

STENTING OF UNPROTECTED LEFT MAIN BIFURCATION: A CASE REPORT

Introduction: Left main coronary artery (LMCA) disease is an established indication for early revascularization. Although coronary artery bypass surgery is the conventional mode of treatment, percutaneous intervention (PCI) using stenting is emerging as a new modality of treatment.

Case report: A 44 year old, euglycemic, normotensive, non-smoker male presented with a history of inferior wall myocardial infarction three weeks ago, for which he was admitted and treated with thrombolytic therapy at a local hospital. He had a strong first degree family history of coronary artery disease.

Physical examination was unremarkable. X-Ray Chest was normal. ECG showed evidence of inferior wall myocardial infarction. Echocardiography demonstrated hypokinesia of inferior wall with normal LV systolic function. Lipid profile and homocysteine level were normal.

Coronary angiography (Figure 1) revealed 70% stenosis of distal left main coronary artery, with 80- 90% stenosis of Left Circumflex (LCx) ostium and 90% stenosis of the mid LCx. Right coronary artery was free of significant disease. The option of CABG was discussed with the patient and his family, but the patient opted for PTCA with stenting.

Procedure: Inj. Heparin bolus, Inj. Eptifibatide bolus and infusion was used electively. The LMCA was cannulated with 7F JL 3.5 guiding catheter. The LMCA and LCx lesions were crossed with 0.014" Floppy guide wire. The mid LCx lesion was pre-dilated with 2.0 x 15mm balloon and stented by 3.0 x 18mm Driver Stent at 10 atm. LMCA – LCx lesion was stented by 4.0 x 18mm Driver stent at 14 atm. The stent in LMCA – LCx was crossed to enter the LAD with 0.014" Floppy guide wire. The struts at LAD ostium were pre-dilated with 2.0 x 15mm Balloon and the LAD ostium was stented by 3.5 x 12mm Driver Stent at 16 atm. LCx was re-crossed with floppy wire. 3.5 x 12mm balloon was kept in LMCA-LAD, 3.5X10 mm balloon was kept in LMCA-LCx and simultaneous kissing balloon dilatation was performed at 14atm (**Figure 2**). Final angiogram showed no residual stenosis, no thrombus with TIMI III flow (**Figure 3**). The patient was mobilized the next day and discharged on the third day with stable haemodynamics.

Conclusion: This case illustrates the feasibility of PCI for suitable cases of LMCA disease. The main limitation of left main stenting is the higher rate of re-stenosis but the re-stenosis rates are lower in non-diabetics and in large caliber vessels. In patients having vessel caliber of 3.5 mm or less and in diabetic patients, drug eluting stents are preferable. However, since our patient was not diabetic, and the caliber of left main was 4 mm, cobalt chromium stents were used.

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Figure 1 – Pre PTCA

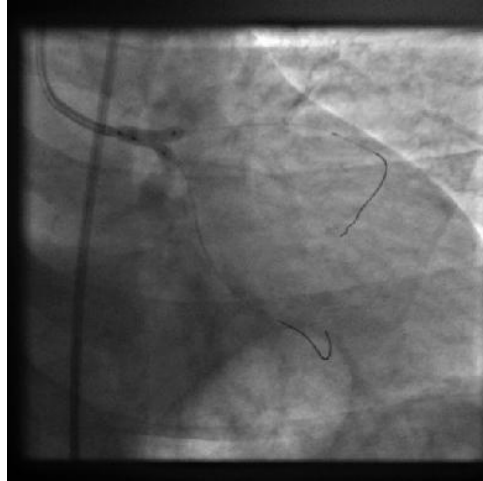


Figure 2– Kissing Balloon

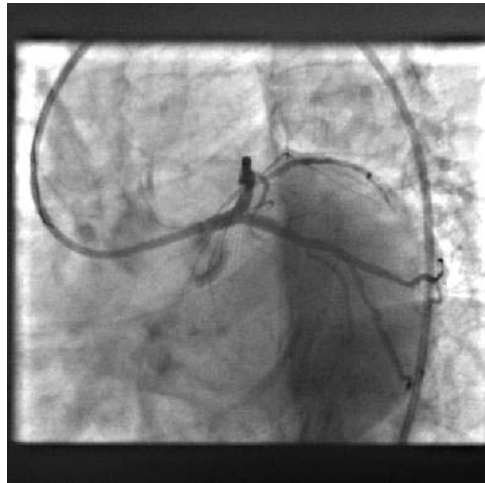


Figure 3 – Final Result