Acute-angle bifurcation between a obtuse marginal branch (OM) which had severe ostial stenosis and the distal LCX.

**Relevant test results prior to catheterization.** Relevant catheterization findings:

**[INTERVENTIONAL MANAGEMENT]**

**Procedural step.** A 6Fr BL3.5 guiding catheter was engaged to the left coronary artery via right radial artery. A Joker guidewire (Japan Lifeline) was advanced to the distal LCX and the tight lesion in the middle LCX was dilated with a 2.0 mm balloon. To access the OM ostium, another Joker guidewire was used together with a Crusade catheter (Kaneka) in a conventional manner. However, the guidewire tip prolapsed into the distal LCX unintendedly. Then we used a reversed guidewire technique combined with a Crusade catheter. A hairpin-bend was formed in a Sion black hydrophilic coated guidewire (Asahi Intecc) at a point 20mm from the distal tip. Although the guidewire tip was easily engaged the intended origin of OM, it was not advanced in the deep branch and it was stacked in the pseudolumen. So we kept the guidewire on the site to modify the angle narrower. We manipulated a Gaia 2nd guidewire (Asahi Intecc) to penetrate the OM ostium to the direction of the Sion black guidewire combined with a Crusade catheter. Finally, it was advanced through the true lumen of distal OM. After the bifurcation was predilated by kissing balloon inflation with a 2.5mm balloon and a 2.75mm balloon, a 2.5/18mm Resolute Integrity stent (Medtronic) was deployed from the middle LCX to the OM. Then, a 2.5/30mm Resolute Integrity stent were deployed successively from the distal LCX with the bifurcated site using culotte stenting technique. Finally kissing balloon inflation with a 2.5mm and a 2.75mm balloons was performed.
Case Summary. Percutaneous coronary intervention (PCI) involves a challenge to negotiate acute-angle bifurcations, and extreme angulations are a predictor of procedural failures and complications. Angle modification using a reversed wire technique is effective for wiring side branch in acute-angle bifurcation lesions.

Relevant clinical history and physical exam. A 72-year-old female had felt recurrence of exertional chest discomfort for recent 2 months, who underwent culotte stenting using sirolimus-eluting stent (Cypher) in the bifurcation between left anterior descending artery (LAD) and 1st diagonal branch (D1) 7 years ago. Her coronary risk factors were hypertension, dyslipidemia, and diabetes mellitus.

Relevant test results prior to catheterization. The myocardial scintigram revealed ischemia in antero-septal area.

Relevant catheterization findings. The coronary angiography demonstrated restenosis in the ostium of the D1 stent (90% stenosis), proximal (75%) and distal edges (75%) of the LAD stent.

Side Branch Restenosis Related to Incomplete Removal of Jailed Struts After Culotte Stenting: Assessment with 3-Dimensional Optical Coherence Tomography

Yoshinobu Murasato,1 Katsuhiko Takenaka,1 Masaaki Nishihara1
1Kyushu Medical Center, Japan

[CLINICAL INFORMATION] Patient initials or identifier number. 662170