Advanced techniques for recanalization of TASC C/D iliac lesions

M. Ulrich, MD
Universitätsklinikum Leipzig AöR
Leipzig, Germany
Initial Passage of a Iliac Occlusions

Intraluminal vs. subintimal

Long and / or calcified occlusions: subintimal approach preferred
Chronic Total Occlusion of the left CIA – Recanalization Techniques -

- Retrograde Approach
- Cross-over Approach
Chronic Total Occlusion of the left CIA

Retrograde Approach

Potential Disadvantages:

- Inability to re-enter the true lumen in the area of the aortic bifurcation
Problem of Retrograde Iliac Recanalization
Problem of Retrograde Iliac Recanalization

0.035" Terumo stiff angled
Often less calcified
Cross-over Recanalization Technique

very often insufficient
Chronic Total Occlusion of the left CIA – Recanalization Techniques -

Brachial Approach

• Ideal coaxial alignment of the guiding catheter
Transbrachial Iliac Angioplasty

- Prospective analysis of 44 patients
  - Monoiliac occlusion in 35 patients
  - Bilateral occlusion in 9 patients
  - Second attempt after failed femoral approach-recan. 12 patients

- Common iliac art. 20 (37.7%)
- External iliac art. 21 (39.6%)
- common + external iliac art. 12 (22.6%)
- Mean length of occlusion 10.2 ± 3.2 cm
Transbrachial Approach for Iliac Occlusions
Transbrachial Approach for Iliac Occlusions
Transbrachial Iliac Angioplasty

• Success-rate:
  - 52 of 53 occlusions = \textbf{98.1\%}
  - in 1 occlusion wire-passage impossible

• Access-site complications
  - 4 pat. (9.1\%)
    ✓ 3 hematoma
    ✓ 1 false aneurysm

Mainly 7Fr access
Material for a transbrachial Iliac Approach

- **6 Fr** - 90 cm Shuttle sheath (COOK)
- 5F – 125 cm Multipurpose-cathetery
- 0.035“ stiff angled Terumo guidewire
- Balloon-expandable stents for aortic bifurcation (cobald-chromium stents)
- Selfexpanding stents for external iliac
Transbrachial Sheath as single Access?
After transbrachial Ballooning right CIA
Kissing Balloon or Stent Technique
Kissing-Stent
Double Access in Complex Iliac Occlusions

Calcified occlusions
Double-Access for Complex Iliac Occlusions
Risk of Occluding the Hypogastric Artery

After double approach and kissing-stent
Failure to reenter at the bifurcation
Reentry-Device for Iliac CTOs

Outback-catheter
Safer Alternative: Balloon + Outback at iliac level
Recanalization-Techniques for Complex CTOs

Outback
Recanalization of iliac occlusions

- 129 consecutive patients
  with 143 iliac artery occlusions

- Successful recanalization in 141 cases (98.6%)

- Mean stent-length 10.1 ± 5.0 cm. (20 – 240mm)

- Major procedure-related complications 0

- Minor puncture-site complications 3.9 %
TASC A – D Iliac Artery Obstructions

A transbrachial approach increases the success-rate

The only indication for surgery is a failed angioplasty
Advanced techniques for recanalization of TASC C/D iliac lesions

M. Ulrich, MD
Universitätsklinikum Leipzig AöR
Leipzig, Germany