4F devices with 0.018 for PAD treatment and Ambulatory management

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St JOSEPH CLINIC

ANGERS FRANCE
DISCLOSURE

- BIOTRONIK
HISTORY of Vascular Surgery

- Duplex Ultrasound
- Angiography: the Gold standard
- Radiologist proposition: CT or MRI
- Today: perform Diagnostic and Therapy
- Paradigm shift
  - arterio and bypass: Dg then Ttt
  - arterio and angioplasty if possible: Dg and Ttt
Personal Strategy

- The aim is to treat patients v lesions
- to perform the best
- to know were to go
- to do like vein surgery: 98% ambulatory
- the more simple with less complications
Vein surgery experience

- 3 Days of hospitalisation
- To increase the activity: build or ambulatory
- today: 98% ambulatory and X6 activity
- is it possible to do the same with artery?
Personal Experience

- 6F with manual compression : 20 min
- 6F with VCD : 150 € : 1 min
- 4F with manual compression : 8 min
- 4F with Safeguard: 8,5 € : 1 min
- THE PB : to go through the lesion
6F with 4F

- Push, maneuverability, with thin boiled spaghetti
- Learning curve or avoiding strategy
For hemostasis, surface is more important than diameter!

6F = 5.6 mm²
4F = 3.1 mm²

45% of difference
my technic

- Punction under duplex, near the lesion under GA
- 4F introducer sheath
- 0.035 guide wire
- 4F catheter, crossing the lesion, and change for 0.018
- Primary stenting and dilatation with 4F compatible stents and balloon
- No compression: SAFEGUARD 40 cc
- Deflation (5 cc) at 2 and 3h
- Discharge 3 H post procedure.
- Deflation at home 5 cc
- Ablation of the balloon the day after.
my experience

- from 2013 to 2015 287 patients intention to treat ambulatory for PAD
- Male age 70
- In fact
  - 194 ambulatory 67% (68, 158m, 36f)
    - 175 II, 13 III, 6 IV result: 92%
    - 16 (8 new dilatation, 5 by-pass, 3 reeducation)
  - 93 hospitalisation 33% (74, 44m, 49f)
    - 31 II, 44 III, 18 IV result: 90%
    - 9 (8 by-pass, 1 Dcd)
- No surgery for bleeding, few hematomas, no rehospitalization
hospitalisation indication

- 46 (50%) social : alone at home
- 24 (25%) emergency
- 16 (17%) St IV
- 8 (8%) geriatric Pb (cardio, dig, ... )
Futur

• How increase ambulatory procedures ?
  • Social pb = difficult
  • Emergency : possibility to see anesthesiologist the day of the procedure and not the day before or Local anesthesia
  • Stage IV : possibility to develop home hospitalisation and dressing
  • We are trying to get 80% ambulatory this year.
endovascular-first treatment strategy

- Adam DJ, Beard JD, Cleveland T, et al. Bypass vs angioplasty in severe ischemia of the leg: Lancet.

stent is better than angioplasty in SFA


for coronary procedures, reducing from 6 to 4F the femoral approach, decreased access complications, contrast use, mortality, and duration of hospitalisation.


no permeability difference between 4 and 6 F at 12 months, 4F is safe and effective,

- Marc Bosier, MD, Koen Deloose, MD, Joren Callaert, MD et Coll. 4 EVER Trial, J ENDOVASC THER.
Conclusion 1

- Angioplasty before by pass
- stent better than angioplasty
- 4F is safer than 6F
- 4F devices are efficient
- ambulatory for PAD treatment is possible and safe
Conclusion 2

It is easy for a big cat to go through a big hole

but

it is also possible for a small cat to go through a small one.