Lower Extremity Revascularization: Lessons Learned From Dialysis Access Thrombectomy

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Disclosure

Speaker name:

………………………Mark C Goldberg MD……………………………

I have the following potential conflicts of interest to report:

☐ Consulting
☐ Employment in industry
☐ Stockholder of a healthcare company
☐ Owner of a healthcare company
☐ Other(s)

☒ I do not have any potential conflict of interest
Lessons Learned From Dialysis Access Thrombectomy

- **Blind** procedure - often don’t know patient or geometry of access/anatomy
- Sometimes **blind angioplasty** to find stenosis and crack lesion before thrombectomy
- Frequently system will thrombosis **repeatedly** during procedure and you unsure why
- Must be **creative** and **change up order** and repeat steps
- **BE CREATIVE AND SUCEED!**
- Must succeed - avoid central venous catheters
- I have used these lessons for acute lower extremity ischemia
Patient Presentation

- 62 y/o male
- COPD, 120 pack Years, now smokes cigars
- Claudication > 5 years
- Rest pain left foot 3 weeks; worse last 4-5 days
- Percocets to control pain
Patient Presentation

- Normal radial and femoral pulse
- Weak right DP; no left DP/PT
- Motor intact left foot; sensation left foot decreased
- ABI R .27; Left 1.23
Day 1

- Left Groin
- Thigh
- Knee
- Above Ankle
- Foot
• Contralateral right fem access
• KMP engaged at SFA origin pointed away from profunda
• Stiff exchange length Glidewire advanced into SFA
• Middle thigh injection into left SFA
• Thrombus SFA/Pop
- Blindly advance 0.14 wire and low profile catheter into PT
- Partial patent but occluded distally
• Abbott Command 0.14 wire advanced into foot
• No flow
• Larger catheters could not be advanced into SFA or beyond pop
• Resistance for 5fr catheter advancement into Popliteal
• **Blind** angioplasty of left SFA “crack lesion” — lesson learned
• Catheter advanced into Pop
• Lysis over night from origin of PT across Pop and SFA
Day 2

Injection Fem Level - No flow distally

Injection Pop Level - Thrombus in distal runoff with PT origin pro and mid level occlusion but distal PT patent
Sheath advanced into SFA - now no flow in pop despite heparin
Sheath pulled back into common fem - PTA SFA with protection of profunda
S/P SFA PTA - No flow pop or distal
Micro-cath advanced into PT; flow but some residual thrombus
Angiojet
6 mg TPA power pulse
Restored flow into foot
AT/DP partially patent
Note thrombus or plaque in Pop
and origin of PT
? Chronic occlusion - no branches
Wire access across arch into PT from the AT
Angiojet
4 mg TPA
NTG
End Day 2

- Lysis wire and infusion cath
- Infuse TPA overnight
Day 3

- Thrombus pop
- ? Dissection
• PT patent
• **Repeat** steps
•** Angiojet
• **TPA**
• Pop partial rethrombosis
• Full heparin bolus > 10,000 units
• Repeated Angiojet
• Repeat PTA
 SFA/Pop
• PTA 6 mm DEB - overinflated to prep over 6.5 mm
• Partly blind deployment of Supera stent 6.5 mm and stack across Pop and overlap into distal segment of the SFA
• S/P Supera
• Thrombus or plaque in origin PT
• PT “jailed” by stent
• Great flow PT
• No flow in DP
• High resistance flow with no branches AT
• Sheath in CFA
• Note origin of SFA
• DEB 6 mm PTA proximal and mid SFA
• 7 mm self-expanding stent and mid SFA bridging Supera
• Full Metal Jacket
• Treat PT with balloon expandable 4 mm stent to open struts of Supera
- PTA 3.5 mm AT
• Palpable PT and DP

Before

After
Lesson Learned

• Change up order of procedure
• Blind PTA
• Repeat steps
• Start with success as the only option
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