

A Case of Effort Angina Due to Neoatherosclerosis in a Double Y-Stent Treated with Rotational Atherectomy

Yusuke Kawachi¹, Mitsutoshi Asano¹, Shinichiro Okata¹, Tsukasa Shimura¹, Manabu Kurabayashi¹

¹Cardiology, Yokohama City Minato Red Cross Hospital, Japan

An 82-year-old woman was referred for treatment of effort angina by her family doctor. She had experienced episodes of chest pain a few months prior. Ten years earlier, she had undergone PCI with Y-stenting at the left main trunk (LMT) bifurcation at another hospital. The Y-stent configuration had developed repeated in-stent restenosis (ISR), resulting in double-layered stents at the LMT, left anterior descending artery (LAD), and left circumflex artery (LCX). Her medical history also included diabetes mellitus and hypertension.

Coronary angiography revealed severe ISR with 90% stenosis at the LCX (#11 ostium) and intermediate stenosis (50%) at the LMT (#5) to LAD (#6). Via a right femoral approach, a JL4.0ST guiding catheter was engaged in the left coronary artery. A SION Blue wire was advanced to the LCX lesion, and another SION wire was advanced to the LAD. Intravascular ultrasound (IVUS) demonstrated severe neoatherosclerosis within the double-layered stent at the LCX #11 ostium.

Although balloon dilatation using a 3.0 × 12 mm Kamui balloon was attempted for the LMT #5, LAD #6, and LCX #11 lesions, significant stenosis remained at the LCX #11 ostium. Therefore, the SION Blue wire was exchanged for a Rota Floppy wire, and rotational atherectomy with a 2.0 mm burr was performed at the LCX #11 lesion 15 times. This was followed by additional balloon dilatation with a 3.5 × 13 mm NSE balloon, resulting in adequate lumen expansion at the LCX #11 ostium.

Finally, drug-coated balloon angioplasty was performed using a 3.0 × 20 mm and a 3.5 × 20 mm Agent DCB for the LMT #5?LCX #11 and LMT #5?LAD #6 segments, respectively, with the kissing balloon technique. The patient has remained free of chest pain for three years since the procedure.