Navigating Complex PCI-Managing septal perforation

Nandhesh Arumugam

[1]Cardiology Department, Hospital Sultan Idris Shah, Serdang, Malaysia

[Target Lesion] **PCI to LAD** [Strategy] EBU 3.5 7Fr sheath

CGW Sion Blue / Runthrough floppy

Wire Advancement:

Able to wire Sion Blue --> Diagonal

RT Floppy --> Distal LAD

Predilation:

Predilated LAD and diagonal with NC 2.0x15mm at 12 atm

Predilated diagonal with NC 2.5x15mm at 12 atm

Drug-Eluting Balloon:

Restore DEB 2.5x15mm at diagonal at 6 atm for 1 min

Unable to pass through IVUS catheter to LAD

Rotablation:

Decided to rotablate 1.5 burr at proximal part of LAD

* Rota wire exchanged via trapping balloon

Rotablation --> multiple runs at 150K

Complication:

Noted distal branch perforation

(possible from rota wire)

Embolization:

Finecross MG brought to distal septal perforation

Fat embolization to distal perforation site done

* Fat collected from groin area

* noted minimal residual perforation

Balloon Tamponade:

Balloon Tamponade 2.0x15mm at distal LAD for 5 min

* no residual stain/ no perforation

Intervascular Ultrasound (IVUS):

IVUS done for sizing

midLAD --> 3.0 mm

pLAD --> 4.0 mm

* 360° calcification at pLAD

Shockwave Therapy (IVL):

Decided for shockwave (IVL) 3.0x12mm balloon

--> multiple balloon inflation up to 10 atm

Further Predilation:

Predilated LAD with NC 3.0x12mm then 3.5x22mm

Drug-Eluting Stents (DES):

DES Xience Sierra 3.0x38mm at mLAD at 14 atm

DES Xience Sierra 3.5x33mm at 12 atm at pLAD (overlap)

Postdilation with NC:

- 3.0x22mm
- 3.5x18mm
- 4.0x15mm

Final Evaluation:

IVUS done - Slight undersize around calcification

Postdilated with NC 3.0x15mm at 30 atm

Final shot

Good flow

TIMI 3, no dissection