Intraluminal filling defects after primary PCI in STEMI patient

A 58-year old man was transferred to the emergency room with acute onset chest pain. He had hypertension and there were no other cardiovascular risk factor. At presentation his blood pressure was 100/60mmHg, heart rate was 65bpm. His physical examination results were within normal limits without murmurs, rubs or gallops. The initial electrocardiogram showed ST elevation in leads V1–V3, cardiac enzymes were increased with initial serum CK–MB of 300ng/ml (normal 50ng/ml).

We performed coronary angiography under suspicion of STEMI. Left angiogram showed thrombotic total occlusion on proximal LAD and Right angiogram showed a normal finding. After engaging a 6Fr EBU 3.5 guiding catheter via Rt. transfemoral artery, run through guide wire was crossed in to LAD and predilation (Tazuna balloon 2.5*15mm) on p to mLAD was performed. Follow up angiography showed residual stenosis (>60%) and small multiple filling defect on culprit lesion so intra coronary Glycoprotein IIb/IIIa inhibitor was used considering the possibility of thrombosis. But following angiogram showed no flow phenomenon so Intracoronary nitroglycerine, nicorandil was additionally used and then TIMI I–II anterograde flow was restored. 3.5*29mm Biomine stent was deployed on p to mLAD at 10atm and following angiogram showed diffuse intraluminal filling defect from distal end of the stent to far distal LAD.

To evaluate the etiology of the filling defect in terms of coronary dissection or intracoronary thrombus, IVUS was performed.

IVUS showed good stent apposition and expansion and no intimal dissection flap on distal edge of stent. So we could conclude that the etiology of the intraluminal filling defect is intracoronary thrombus. Final angiogram revealed TIMI II anterograde flow without intraluminal filling defect and we assumed that it might be due to distal migration of thrombi by IVUS catheter insertion and resolved by GP IIb/IIIa inhibitor. Patient had a favorable clinical course and was discharged on aspirin, ticagrelor, beta blocker, and statin.