

1059 **Successful True-Lumen Wiring Using the Tip Detection Method in a Case of Iatrogenic Right Coronary Artery Dissection**

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A 63-year-old woman with a history of hypertension, dyslipidemia, and cerebral infarction was diagnosed with severe aortic stenosis after presenting with exertional dyspnea. Coronary angiography was performed as a part of the preoperative evaluation for surgical aortic valve replacement. During angiography of the right coronary artery, an iatrogenic coronary artery dissection occurred, extending from the ostium to the mid-part of right coronary artery.

After switching to a 7-Fr JR 4.0 guiding catheter, a SION blue guidewire was advanced; however, intravascular ultrasound (IVUS) confirmed that the wire had entered the subintimal space. Using the tip detection method, IVUS and fluoroscopic images were co-registered to identify the location of the true lumen on both imaging modalities. Based on this information, a SION guidewire was successfully advanced into the true lumen.

After evaluating the extent of the coronary dissection by IVUS, two drug-eluting stents (3.0×50 mm and 3.5×48 mm) were implanted from the distal segment. The procedure was completed after confirming that the entire dissected segment, including the coronary ostium, was adequately covered.

Although a mild elevation in cardiac biomarkers was observed after the procedure, the patient developed no chest pain, electrocardiographic changes, or regional wall motion abnormalities on echocardiography.

We report a case of iatrogenic right coronary artery dissection in which successful wiring to true lumen was achieved using the tip detection method. Co-registration of IVUS and fluoroscopic images played an important role in identifying the true lumen and facilitating successful guidewire passage. The technical considerations and clinical utility of this approach are discussed.