



## Satisfactory arterial healing after second-generation drug-eluting stent implantation for segmental stenosis in a patient with Kawasaki disease

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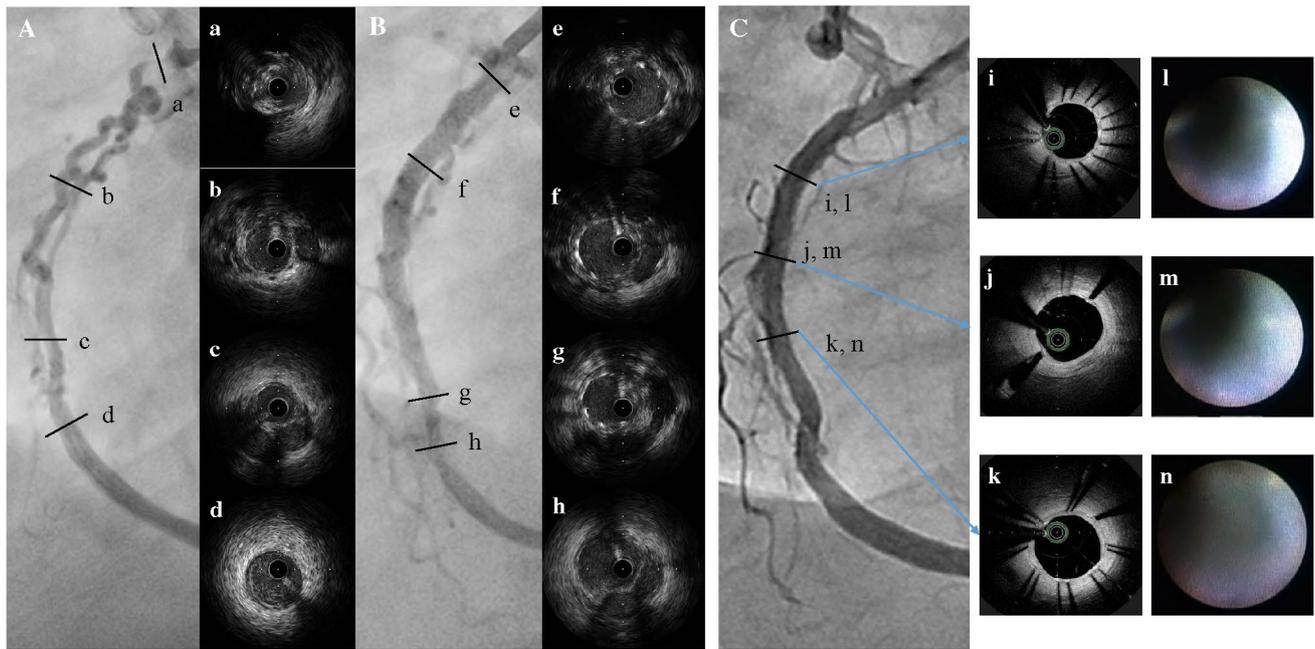
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A 40-year-old male with past history of Kawasaki disease (KD) became sudden cardiac arrest. Emergent coronary angiography (CAG) showed total occlusion of left main trunk (LMT) and segmental stenosis of right coronary artery (RCA), which were recanalized vessels in the occluded coronary aneurysm (Fig. 1A, a–d). After the treatment of LMT lesion, platinum–chromium everolimus-eluting stent (Promus PREMIER<sup>®</sup> 3.0 × 38 mm) was implanted for the RCA lesion to obtain complete revascularization (Fig. 1B, e–h). Follow-up CAG was performed at 12 months (Fig. 1C) with optical frequency domain imaging (OFDI) and coronary angioscopy (CAS). OFDI demonstrated almost all stent struts which were covered with homogeneous and signal-rich neointima (Fig. 1C, i–k). CAS revealed that stent struts were embedded in the white neointima, without evidence of thrombus or yellow plaque (Fig. 1C, l–n).

The previous OFDI study demonstrated homogeneous, signal-rich neointima which suggest sufficient neointimal coverage with smooth muscle cells [1]. The previous CAS studies demonstrated that the absence of thrombus suggests successful arterial healing and the absence of yellow plaque is associated with the low risk of late stent failure [2, 3]. In this case with the cardiovascular sequelae of KD, satisfactory arterial healing was obtained at 12 months after second-generation drug-eluting stent implantation.

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**Fig. 1** Initial, final, and follow-up coronary angiography (CAG) with intravascular images. **A** Initial CAG. *a–d* Frames of intravascular ultrasound (IVUS) in the lesion. IVUS showed the lotus root-like appearance. **B** Final CAG. *e–h* Frames of IVUS in the stented seg-

ment. IVUS showed neither under expansion nor incomplete stent apposition. **C** Follow-up CAG. Follow-up showed no restenosis. *i–k* Frames of optical frequency domain imaging in the stented segment. *l–n* Frames of coronary angioscopy in the stented segment

## References

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