

C-02 Successful Bailout Stenting for Iatrogenic Left Main Coronary Artery Dissection During
Complex Percutaneous Coronary Intervention

Haruka Sasajima¹, Takahide Kodama¹, Masanori Shiba²

¹ Department of Cardiology, Toranomon Hospital, Tokyo, Japan, ² Department of
Cardiology, Toranomon Hospital Kajigaya, Tokyo, Japan

[Background] Iatrogenic left main trunk (LMT) dissection is a rare but potentially fatal complication of percutaneous coronary intervention. Deep or noncoaxial guiding-catheter engagement, particularly with pressure damping, may cause or propagate dissection. Early recognition, true-lumen wiring, intravascular imaging, and bailout stenting are essential. [Case presentation] The first case involved a 77-year-old woman with severe stenoses in the left anterior descending artery (LAD), first diagonal branch, and left circumflex artery (LCX). After drug-eluting stent implantation in the LAD and LCX, pressure damping prompted removal of the guiding catheter. Angiography after re-engagement revealed an LMT-LCX dissection. A stent was immediately implanted from the LMT to the LCX, followed by post-dilation and kissing balloon inflation, achieving satisfactory final coronary flow. The second case involved a 67-year-old woman on hemodialysis with in-stent restenosis of the first diagonal branch. During a second pass of excimer laser coronary angioplasty, the guiding catheter became disengaged. After re-engagement, contrast staining was observed in the LMT-LCX, and intravascular ultrasound confirmed dissection. An LCX stent was implanted and crushed by balloon dilation from the LMT to the LAD. Despite difficulty rewiring the LAD, balloon dilation of the stent struts and intravascular ultrasound guidance enabled true-lumen access. Additional LMT-LAD stenting and kissing balloon inflation achieved satisfactory final flow. [Conclusion] Careful monitoring of guiding-catheter position and pressure waveforms is essential for preventing and recognizing LMT dissection. Once dissection is suspected, further forceful contrast injection should be avoided, and true-lumen wiring and bailout stenting under intravascular imaging guidance should be considered.