Modified 4Fr Mother–Child Technique with a Buddy–Wire

The patient was a 68-year-old woman who presented with electrocardiographic abnormality. CAG at baseline disclosed severe stenosis in the mid LAD with calcification and bending. A 6-Fr EBU 3.25 guiding catheter (TAIGA, Medtronic) was engaged into the left coronary artery via the radial artery. After crossing a GW (Runthrough Hypercoat), predilatation was performed with a 2.0-mm balloon. However a 2.25 x 24-mm Promus Element stent (Boston Scientific) could not pass the lesion. We thus attempted a 4-in-6 technique to deliver the stent. Using an anchor balloon technique, but the child catheter could not pass the lesion. We then tried a different stent (Tsunami 2.5 x 20-mm, Terumo), however, failed to cross the lesion. Another child catheter Cokatte (Asahi Intecc, Japan) with better hydrophilic coating was also attempted, but did not work. Finally, buddy wire technique was attempted in combination with 4-in-6 technique. The 2nd guidewire (Runthrough Hypercoat) was inserted into the space between the mother and the child catheters. The Tsunami stent could be easily advanced beyond the lesion and successfully implanted. The 2nd diagonal branch was jailed by the stent, and was associated with filling delay. After recrossed to the 2nd diagonal branch through the stent strut, final kissing balloon dilatation was performed using two 2.0 mm balloons. Final angiography confirmed successful dilation of the LAD. We report the First Case of using the Modified Mother–Child Technique with Buddy–Wire for delivering stent to complex lesion.