Iatrogenic Coronary Perforation and Right Ventricule Fistula

İyatrojenik Koroner Perforasyon ve Sağ Ventrikül Fistülü

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.

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 was 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...
detected circumflex and right coronary artery so that the patient refereed 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 postoperative recovery was uneventful and patient was discharged at postoperative 7th day.

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**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.

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**REFERENCES**

