

1044 A case of acute broad anterior wall myocardial infarction carried by cardiopulmonary arrest

[Target Lesion] proximal LAD100%, highly angulated first diagonal branch

[Strategy] A 60 years old man suddenly lost consciousness during work. By stander CPR was performed immediately, at the time of the arrival of emergency services, ECG showed ventricular fibrillation(VF). VF stopped with DC, IABP was introduced because cardiogenic shock was prolonged.

Glidesheath Slender 6Fr,16cm, was introduced from Rt.TRA. CAG showed LAD segment 6 100%TIMI 0, RCA segment 1 subtotal occlusion, segment 2 CTO supplied by collateral flow from LCX. Based on the ECG and contrast findings, the culprit lesion was LAD.

Launcher 6Fr, EBU3.5 was engaged to the LCA. Guidewire(SION) was easy to cross the lesion. We could confirm TIMI3 flow by performing thrombus aspiration. After pre-dilatation with 2.5mm balloon for proximal LAD, we can see the branch that have a large perfusion area. After cardiopulmonary arrest resuscitation, cardiogenic shock had been prolonged, It was decided to protect branch in order to eliminate ischemia as much as possible. First diagonal branch had large perfusion area with a highly angulated take-off. Reverse wire technique was used after failed conventional antegrade wiring with the support of a double lumen catheter(SASUKE). At first, the wire used in the reverse wire technique selected Fielder FC, but could not pass through the stenosis immediately after the reverse branch. By changing to SION Black, which has better torque performance, it was possible to pass through the stenosis lesion. I changed from SASUKE to microcatheter(FINECROSS GT), but was not able to exceed the D1 ostium. However, with the increase in supportability, I was able to advance SION Black to the D1 distal part. Balloon dilatation with 1.5mm and 2.5mm balloon was performed. After checking IVUS to evaluate the ostium of D1 opening, I put the DES(Resolute Onyx 4.0mm,18mm) to segment 6. There were malapposed struts, post dilatation was performed with 5.0mm balloon. And then D1 was occluded. It was hard to recross through the strut targeting the jailed guide wire using floppy wire, but I was able to cross by changing to ASAHI ULTIMATE bro3 with SASUKE support. Although kissing balloon inflation with 4.0mm balloon for LAD and 2.0mm balloon for D1 was performed, D1 ostium looked narrow. The balloon size for D1 was up to 2.5mm. Finally, LAD and D1 had good dilatation with TIMI 3 flow.

[Final Result] Revascularization for STEMI finished with TIMI 3 flow without side branch occlusion using reverse wire technique. This patient could survive without recurrence of severe arrhythmia.