A French experience of ambulatory intervention for endovascular treatment of peripheral artery disease: a retrospective study

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DISCLOSURE

- BIOTRONIK

Background

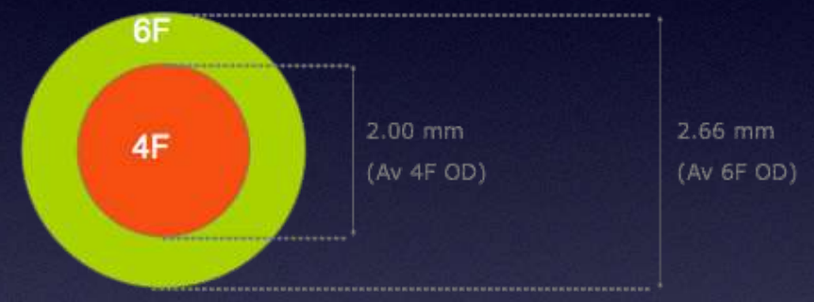
- Ambulatory management for surgery is going to be developped for economical reasons
- Vein surgery experience:
  - 3 Days of hospitalisation
  - To increase the activity: build or ambulatory
  - Today : 98 % ambulatory and X6 activity
  - Is it possible to do the same with artery?

How to minimize complications for peripheral intervention ?

1) Use 4F devices : less time, less money, smaller puncture site

- 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



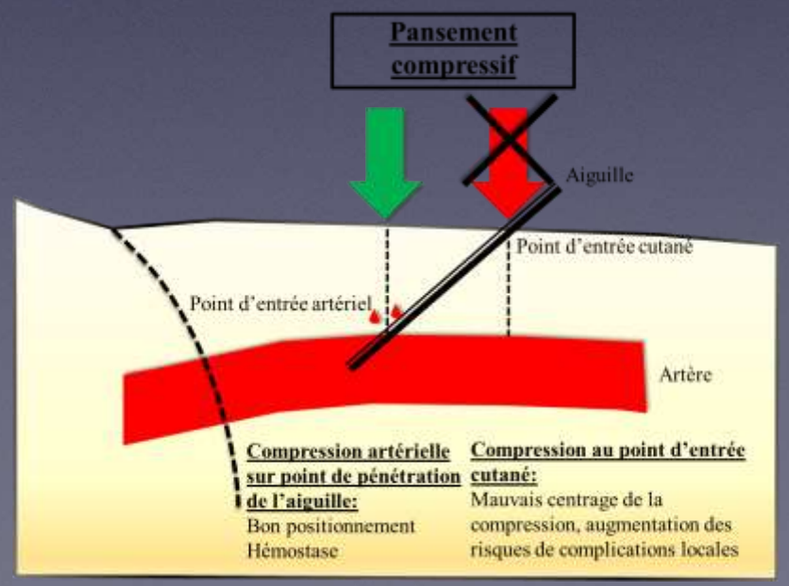
Pour l'hémostase, **la surface** du trou et non le **diamètre** du trou est important.

6F = 5.6 mm²

4F = 3.1 mm²

45 % OF DIFFERENCE

2) punction under Duplex



3) Safeguard

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 (10 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 January 2013 to December 2015

566 p for PAD

347 Surgery

219 éligible for endo-vascular treatment

67,6%

32,4%

Ambulatary

Hospitalization

42 social reason (alone at home)
16 stage IV
4 already hospitalized
18 emergency

148 P
183 procedures
235 arteries

71 P
80 procedures
111 arteries

142 follow up 147 days
0 death

65 follow up 126 days
2 death

Description of the population

	Ambulatary	Hospitalisation	Total	P value
Age	67.1 ± 12.2	75.1 ± 12.5	69.5 ± 12.8	**<0.0001**
Male	119 (80.4%)	31 (43.7%)	150 (68.5%)	**<0.0001**
History CV	99 (66.9%)	44 (62.0%)	143 (65.3%)	0.4740
HT	90 (60.8%)	35 (49.3%)	125 (57.1%)	0.1071
Diabetics	25 (16.9%)	15 (21.1%)	40 (18.3%)	0.4477
H chol	59 (39.9%)	15 (21.1%)	74 (33.8%)	**0.0061**
SMOKER	96 (64.9%)	25 (35.2%)	121 (55.3%)	**<0.0001**
OBESITY	15 (10.1%)	3 (4.2%)	18 (8.2%)	0.1898
Clinical stage				
I	0 (0.0%)	0 (0.0%)	0 (0.0%)	>0.99
II	117 (66.1%)	33 (42.3%)	150 (58.8%)	**0.0004**
III	51 (28.8%)	24 (30.8%)	75 (29.4%)	0.7521
IV	9 (5.1%)	21 (26.9%)	30 (11.8%)	**<0.0001**

Differences by population

Ambulatory

- Young
- Male
- Smoker
- Simple PAD

Hospitalization

- Old
- Female
- Complexe PAD

PROCEDURE

	Ambulotary	Hospitalisation	Total	P value
Femoral punction	180 98.4%	75 93.8%	255 97%	0.0584
Punction under duplex	183 100%	80 100%	273 100%	1
Nb of artery	1.3	1.4	1.3	
Nb of stents	1.2	1.2	1.2	0.9689
Primary succes	168 91.8%	66 82.5%	234 89%	**0.0267**

92,9% of procedure were performed with 4F devices

Cross over

566 p for PAD

347 Surgery

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Ambulatary

Hospitalization

148 P
183 procedures
235 arteries

Only 2 patients

71 P
80 procedures
111 arteries

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Reason: procedural complication, hospitalization for surveillance

FOLLOW UP

	Ambulotary	Hospitalisation	Total	P-value
Primary succes	144 (94.7%)	52 (91.2%)	196 (93.8%)	0.3496
Secondary succes	8 (5.3%)	5 (8.8%)	13 (6.2%)	
Hospitalisation rate	2 (0.8%)	-	-	-
1 month complications	0 (0,0%)	0 (0,0%)	0 (0,0%)	
3 month DC rate	0 (0,0%)	2 (2,8%)	2 (0.9%)	

Future

- 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 hospitalization and dressing
- We are trying to get 80% ambulatory this year.

Conclusion 1

- 4F devices are efficient
- Ambulatory for PAD treatment is possible and safe
- Studies must be done for more evidence
- BIO4AMB
  - Multicenter trial
  - 4F V 6F ambulotary for PAD
  - Post operative complications

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.

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