4F devices with 0.018 for PAD treatment and Ambulatory management

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DISCLOSURE

- BIOTRONIK

HISTORY of Vascular Surgery

- Duplex Ultrasond
- 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?

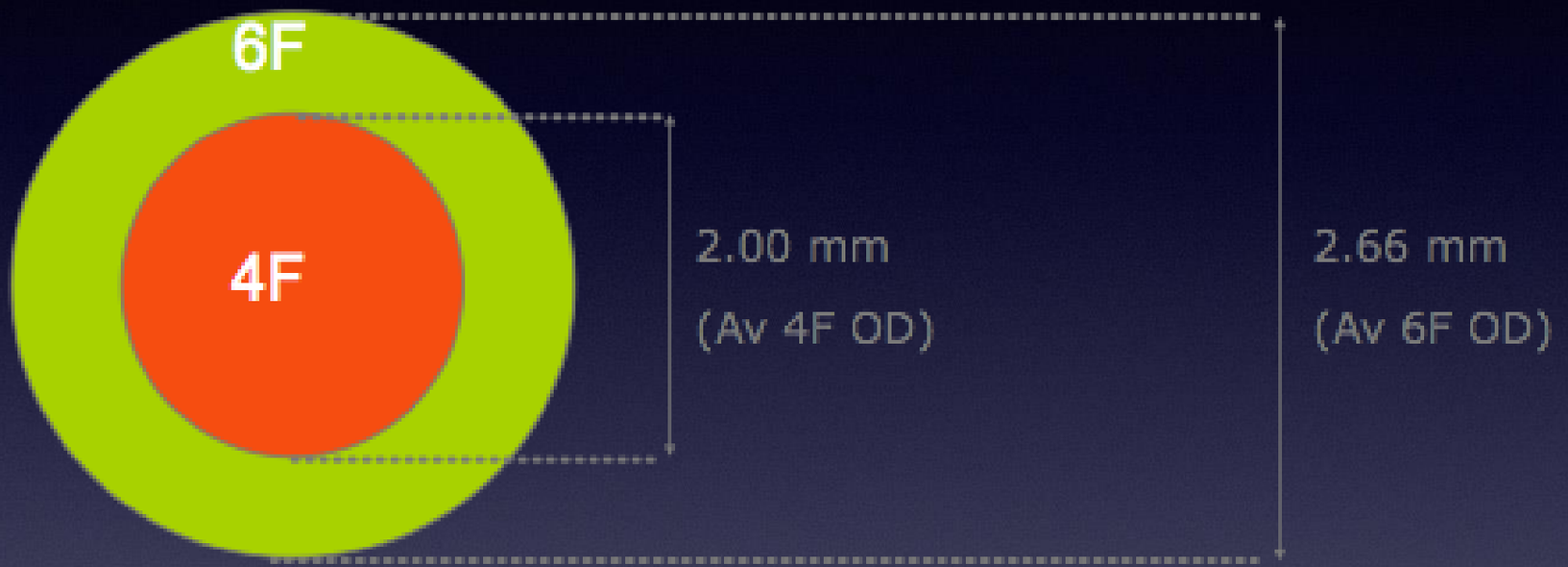
Personal Experience

- 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

6F V 4F



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 p intention to treat ambulatory for PAD
- M 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 re hospitalization

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.

Literature

- endovascular-first treatment strategy
  - Adam DJ,Beard JD,Cleveland T, et al. Bypass v angioplasty in severe ischemia of the leg: Lancet.
- stent is better than angioplasty in SFA
  - Dick P, Wallner H, Sabeti S, et al. Balloon angioplasty versus stenting with nitinol stents in intermediate length superficial femoral artery lesions. Catheter Cardiovasc Interv
  - Laird JR, Katzen BT, Scheinert D, et al. Nitinol stent implantation v balloon angioplasty for lesions in the SFA and proximal popliteal artery. Circ Cardiovac Interv
- for coronary procedures, reducing from 6 to 4F the femoral approach , decreased access complications , contrast use , mortality, and duration of hospitalisation.
  - Durst R, Lotan C, Nassar H, et al. Comparaison of 4 and 6 french catheters for coronary angiography. Isr Med Assoc J
- 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.