Knuckle Wire and Stingray Balloon for Recrossing a Coronary Dissection After Loss of Guidewire Position

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A 73-year-old man presented with a non-ST-segment elevation myocardial infarction. Coronary angiography revealed severe lesions in the mid and proximal right coronary artery (RCA) (Fig. 1A). After pre-dilation, a dissection was noted at the mid RCA lesion (Fig. 1B). During attempts to deliver a 3.0 × 38-mm stent, guide and wire position were lost. Blood flow past the mid RCA...
lesion ceased, and the patient developed chest pain and ST-segment elevations. The dissected segment could not be rewired, despite the use of several guidewires (Fielder XT, Confianza Pro 12, Pilot 200, Abbott Vascular, Santa Clara, California) through a Finecross catheter (Terumo, Somerset, New Jersey) or through a Venture catheter (St. Jude, Minneapolis, Minnesota). We advanced the Pilot 200 guidewire (Abbott Vascular) to form a knuckle (Fig. 1C), which was advanced subintimally through the dissected lesion. A Stingray balloon and wire (Bridgepoint Medical, Minneapolis, Minnesota) were subsequently used to re-enter into the distal true lumen (Fig. 1D), as confirmed angiographically (Fig. 1E). With a Guideliner catheter (Fig. 1F) 3.0 × 38-mm and 3.5 × 23-mm stents were delivered and successfully deployed with an excellent final angiographic result (Fig. 1G). The patient had an uneventful recovery.

Subintimal dissection/re-entry crossing strategies are frequently used to facilitate crossing of chronic total occlusions (1,2). Our report demonstrates that the same techniques can be used to treat acute complications of percutaneous coronary interventions, such as crossing of a dissected coronary segment.

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**REFERENCES**
