TIBIAL ARTERY RECANALISATION/
SUBINTIMAL ANGIOPLASTY

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Conflict of Interest Statement

• Conflict of Interest Statement
  – None

• Affiliation with organization(s)
  – None

• Affiliation/consultance with industrials
  – Gore®
  – Cook®
  – Biotronik®
  – Abbott®
  – Bard®
Epidemiology Challenge

- Worldwide diabetic boom
  - 2 to 3 X more patients with diabetic status (20 years)
  - CLI status with BTK lesions

- Endovascular option
  - First option for BTK
MAIN CHALLENGE : SUCCESS

- Specific material and devices
  - Low profile balloon, length of balloon
    - 0.018”: OTW
      - Abbott-FoxSv®
        » 2-4 mm Ø – 20-120 mm length
      - Biotronik-Passeo®
        » 2.5-4 mm Ø – 20-170 mm length
      - Cordis-Savvy®
        » 2-4 mm Ø – 40-220 mm length
    - 0.014”: RX
      - Biotronik-Elect Explorer ®
        » 2-4 mm Ø – 10-35 mm length
      - Cordis-Sleek ®
        » 2-4 mm Ø – 40-220 mm length
MAIN CHALLENGE: SUCCESS

- Specific material and devices
  - Stent BES or SES
    - BES: high radial force and visibility
    - SES: flexibility and parietal covering

- Specific indications
  - 1/3 proximal mobile
  - 1/3 proximal: SES
  - 2/3 of BTK: BES

Knee flexion up to 90°
REAL SUCCESS

• Main technical challenge
  – To cross the lesion over
  – To reentry in the lumen

• Technical success rate:
  – 76% in the basil study for the angioplasty group - 1
  – 61% for occlusion and 84% for stenosis - 2
  – 94% of technical success – primary stenting - 3
  – 79% for PTA and 95% for stenting - 4
  – 100% of technical success - 5

2-Soder, JVIR 2000, 11;8: 1021-91.
4-scheinert, EuroPCR 2003.
• Antegrade approach
  – Advance guidewire
    • Glidewire (Terumo) 0.035” or 0.0032”, 180 cm
  – Advance sheath to popliteal level
    • Arrow 6F, 45 cm
    • Destination (Terumo) 6F, 45 cm
    • Shuttle (Cook) 5F, 45 cm / 4F, 55 cm

• RECANALISATION
  – With support catheter
  – Gives guidewires optimal pushability and steerability
• RECANALEMENT
  – Subintimal way: *Same technique: loop on a calcification +/- helped by a catheter*
TECHNICAL CHALLENGE

TPA  PA  C
• THE GUIDE WIRE
  – Hydrophilic guidewire
    • 0.035” / 0.018” / 0.014”
    • Straight or with curved tip
    • Start with guidewire of moderate stiffness (except V18 !!)
    • Increase stiffness with next wires

• IMPROVE THE TECHNIQUE .... Or change the guide wire (conclusion)
TECHNICAL CHALLENGE

• Distal retrograde approach
  – To improve the technical success rate
Patient (85 years) delivered at home at day +1
CONCLUSION-NEXT STEP

• Use of dedicated material
  – Sheath, balloon and stent

• New generation of guide wire
  – 0.018” or 0.14” wires
  – Wires for chronic occlusions
  – Shaft with high pushability and torque
  – The tip structure and coating reduces the risk of the tip of the wire being trapped in lesions
  – Abbott-Asahi MIRACLEbros®
  – Biotronik-Cruiser®
CONCLUSION-NEXT STEP
NEW WIRES

• NEW WIRES
  – Shaft with high pushability and torque
  – The tip structure and coating reduces the risk of the tip of the wire being trapped in lesions
  – Abbott-Asahi MIRACLEbros® - 0.014”

  – Biotronik-Cruiser® - 0.018”

• IMPROVING THE RECANALISATION
THANK YOU FOR YOUR ATTENTION

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