Reconstruct Occluded Left Iliac Artery with Fragile Vessels in Takayasu’s Disease

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Faculty Disclosure
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• For the 12 months preceding this CME activity, I or my spouse/partner disclose the following types of financial relationships:

• Honoraria received from: None
• Consulted for: None
• Held common stock in: None
• Research, clinical trial, or drug study funds received from: None
Case Presentation

• 52 years old female with past medical history of Takayasu's arteritis, left subclavian occlusion who presents with both legs pain with chronic non-healing ulcer on left foot for a month.

Physical examination:
V/S BP 137/60 mmHg, HR 88 per min, RR 18 per min
Left leg: Loss of hair, unable to palpate dorsalis pedis pulse but Dopplerable, 3x3 cm black eschar below left knee, purplish toes
Right leg: dopplerable pulse on DP and PT, mild pitting edema
Initial Evaluation

- Arterial Doppler
  - Monophasic waveforms are seen throughout the lower extremities. There is no evidence of a focal stenosis
  - Suggestive of severe aorto-iliac disease

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Left groin access: Wire went into dissected plane

Video 1 Left groin access
Right Brachial access

- 6 Fr vascular sheath >> 6F 90 cm sheath
- Pigtail advance for angiogram
- V18 carefully advanced to left common femoral artery with the help of QuickCross catheter
Tunneling

- We tunnelled the V18 wire into left common femoral sheath and exit out (Externalized the wire).
- Wire was flossed.
Diagnostic Angiography

Video 2 Diagnostic angiogram: Occluded left CIA

Severe right common iliac disease
Balloon angioplasty

3x120mm Ultraverse balloon and multiple balloon angioplasty was performed
A 7x100 mm Gore Viabahn covered stent and deployed distal left CIA and EIA and 7x38 mm ICast stents deployed at proximal left CIA due to residual proximal lesion.
7x22 mm Icast was deployed at residual ostial to proximal residual lesion >> multiple 7x 120 mm Ultraverse balloon angioplasty.

The stent deployed at proximal LCIA

Angiography post-stent deployed
Redirect V18 wire to right FA
• 7x100 mm LifeStent was advanced into target lesion at right CIA and EIA
• 7x80 mm EverCross balloon was advanced over the wire into the right iliac stent for post-stent dilatation
Final result

Video 4 Angiography post-intervention
Summary

• Balloon angioplasty of left common iliac artery and left external iliac artery with 3.0x120 mm Ultraverse balloon

• Percutaneous intervention of left common iliac and external iliac arteries with deployment of 7x22 mm ICast, 7x38 mm ICast and 7x100 mm Viabahn covered stents with excellent result

• Percutaneous intervention of right common iliac and external iliac arteries with deployment of 7x100 mm Stent followed by post-stent deployment balloon dilatation using 7x80 mm EverCross balloon with excellent result
Special technique used:

- Brachial access
- Tunnelling the wire
- Externalizing the wire
- Flossing the wire
- Covered stent placement
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