^{1,2}

A 62-year-old woman admitted with acute anterior myocardial infarction to an outer hospital. She had no prior history of cardiac disease and coronary risk factor without diabetes mellitus. Primary PCI was performed to left anterior descending coronary artery (LAD) and during the procedure LAD has been perforated. She was referred to our hospital for further management. In physical examination arterial blood pressure was 110/70 mmHg and heart rate was 102 bpm. The presenting electrocardiography revealed sinus rhythm, pathological Q wave and minimal ST elevations in anterior wall. Transthoracic echocardiography revealed minimal pericardial effusion without sings of collapse and other parameters were normally. Medical therapy including angiotensin converting enzyme inhibitory, statine, nitroglycerine, and beta blocker was given. Hemodynamic parameters were stable in secondary day. She underwent cardiac catheterization for control of extravasations. Contrast agent extravasations were seen at four different areas (Video 1, Figure 1) and lesion

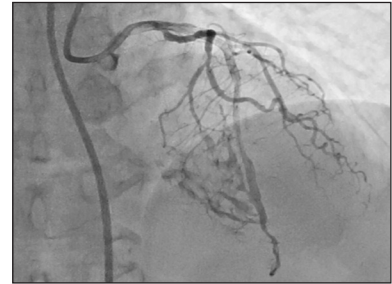


FIGURE 1: Contrast agent extravasations were seen at four different areas.

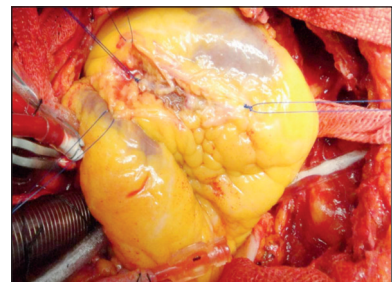


FIGURE 2: After sternotomy, stent striates has been seen in LAD.

detected circumflex and right coronary artery so that the patient referred to department of cardiovascular surgery for coronary artery by-pass graft surgery. After sternotomy, stent striates has been seen in LAD (Figure 2). After ligations of proximal and distal edge of stent, LIMA was used to bypass LAD, and saphenous vein graft was used to bypass first diagonal artery, right coronary artery (RCA), and first obtuse margine artery (OM1). The post-operative recovery was uneventful and patient was discharged at postoperative 7th day.

Source of Finance

During this study, no financial or spiritual support was received neither from any pharmaceutical company that has a direct connection with the research subject, nor from a company that provides or produces medical instruments and materials which may negatively affect the evaluation process of this study.

Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: Ömer Naci Emiroğulları; **Design:** Aydın Tunçay, Abdurrahman Oğuzhan, Ömer Naci Emiroğulları; **Control/Supervision:** Aydın Tunçay, Abdurrahman Oğuzhan, Ömer Naci Emiroğulları; **Data Collection and/or Processing:** Aydın Tunçay, Ömer Naci Emiroğulları; **Analysis and/or Interpretation:** Aydın Tunçay, Ömer Naci Emiroğulları; **Literature Review:** Aydın Tunçay, Ömer Naci Emiroğulları; **Writing the Article:** Abdurrahman Oğuzhan, Ömer Naci Emiroğulları; **Critical Review:** Aydın Tunçay, Abdurrahman Oğuzhan, Ömer Naci Emiroğulları.

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