

Catheter Technique: A Case Report

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Background:

Managing severe coronary calcification during percutaneous coronary intervention (PCI) often requires rotational atherectomy (RA). However, burr entrapment is a rare but potentially life-threatening complication. We present a case of successful retrieval of a stuck Rotablator burr and subsequent stent implantation without major complications.

Case Presentation:

An 87-year-old man with a history of complete atrioventricular block requiring pacemaker implantation, dyslipidemia, and hypertension presented with exertional chest pain.

Coronary angiography revealed severe calcified stenosis in the left anterior descending artery (LAD, #7) and diagonal branch (Dg, #9). PCI with drug-eluting stent (DES) implantation was planned. Intravascular ultrasound (IVUS) of the Dg demonstrated circumferential, severe calcification. Rotational atherectomy using a 1.5 mm burr was performed. During the second pass, the burr became entrapped and could not be withdrawn.

To resolve this, a double guiding catheter technique was employed. A second guidewire was advanced alongside the stuck burr. A small-diameter balloon was passed over this wire. After cutting the Rotablator drive shaft, a Guideplus EL extension catheter was advanced over the Rotablator shaft. Balloon inflation provided anchoring while gentle traction under Guideplus EL support enabled successful retrieval of the burr. There was no evidence of vessel perforation or dissection. DESs were subsequently deployed in both the Dg and LAD with good angiographic results.

Conclusion:

This case demonstrates that balloon-assisted Guide extension catheter techniques can facilitate safe retrieval of a stuck Rotablator burr, allowing PCI to be completed successfully.