When femoral access is not working, alternative access methods for PAD treatment

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Disclosure

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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
Alternative access methods

• Radial
  – Coronary interventions, CAS
  – Subclavian/vertebral artery with 4-6F systems
  – Visceral arteries/Iliac arteries

• Brachial
  – Coronary interventions, CAS
  – Subclavian/vertebral artery with 4-6F systems
  – Visceral arteries/Iliac arteries
  – SFA, with 150-180cm systems till popliteal artery

• Axillary
  – bifemoral atherectomy

• Retrograde
  – popliteal, pedal
Transradial access
Case

- 75 yo male
- PAD IV (Fontaine) right side
- femoro-popliteal occlusion
- Crural Bypass planned
- CTA: instent restenosis CIA
- High grade stenosis EIA, 70% tige IIA stenosis
Procedure plan

• Transradial access from left side with 3F micro-puncture set (Cook)
• 6F110cm Sheath
• Passing lesions with v18 control (Boston Scientific)
  – Angiography via 0,035 130cm Quickcross Katheter (Phillips)
    & Tuohy-borst (Optimed)
  – EIA stenting with 9x28mm Dynetic & Restenting
• CIA with 9x38 Dynetic (Biotronik)
• PTA und Stenting IIA with 5x15m renal Dynamic (Biotronik)
• Crush technique
Comfort, immediate mobility
Advantages and disadvantages

• Fast mobilization
• Patient comfort

• working length has to be taken into account
  • Consider compatibility of different products (wires/sheaths/recanalisation catheters/balloons/stents)
• Approx. 40cm longer distance
  • TASC A/B lesions
  • Enough pushability for CTO’s?

→ For PAD treatment device lengths often not long enough
Transbrachial access

• When to use it
  – In case of failed femoral recanalization attempt of iliac lesions
  – For bilateral femoro-popliteal lesions – one stop shopping strategies
  – In case of acute neobifurcation due to endografts or conventional Y-grafts
  – In ambulatory treatment settings
• 84 yo
• PAOD Rutherford IV right leg
• 25cm diffuse restenosis after recanalisation and POBA right SFA 3/12
• mycotic infection left groin
84 yo patient Rutherford IV right leg

- Final result after 6x150 and 6x100
- Everflex with 5f Entrust delivery System
Transaxillary access

Stenosis of anastomosis 2 years after Aorto-bifemoral bypass

7F/90cm Sheath, 5mm Spiderfilter, Pantheris 7F XL
Ante-/retrograde access
Case: Retrograde SFA recanalization- Bailout for perforation
CTO crossing approach based on plaque cap morphology

- In some cases retrograde access needed
• US
  – Little Ca\(^{2+}\)
  – Good device
  – Posterior/anterior tibial
• Fluoroscopy
  – peroneal
After successful puncture

- Gradually escalating with materials

1. (Wire only)
2. 0,014 oder 0,018 wire with supporting catheter
   - (Quickcross/Navicross/Trailblazer, Passeo-ballons, ...)
3. If more support needed ggf. -> thin wall
   - sheath (HaloOne BD / Slender sheath Cordis)
   - compatibility with 5F support catheter/0,035 wire
Summary of retrograde puncture

• High technical success rate
• Cheap
• Enables angiosome-oriented revascularization
• Low complication rate
Thank you for the attention!
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