A 53-year-old diabetic, non-smoker male patient presented with Canadian Cardiovascular Society (CCS) class II angina but increase in intensity within couples of weeks. His baseline ECG was normal. No increase of cardiac enzyme. He had an experience of 1 stent implantation at proximal left circumflex in three years before. He was on oral diabetic medication and his Hb1C was 7.1%. He was on single antiplatelet therapy and statin therapy. No history of myocardial infarction. His treadmill test was 3' 04" and positive ischemic respons. But he refused for further management and   asked for medical treatment. Six weeks later, he was back to the hospital because of worsening of his symptoms. Coronary angiography done and revealed the left coronary artery showed critical stenosis at the distal LM. The left anterior descending artery (LAD) and left circum?ex artery (LCX) were nearly equal in vessel size with very critical stenosis in and ostial portions, and the ramus intermedius had a 75-80%% ostial stenosis. There was instent stenosis at the proximal LCX. The trifurcation lesion was classi?ed as a Medina 1,1,1,1 lesion. The proximal first diagonal was having significant stenosis.   The proximal branch of the ramus intermedius was also significant stenosis. The calculated Euroscore and Syntax score were 0,5 and 26, respectively. The patient was willing for PCI.

Intra aortic balloon pump was inserted from the left groin for hemodynamic support. Seven F, 3.5 EBU   guiding catheter (Medtronics) was inserted from the right groin. Rotablator with 1.75 mm burr (Boston Scientific) was performed for debulking to prevent shifting plaque. Three floppy wires were inserted into distal LAD, ramus intermedius and LCX. Special precaution should be done for keep all the wires paralel to avoid tangling. Predilation was done in each vessel using appropriate size of NC balloon. In the LAD and ramus intermedius at the bifurcation lesion (first diagonal at the LAD and the first branch at the ramus intermedius), we used scoring balloon for modification plaque to keep the branches open. A 3x18 mm DES was inserted at the proximal LCX and litle protrude into main vessel (MV). Other 3.5x15 mm balloon was ready at the proximal LAD. The stent was deployed and its balloon was pulled it out. The stent was then crushed using 3.5 balloon (complete crush). Recrossing with the fresh wire while the jail wire still at its position as a marker was then done at the proximal strut and followed by first kissing balloon with 3x15 mm and 3.5x15 mm at the LM-LCX and LM LAD respectively. Two DES (2.5x 18 mm and 3.0x18 mm at the distal and proximal respectively) overlapped was inserted at the ramus intermedius. The proximal DES was litle bit protrude at the MV. The complete crush and first kissing balloon was repeatedly done at the ramus intermedius. Then 3,5x38 mm DES was inserted from the proximal LM to LAD. The stent was deployed at 12 atm. Proximal optimization technique (POT) was done at the bifurcation of LAD and ramus using 4x12 mm NC balloon (14 atm). The distal marker of the NC balloon should be at the level of carina. POT was also done at the bifurcation of LM-LAD and LM-LCX using 4.5x12 mm NC balloon (14 atm). Recrossing to the strut of the ramus intermedius was done at the mid area, followed by second kissing balloon using 3.0x15 mm and 3.5x15 mm at the ramus intermedius-LAD   and LAD respectively (10 atm). The procedure was repeated at the LCX. Recrossing to the strut to the LCX (at the mid area) was done and the second kissing balloon using 3x15 mm and 4x14 mm at the LCX-LM and LAD-LM. The final result was satisfactory. We do not do triple balloon inflation.

No complication was noted. The IABP was pulled out at the evening and the patient was discharged at the next morning. He was on DAPT, statin therapy and oral antidiabeticum. At the 3 months follow-up, he was went well without any complain. The treadmill test revealed 10 minutes with   no chestpain and   negative ischemic respons.