1005 **Successful Detachable Coil- Sealing of Distal Wire Coronary Perforation in a 61 year-old Patient with Acute ST-Elevation Inferior Myocardial Wall Infarction**

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Coronary perforations occur in 0.39% of cases in patients undergoing percutaneous coronary intervention, with distal guidewire (GW) coronary perforation as the most common cause. The first step in the management of distal coronary perforation is balloon tamponade, however, the more definitive option include fat or coil embolization for distal coronary vessel perforations. Here we report a case of a 61-year-old female who presented with inferior wall ST segment elevation. Coronary Angiogram showed a right dominant system with normal left main (LM), which bifurcates into left anterior descending artery (LAD) and left circumflex artery (LCX). LAD has a 70-90% stenosis with 40-60% distal narrowing. dominant right coronary artery (RCA) with 50-70% diffuse narrowing at the proximal to mid segment. There is a 99% stenosis at the distal right posterior atrio-ventricular groove (RPAVG with TIMI 2 flow (culprit lesion). Percutaneous coronary intervention of the culprit vessel was challenging because it was difficult to trace the distal end of the RPAVG. Initial wiring attempt with Runthrough guidewire went into a small side branch and Sion Black was used to wire Right posterolateral (RPL) 2 branch. After several balloon dilatations done using 1.25 mm balloon at the distal RPAVG, TIMI 3 flow was restored with 20% residual stenosis. After withdrawal of Runthrough GW, there was noted distal coronary perforation at the small side branch artery entered earlier. Finecross microcatheter was then advanced into this side branch over Runthrough GW. We performed coil embolization using a detachable 2 x 40 mm Concerto microcoil, which successfully sealed the perforation. Subsequent angiogram showed no more contrast extravasation with TIMI 3 flow in RPL2 with good coil position. Bedside echo showed no pericardial effusion and patient remained stable. In cases of distal wire coronary perforation, early recognition and determination of the site of perforation and use of detachable coil embolization will help achieve hemostasis.