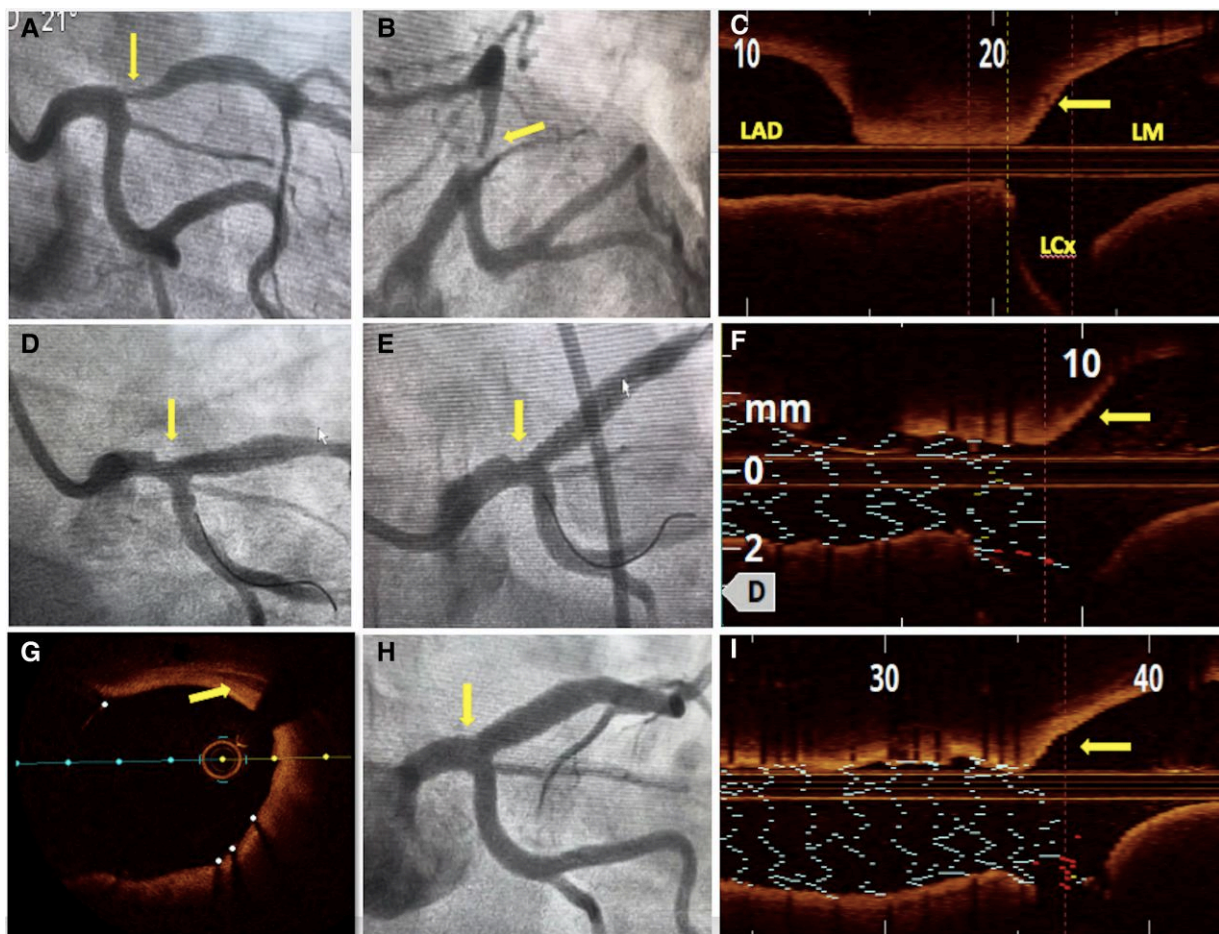


# Left main haematoma in an attempt to nail the left anterior descending ostium in a true 0,1,0 left main bifurcation disease: what next?

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## Case

A 68-year-old female presented to our hospital with complaints of episodes of rest angina. She had non-ST-segment elevation myocardial infarction 7 days ago, which was managed conservatively. Coronary angiogram showed right dominant circulation and single-vessel disease involving the left anterior descending (LAD) artery with 95% ostio-proximal stenosis (*Panels A and B* and [Supplementary material online, Video S1](#)). She was planned for percutaneous coronary intervention (PCI) of the ostial LAD via the right radial route. Pre-PCI optical coherence tomography (OCT) showed a fibrotic lesion with a minimum lumen area of 0.69 mm<sup>2</sup>, which was pre-dilated with a 3.0×12 mm scoring balloon (SB) at 16 atm and a 3.5×18 mm drug-eluting stent (DES) was placed from the ostium to proximal LAD. This stent was post-dilated with a 4×8 mm non-compliant balloon at 16 atm. Angiography revealed a filling defect in the distal left main (LM) artery (*Panels D and E* and [Supplementary material online, Video S2](#)) with thrombolysis in myocardial infarction (TIMI III) flow in LAD and left circumflex (LCx) artery. Optical coherence tomography pullback from LAD to LM was taken and compared with the pullback taken after SB pre-dilatation; it was realized that SB dilatation leads to a large dissection and haematoma (*Panel C*) at the ostio-proximal LAD, which was seen as an intimal disruption and intramural collection of high attenuation blood (see [Supplementary material online, Video S3](#)). This haematoma got shifted to the distal LM (*Panel F*) in an attempt to nail the LAD ostium with DES, causing the filling defect at the distal LM. Detailed

B-mode OCT analysis showed that this LM haematoma was covered by a thick, stable intimal layer with no communication with the lumen (*Panel G*). These OCT findings negated the thought of putting another stent from LM to LAD and she was discharged after 2 days. She remained asymptomatic at 6 months follow-up. Repeat coronary angiography and OCT showed complete resolution of distal LM filling defect and haematoma, respectively (*Panels H and I* and [Supplementary material online, Video S4](#)). This case highlights one of the complications associated with an attempt to nail the LAD ostium and the critical role of imaging in its understanding and management.

## Supplementary material

[Supplementary material](#) is available at *European Heart Journal – Case Reports* online.

**Consent:** The authors confirm that written consent for publication of this case report was obtained from the patient in line with COPE guidance.

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## Data availability

Data available on request.