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Images in Cardiology

Plaque rupture in a non-culprit artery detected by optical coherence tomography and treated with plaque capping

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A 52 yrs old male presented with ST elevation anterior wall myocardial infarction with chest pain of 2 h duration. Coronary angiogram showed occluded mid left anterior descending (Fig. 1A & Video 1) artery for which primary PCI was done (Fig. 1B & Video 2) with a bioresorbable vascular scaffold (BVS). Caudal view showed filling defects in the left circumflex (LCX) artery with preserved TIMI III flow (Fig. 1C, D & Video 3). OCT of LCX artery showed a ruptured plaque with significant plaque burden (Fig. 1E). Hence LCX was treated

with another BVS capping the ruptured plaque (Fig. 1F & Video 4).

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Non-significant plaque events leading to acute coronary syndromes (ACS) are more common and multiple plaque ruptures are known to occur during acute coronary syndrome.¹ Early reports on BVS for ACS are promising.² Many of

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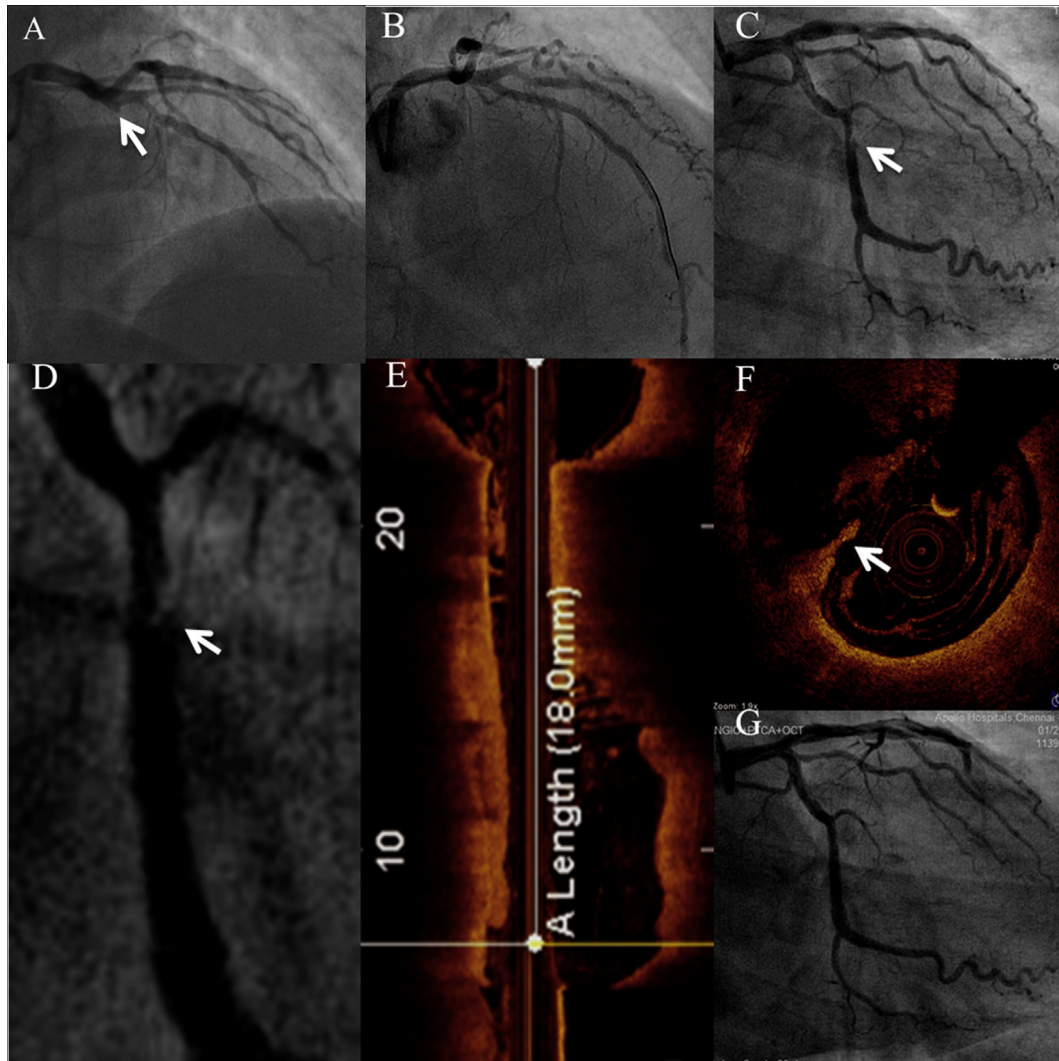


Fig. 1 – A: Coronary angiogram showing occluded mid LAD just after the Diagonal. **B:** CAG after successful PCI with BVS to LAD. **C:** CAG in RAO caudal view showing a intra luminal filling defect in the mid LCX. **D:** Zoomed view of the mid LCX showing a flap like filling defect. **E:** Longitudinal OCT image of the mid LCX aligned parallel to the angiographic picture in D to show the ectasia, narrowing and the eroded plaque with an underlying cavity. **F:** Axial view at the level showing a ruptured flap. **G:** CAG after successful PCI to mid LCX with a BVS.

these unstable plaques gets stabilised with the medications, but in our case, significant plaque burden with a large ruptured cavity predisposing for thrombus formation was noted and hence PCI was done with BVS capping the plaque. Transient scaffolding by capping unstable plaques may heal these lesions, though further studies are needed.

Conflicts of interest

All authors have none to declare.

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