



Obrazy v kardiologii | Images in cardiology

A new lesion in an old stent: A new insight into very late stent thrombosis

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A 76-year-old male presented to hospital with an acute inferior ST elevation myocardial infarction. He had previously undergone percutaneous coronary intervention to his proximal and mid right coronary artery 6 years prior with 2 drug eluting stents (Xience V 3.5 × 15 mm and 2.75 × 15 mm; Abbott Vascular).

Urgent coronary angiogram revealed a thrombotic total occlusion of the proximal RCA, within the previously deployed stent (Fig. 1). Initially manual thrombectomy (Medtronic Export Aspiration System) was performed with restoration of TIMI III flow. Optical coherence tomography (OCT) imaging (St Jude Medical Dragonfly) was per-

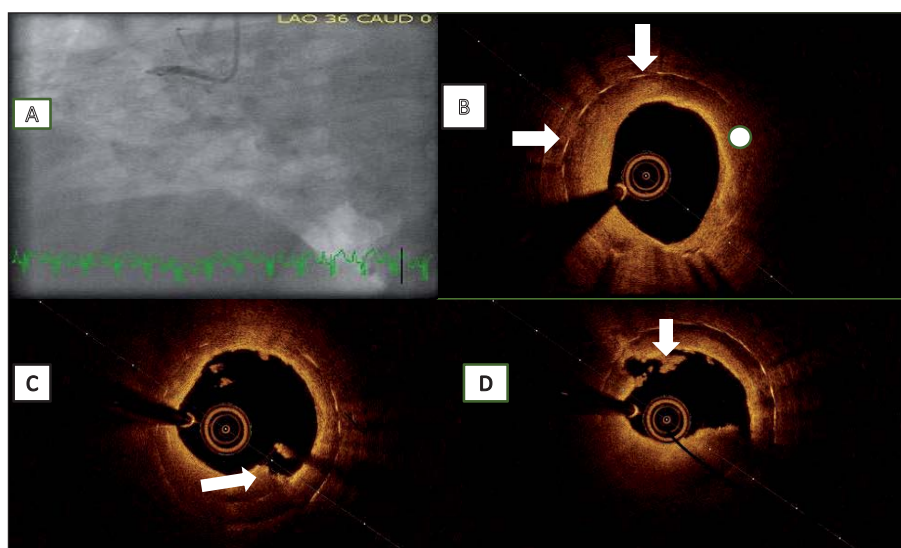


Fig. 1 – (A) Angiogram demonstrating complete occlusion of the RCA. (B) Arrows demonstrating complete covered previous stent and circle demonstrating lipid pool and fibrous cap. (C) Plaque rupture. (D) Intraluminal thrombus.

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formed, demonstrating no malposition of the previous stent, with full covered stent struts. There were areas of plaque ulceration and rupture within the previously stented segment. This was treated with a drug eluting stent (Promus Premier 3.5 × 20 mm; Boston Scientific) with a good final angiographic result.

Previous human autopsy and retrospective observational data report that there is no significant difference in the frequency of atherosclerosis between first and second generation drug eluting stent (DES) [1,2]. However, the incidence of neo-atherosclerosis causing very late stent thrombosis in second generation DES is unknown. This case highlights the role of OCT in diagnosing in-stent neo-atherosclerosis as an emerging substrate for both in-

-stent restenosis and late stent thrombosis [3], especially with second generation DES.

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