What Proportions of Aorto-Iliac Lesions Require Open Treatment? Tips and Trick for Treating Endo

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Disclosures

- None

What Proportions of Aorto-Iliac Lesions Require Open Treatment

Very few……
Majority of Cases can be Done Endo

Crossing Total Occlusion (CTO)

- With recent advances in Endovascular interventions, a wide array of new approaches has been developed in an attempt to improve arterial perfusion to lower extremity without the traditional arterial bypass surgery.

- Improvement in Techniques, use of various CTO devices, and Covered stents have improved results of CTO interventions.

- CTO is much more common in SFA than Iliac artery
Aortic & Iliac Occlusion

Endovascular Intervention

Subintimal Angioplasty/CTO

- Permits creation of Dissection plane + Re-entry without reducing future bypass options
- Successful Case without complications and morbidity (Perforation)

Iliac Occlusion

Endovascular Intervention

PTA & STENT

Wires & Catheters
Intraluminal Crossing Devices

- TruePath™ CTO Device
- Primatique™ SP CTO Catheter
- CROSSER™ Catheter
- Wildcat™ Catheter
- Viance™ Crossing Catheter

Re-Entry Devices

- OffRoad™ Re-Entry Catheter
- Outback™ Catheter
- Pioneer™ LTD Catheter
- Enteer™ Catheter

Re-Entry Devices

Utilize needle/wire to re-enter true lumen and facilitate guidewire placement distal to occlusion

Catheter and Wire

- 0.035 Angle hydrophilic Wire
- CTO of iliac, SFA, Pop
The catheter's blunt tip engages the lesion to penetrate the proximal cap of the CTO. The tip is actuated and delivers enough force to displace plaque, while minimizing the risk of vessel perforation. Repeated application of controlled blunt microdissection enables further device advancement until it reaches the distal end of the occlusion. Micro-channel creation enables guidewire access for percutaneous intervention.
Severe claudication R Lower Extremity

- 52 yr old male with one block R thigh/calf pain
- Works as a truck driver
- No diabetes, + HTN
- Smoker
- Absent Right femoral and pedal pulse, normal pulse on the Left side
- ABI drops to .30 after exercise on the right side
**Right External Iliac CTO**

- Angle hydrophilic wire
- 4 Fr. sheath

**Advancing wire under Roadmap and magnification**

- Both catheters seem to be touching
- Unable to gain access from above or below to true lumen

**Must Mag Up**

- 0.014 wire
- 6 Fr. sheath
- Outback LTD

**Cannula in the subintimal space**

- Wire not advancing
Iliac CTO: Outback LTD

OUTBACK was advanced 0.5 cm before extending The Cannula

.I014 wire is passed into iliac artery

End hole catheter used to exchange for a bigger wire

Angioplasty

Stenting

Completion Arteriogram
**Right Iliac Occlusion**

- 60 yr old male with severe claudication right leg
- PMH: HTN, Cholesterol, NIDDM
- Social: Smoker
- PE: absent R femoral pulse and pedal pulse
- PVR: Right ABI .35 after exercise
- Duplex: R external iliac occlusion
- Patient refused bypass surgery

*Images of vascular imaging showing occlusion and treatment.*

- Selective Right iliac arteriogram showing occlusion from origin of Ex. iliac down to CFA.
- Aortogram showing Right External iliac occlusion.
- Patent bilateral Superficial femoral artery.
- 6 Fr. sheath placed at distal Right common iliac with Micro Guide at the level of the Occlusion.
- The FRONTRUNNER is advanced with the actuating tip closed.
- The Micro Guide is advanced as well.
The tip of the FRONTRUNNER is advanced toward the Reconstitution point. The Common Femoral Artery Micro Guide is kept close for support. Gentle manipulation of the FRONTRUNNER Tip allows passage into the true lumen of the patent common femoral artery. Micro Guide is advanced over the FR Angiogram thru the Micro Guide catheter. At the distal common iliac artery.
Angioplasty of the occluded segment

Stenting of the occluded segment

Post stent Angioplasty

Completion Arteriogram

Iliac CTO Complicated by Severe Dissection
- 59 yr old female with ulcer in the left foot
- Obese, Absent left femoral pulse and pedal pulse
- Duplex shows occluded Left iliac with patent SFA

Right CFA Access: Complete Aortogram and Runoff

Left CFA Access, Wire Easily passed
Subintimal Toward the Left Common Iliac Stump
.035 Wire in the Aorta but Not in True Lumen, Dissection of Aortic Bifurcation

Catheter/Wire Pulled back, Can Not Redirect secondary to Extensive Dissection

Options: Surgery or Gain Access to True Lumen using a Re-entry Device (already Crossed the Lesion)

- Pass a non-hydrophilic .014 wire
- Magnify the field
- Place the Outback thru the 6 Fr. Sheath
- Do Agam thru the right sided catheter

Pushed up the Outback by 3-4 mm

Turn to “L” View, Pull back .014 wire

Deploy the Needle and Advance the Wire into the “True Lumen”
Exchange from .014 to .035 using End Hole Catheter, Inject dye to Confirm

Enter at the Iliac Stump, NOT at Level of Aorta

PTA & STENT

Completion Arteriogram

Iliac & Aorto-iliac Occlusion
- Most Ipsilateral approach:
  1) Common Iliac
  2) Proximal Ext. Iliac
- Contralateral approach:
  Mid & distal Ext. iliac

Distal Aorta and B/L Iliac Occlusion (CTO)
Right Iliac Stump

R iliac stump

R iliac CTO

Catheter in Native aorta

L iliac CTO

L iliac stump

Advance wire & catheter

Aorto-iliac CTO

Catheter in Native aorta

Aorto-iliac CTO

Stent

Post dilatation

Completion Arteriogram