When and How to Use Distal Embolic Protection During Lower Extremity Interventions

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Background
- There is ~ little good data regarding the use of EPD devices during LE intervention
- Few devices are FDA “on label” for LE PVI
- Complex interventions have ↑ embol. risk
- Major distal embolization consequences:
  - ALI; compartment syndrome; neuropathy
  - Markedly prolonged procedure times
  - May be difficult to fix after they occur
  - EPD use adds 5 minutes to case; distal embolization adds MUCH more

When Do I Consider dEPD Use?
- When lesions have a high embolic risk
  - Heavy CA++, thrombus, ISR, long/bulky dz.
- When the intervention has ↑ embol. risk
  - Atherectomy, ISR PVI, ALI with thrombus
- When BTK anatomy @ ↑ risk/ vulnerability
  - 1 vessel runoff, severe BTK disease
- If yes to any of the above, I have a low threshold for placing dEPD up front

How to Use dEPD During LE PVI...
- Always use exchange length EPD wires
- Consider wiring lesions with steerable wire, XC to EPD wire
- Can do needed BTK intervention over EPD wire, then place EPD for SFA PVI
- Ideally, want EPD device to have an independent wire, ability to use proprietary wires, short device, good EPD apposition

Lower Extremity EPD Caveats
- I prefer NAV 6* -independent wire, size,etc
- Larger device for pop & above
- Can use smaller device in tibials if needed
- Can use 0.017 tip CSI wire w/ NAV6*
- Will often see “full basket”- aspirate, consider 2nd 0.014 wire into EPD and aspiration catheter into basket
- Be careful w/ wire, & device/EPD interaction

* = “Off label use”

Disclosures
- Symposium Honoraria and Course Proctor
  - Abbott, Medtronic, TriVascular
- Symposium Honoraria
  - Spectranetics, Cordis, Bard, Cardiovascular Research Foundation, Boston Scientific
- National PI
  - CANOPY, SAPHIRE WW
- Stock, Research Grants, etc.
  - None

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ALK- Covered stents down  Nav 6 @ Trifurcation*

"FULL Basket!"

After Export in EPD; basket retrieval...

CLI; Note: foot vascular supply

Heavy CA++; PT most important BTK vessel

XC 0.014 Command  0.018 Quick Cross
Shuttle Sheath in mid popliteal
Primarily wired w/ XC Command 0.014; XC for Viper 0.017 tip wire

CSI crown with distal EPD in PT

Focal force balloon

EPD with Long CA++ SFA and BTK Disease
“Off label” dEPD

Distal Supera on roadmap
High mag, slow deployment
CONCLUSIONS

- Distal embolic protection devices should be considered for femoro-popliteal interventions where the lesion or procedure has an increased embolic risk, or if there is BTK anatomy at risk for embolic events.
- Judicious up front EPD use utilizing a modified approach is easy, safe, and effective for complex LE interventions.

Thank You for Your Attention!