1015 Bail-out from perforation at popliteal artery in CLI with severe calcification

[Target Lesion]

CTO lesion in left POP-ATA distal.

[Strategy]

The case was 60's year-old male with hemodialysis with skin ulcers at dorsum of foot. Angiography showed long CTO lesion in left POP-ATA distal with severe calcification.

- 1. Set up retrograde system (microcatheter) with distal puncture at ATA.
- 2. Set up ipsilateral system via left CFA artery(6Fr).
- 3. Retrograde wiring with knuckle wire technique with polymer jacket wire.
- 4. Antegrade wiring with hard-stiff CTO wire by IVUS guidance technique.
- 5. rCART
- 6. POBA alone or stenting, if necessary.

[Final Result]

1. success

2. success

3. Retrograde wiring (Jupiter FC, Vassallo floppy, Cruise, XT-PV) was successfully navigated but micro catheter (Ichibanyari PAD2) was difficult to pass CTO due to severe calcification. After ballooning with OTW (RYUJIN 1.2/10) retrogradely, micro catheter (Corsair Armet) could get into CTO.

4. Antegrade wiring with hard-stiff wire (Naveed 15, 30, 50, JupiterMAX, Jupiter tapers 45, Vassallo G40) and CROSSER was difficult to navigate true lumen due to calcification with parallel wire technique or IVUS guided technique.

5. Retrograde knuckle wiring with Command only progressed, and succeeded to rCART and externalization. However antegrade IVUS showed that externalized wire exist outside vessel in POP. Stentgraft (Viabarhn) could diminish the chance of revascularization of PTA or Peroneal artery. So I decided to re-wiring.

a) After another wire was navigated from retrogradely with DLC (Crusade PAD), retrograde rewiring with hardstiff wire was succeeded navigated into intra-vessel with antegrade IVUS guidance on externalized wire.

b) antegrade rewiring was also succeeded to navigated intra-vessel.

c) antegrade wire passed CTO with kissing wire technique

6. Short stent was implanted into POP (LIFESTENT SOLO6.0/40) and ATA (PALMAZ GENESIS4.0/18) lesion due to severe recoil with calcification.

7. One straight line was created.