Three aneurysms developed in three different drug-eluting stents

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A 42-year-old man presented with chest angina. He had exertion chest discomfort 1 month ago. He had no cardiovascular risk factors. Chest X-ray revealed no cardiomegaly. Electrocardiogram revealed ST-segment elevation in lead II, III, and aVF. Echocardiography showed hypokinesia in inferior wall with an ejection fraction of 45%. We diagnosed ST-elevation myocardial infarction in inferior wall. We performed a coronary angiography (CAG) for primary percutaneous coronary intervention. The CAG showed a significant stenosis with plaque rupture at bifurcation portion of postero-lateral branch and postero-descending branch of the right coronary artery (RCA), which is considered as infarct-related artery, and a significant stenosis at proximal portion of the left anterior descending artery (LAD) and the left circumflex artery (LCX).

The RCA lesion was pre-dilated and implanted (zotarolimus-eluting stent 3.5 × 24 mm). After 3 days, we implanted two different stents at two significant lesions of LAD and LCX (LAD: sirolimus-eluting stent 3.5 × 23 mm; LCX: paclitaxel-eluting stent 3.5 × 24 mm) because of product delivery (Panels A, B, and C). We treated with aspirin 100 mg/day and clopidogrel 75 mg/day.

Six months later, he was admitted at our hospital due to atypical chest pain. We performed CAG. Follow-up CAG revealed huge aneurysms around the stents in RCA and LCX and small aneurysm around the stent in LAD (Panels D, E, and F). The aneurysms were clearly visible on intravascular ultrasound (Panels G, H, and I). We decided to treat with medication of three anti-platelet agents (aspirin, clopidogrel, and cilostazol) without additional intervention. He has been free of symptom until now.

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