1074 **Successful Recanalization of Right Coronary Artery Chronic Total Occlusion with Giant Aneurysm in a Pediatric Kawasaki Disease Patient: A Case Report**

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Kawasaki disease (KD) is a leading cause of acquired coronary artery aneurysms and chronic total occlusions (CTOs) in children. Revascularization of CTOs in giant aneurysms poses unique challenges due to severe calcification and distorted anatomy.

A 16-year-old female with KD history (diagnosed at age 3) presented with a giant calcified right coronary artery (RCA) aneurysm and CTO. Initial coronary computed tomography angiography (CTA) revealed RCA occlusion with collateral circulation from the left coronary artery. Coronary angiography showed proximal RCA occlusion, giant aneurysm, severe calcification, and distal filling via septal collaterals (J-CTO score: 4).Percutaneous coronary intervention (PCI) was performed using a bilateral approach combining antegrade wire escalation and retrograde techniques via septal collaterals.

PCI Procedure

Access: Bilateral femoral approach (7F AL1.0 guide for RCA; 7F EBU 3.5 for LAD).

Antegrade Attempt: Gaia Third, Conquest Pro 8-20 wires failed to cross calcified occlusion despite Corsair microcatheter support.

Retrograde Approach:

Sion wire advanced through S2 septal collateral to posterior descending artery (PDA).

Balloon angioplasty facilitated Corsair microcatheter delivery.

Knuckle technique with Pilot 200 achieved retrograde crossing into RCA mid-segment.

Reverse CART:

Antegrade Gaia Second and retrograde Pilot 200 wires overlapped in occlusion.

Guidezilla extension catheter facilitated retrograde wire externalization (RG3 wire).

IVUS-Guided Therapy:

Pre-dilation with NC balloons (2.5–4.0 mm).

DCB angioplasty (2.5×40 mm to PDA; 4.0×20 mm to RCA).

Result: TIMI 3 flow with <30% residual stenosis, no dissection or perforation.