

# When Antegrade Fails: Retrograde Crossing Strategies for SFA CTOs

*Arthur C. Lee, MD*

*The Cardiac & Vascular Institute*

*Director of Peripheral Intervention*

*Gainesville, Florida*

# Disclosure Statement of Financial Interest

*Within the past 12 months, I or my spouse/partner have had a financial interest/arrangement or affiliation with the organization(s) listed below.*

## **Affiliation/Financial Relationship**

- Grant/Research Support
- Consulting Fees/Honoraria
- Major Stock Shareholder/Equity
- Royalty Income
- Ownership/Founder
- Intellectual Property Rights
- Other Financial Benefit

## **Company**

- n/a
- BD, CSI, Cook Medical
- n/a
- n/a
- n/a
- n/a
- n/a

*All TCT 2018 faculty disclosures are listed online and on the App.*

# Retrograde crossing

- **Most, if not all the same techniques for antegrade crossing can be attempted retrograde**
  - True lumen
  - Subintimal
  - Reentry
- **Retrograde wire creates additional options for advanced crossing techniques**

# CTO

*Wire Based*      *Crossing Device Based*

## *Ante/Retro Crossing Techniqu*

*TL/Subintimal*      *True Lumen/Sl*

*Wire Based/Crossing Device*

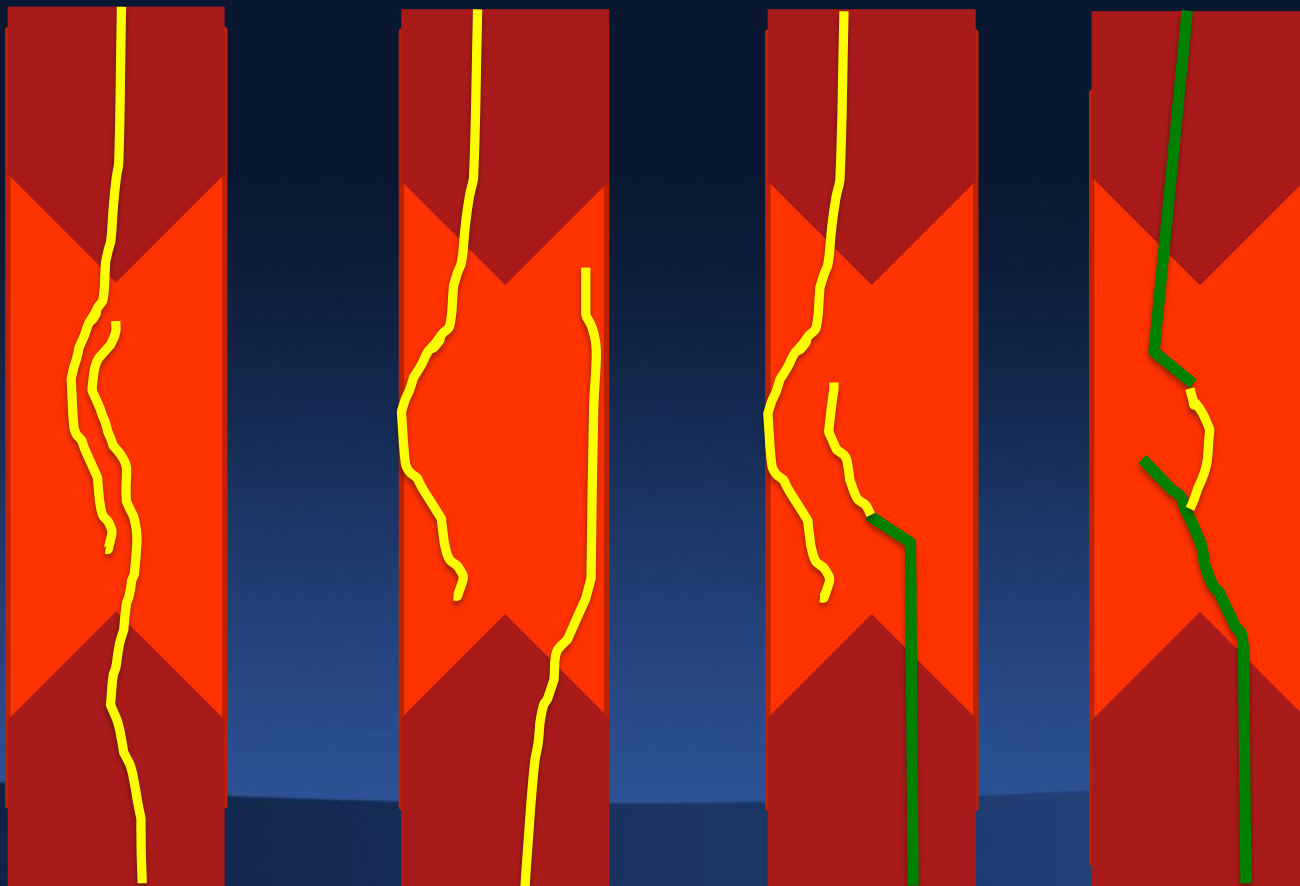
*Distal Cap*

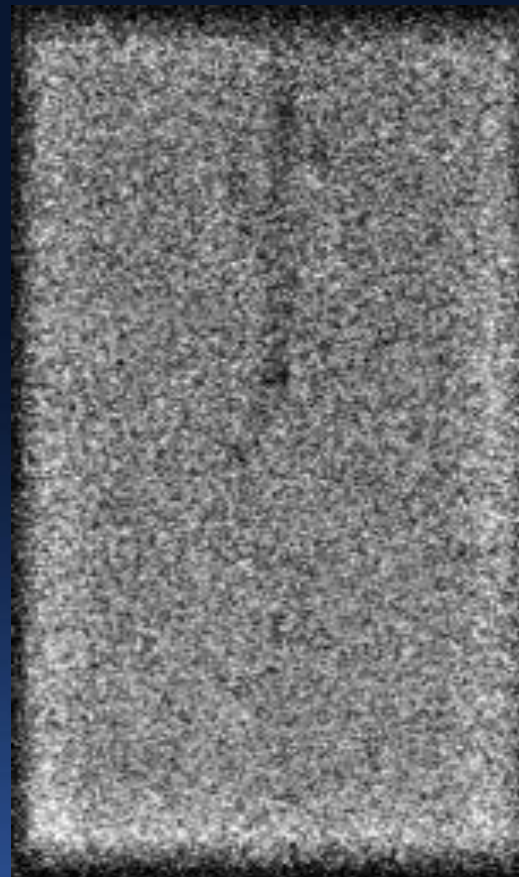
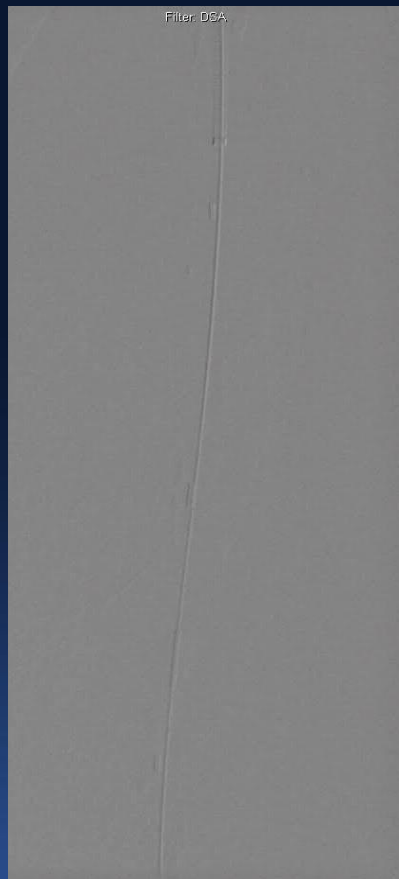
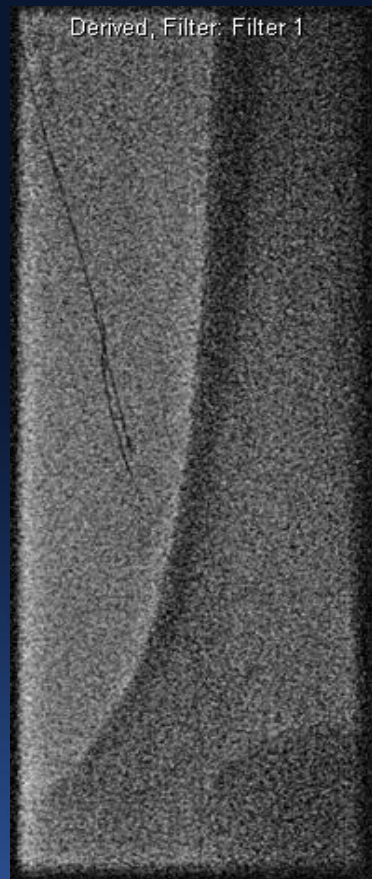
*Retrograde Access*

*Unsuccessful*

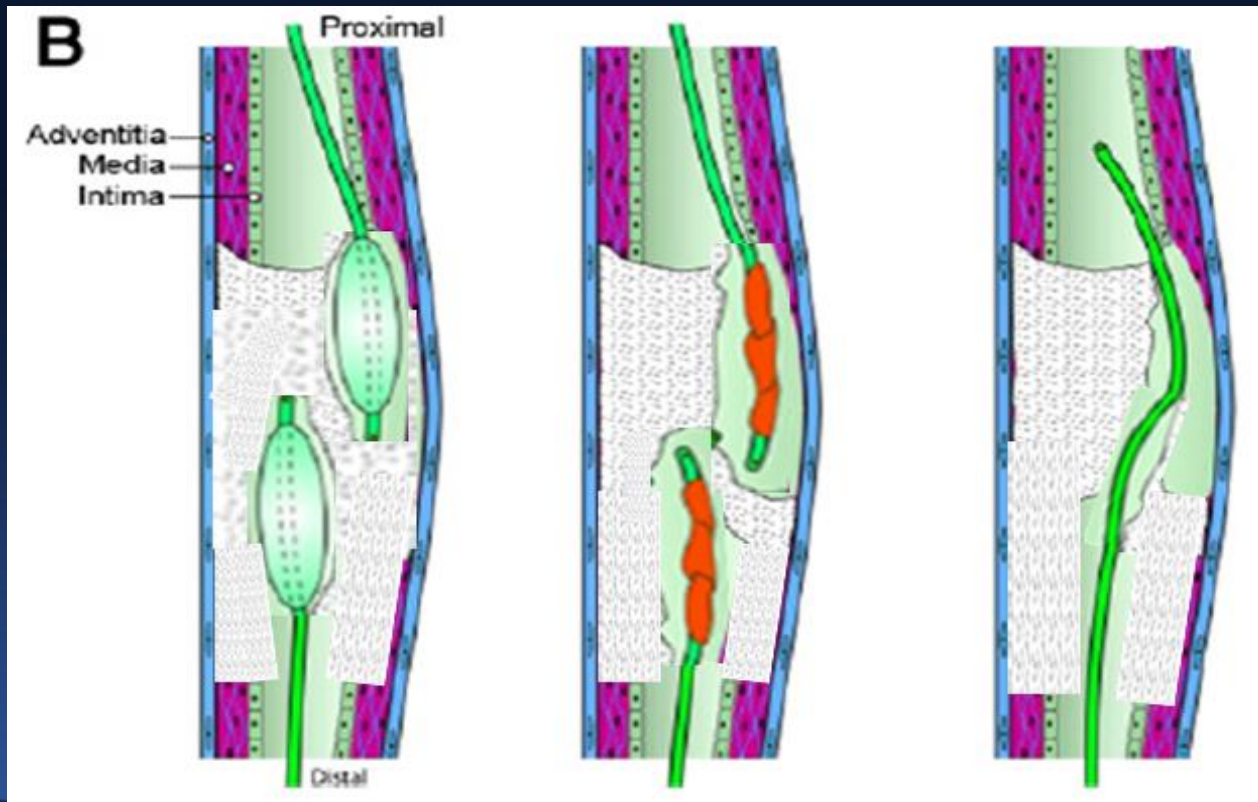
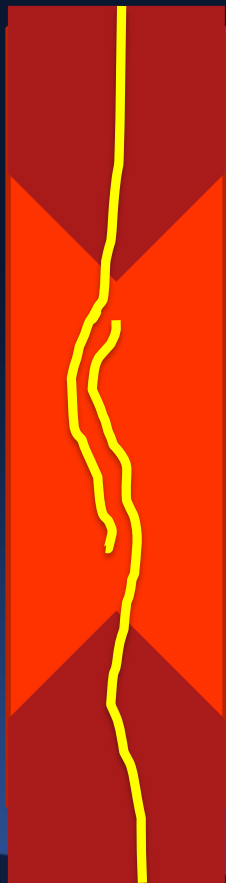
*Re-Entry Device*

# Ante/Retrograde Approach to CTO



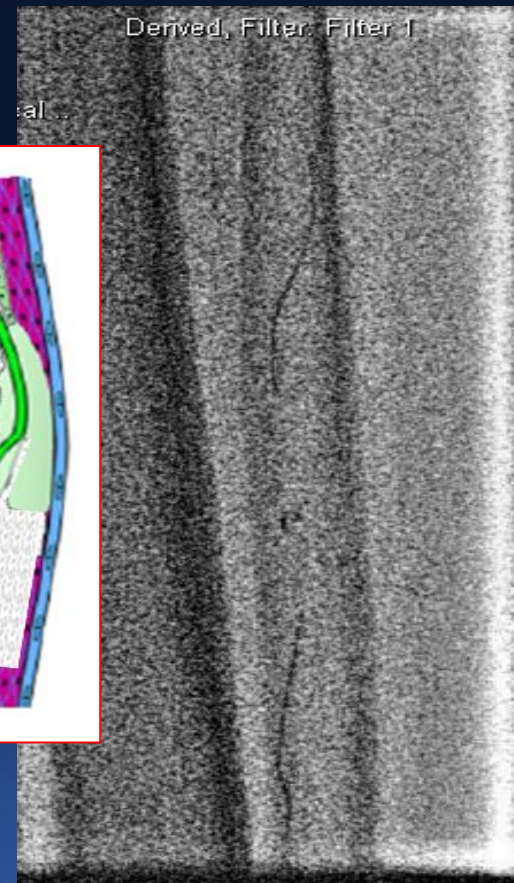
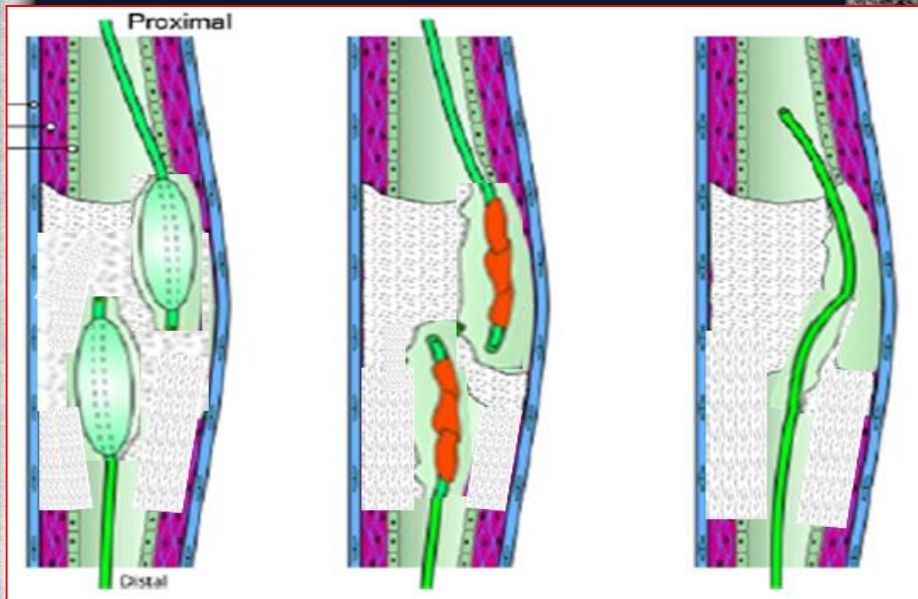
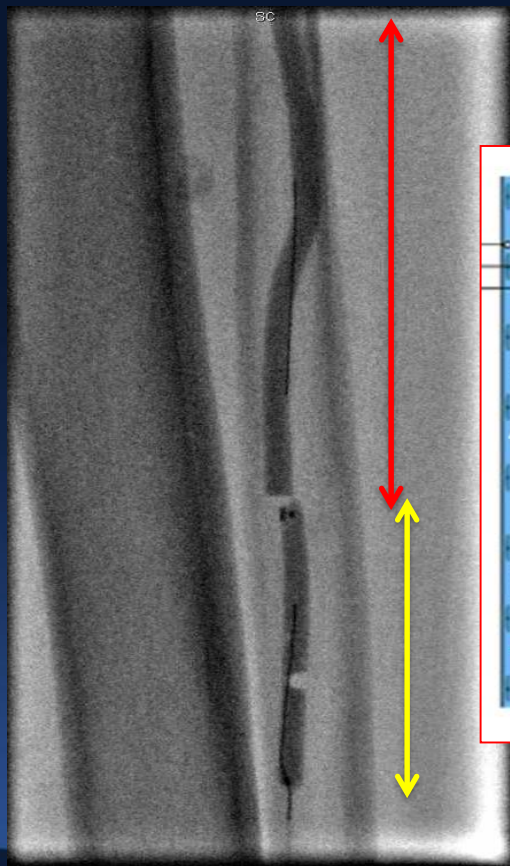


# Double Balloon Fenestration





# Double Balloon Fenestration





Filter: DSA

Filter: DSA

Filter: DSA

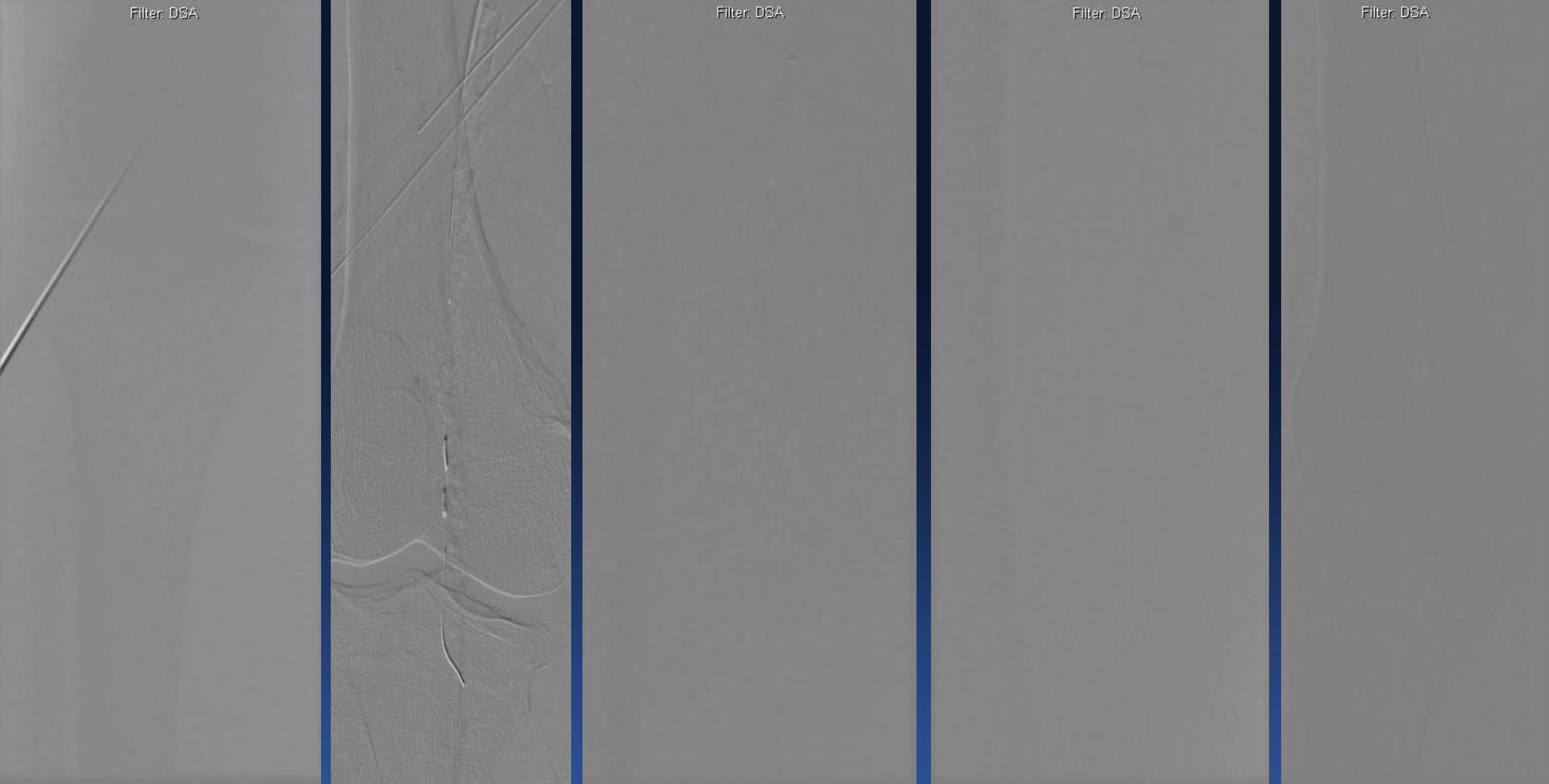
Filter: DSA

Filter: DSA

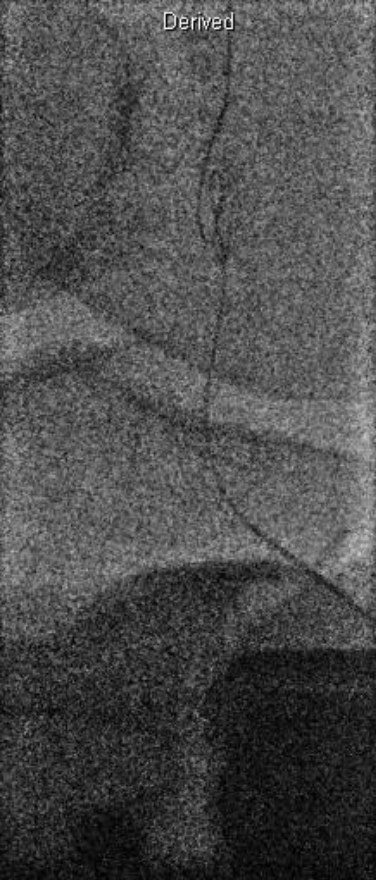
Filter: DSA

Filter: DSA

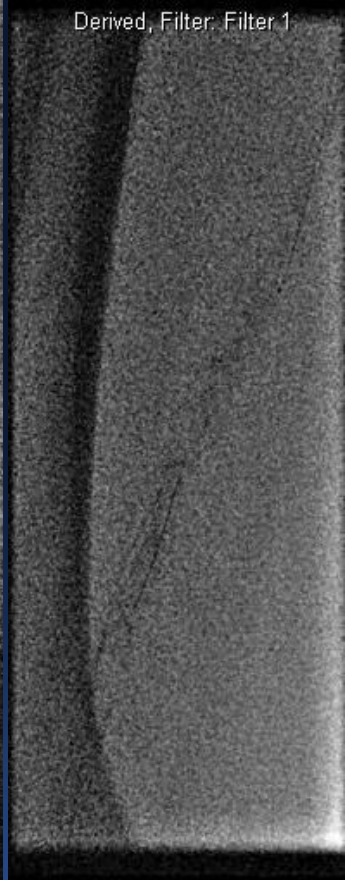
Filter: DSA



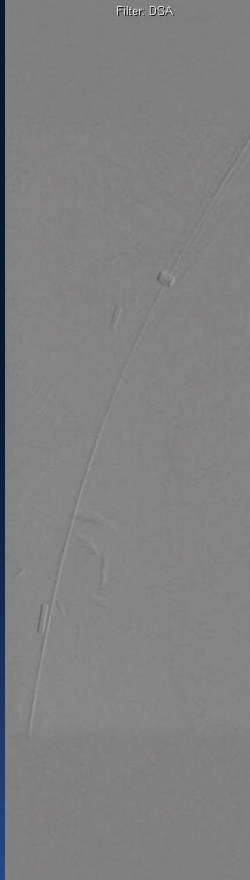
Derived



Derived, Filter: Filter 1



Filter: DBA



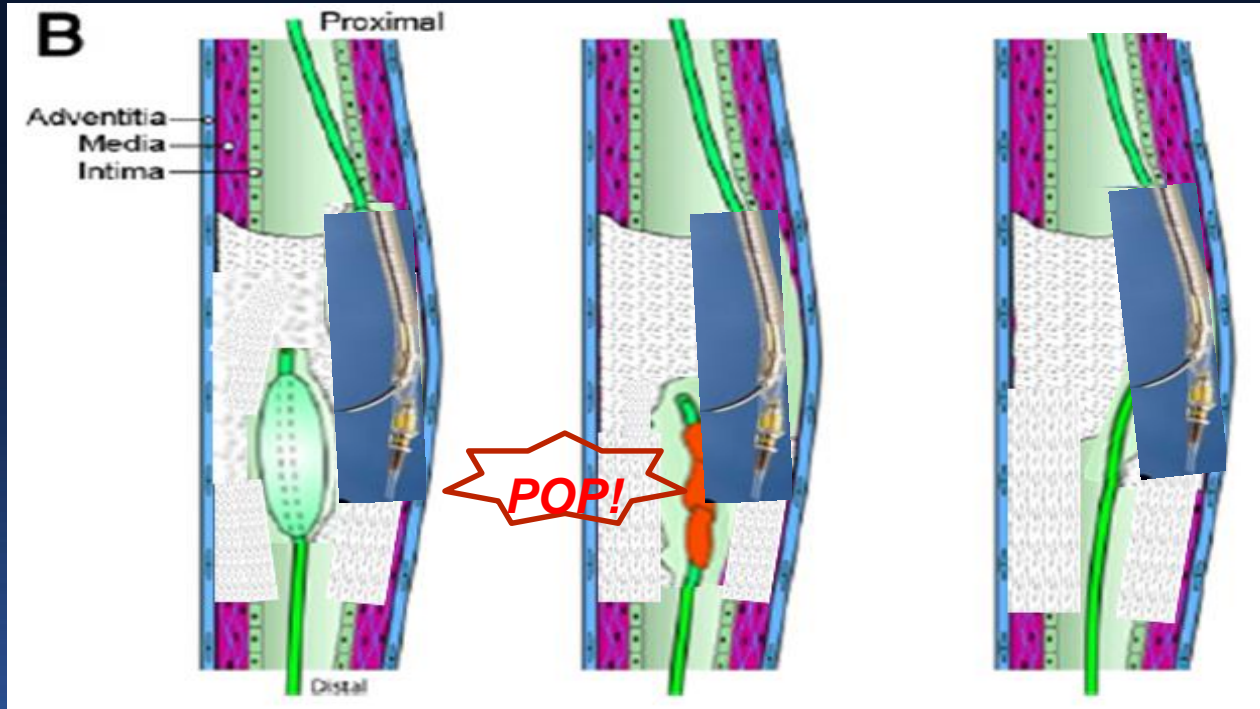
Filter: D&A



Filter: D&A

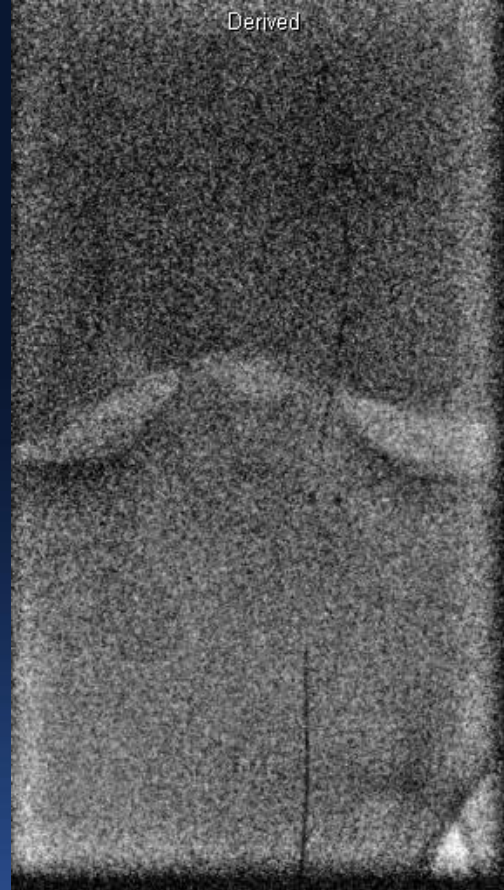
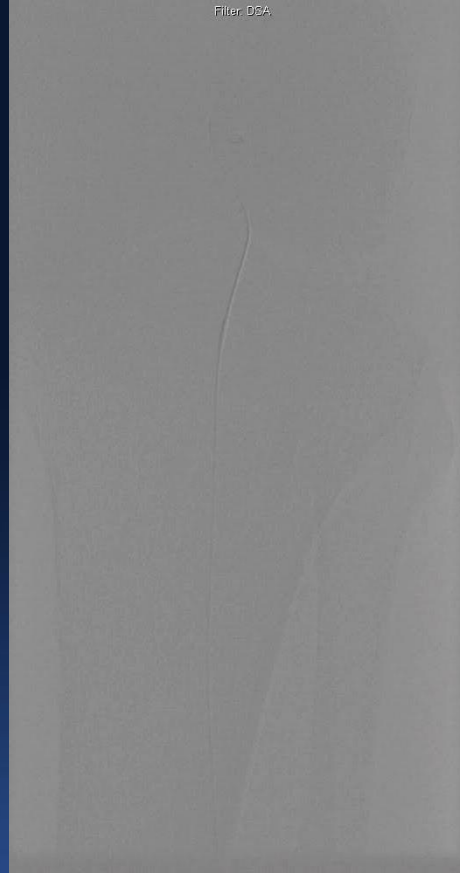


# Reentry Assisted Fenestration



Modified from Joyal, D et al. The Retrograde Technique for Recanalization of Chronic Total Occlusions. JACC Intervention 2012;5:1-11





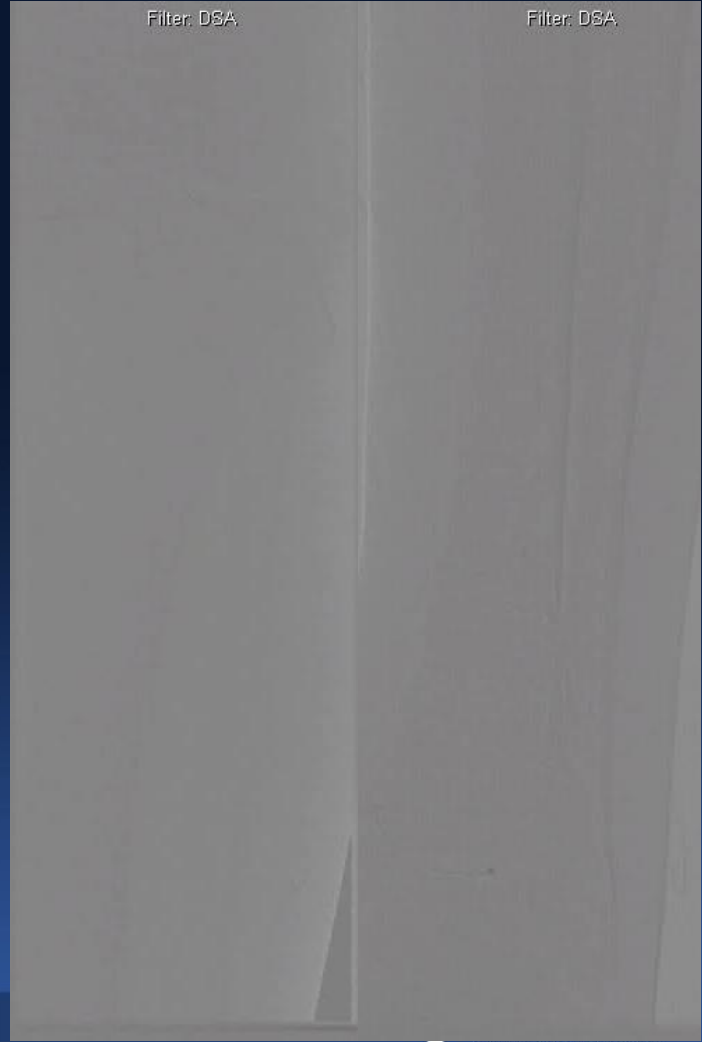
Derived

Derived, Filter: Filter 1

Derived, Filter: Filter 1

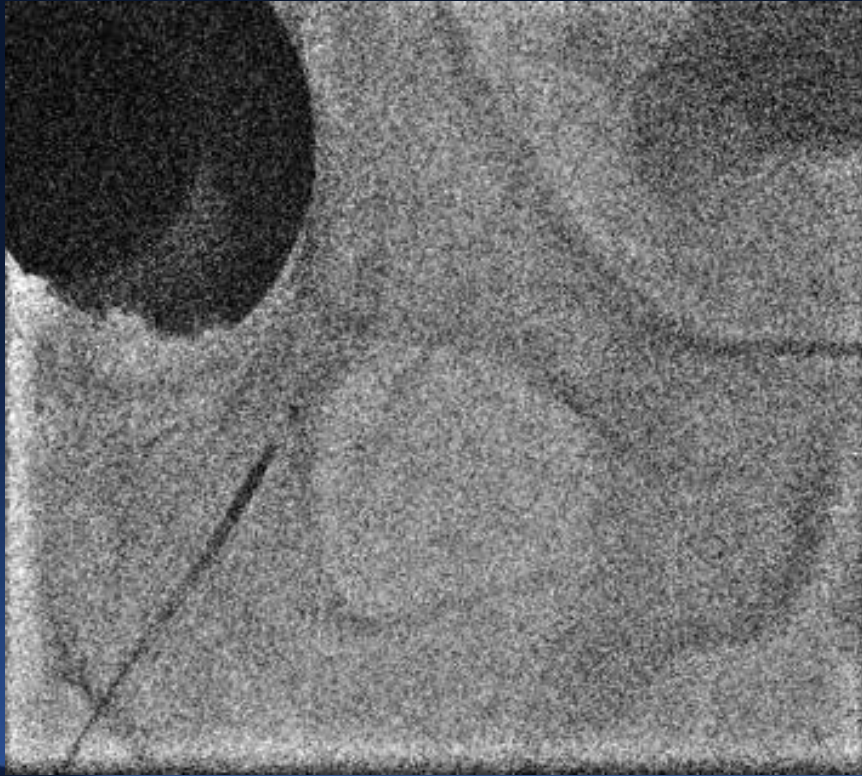
Filter: DSA

Filter: DSA





# Retrograde Reentry



- **5/6 Slender sheath**
- **Retrograde Outback reentry performed**

# Conclusions

- Procedural Success is vital to limb salvage
- Retrograde approach can significantly increase crossing ability

**Thank you for your attention**