

Single center experience for peripheral arterial interventions via percutaneous brachial artery access using a 4F sheath

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Disclosure

Speaker name:

Daniel Kretzschmar

I have the following potential conflicts of interest to report:

- Consulting
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s)

I do not have any potential conflict of interest

Need for alternative access

- recent intervention to CFA
- severe aortoiliac-femoral occlusive disease
- femoral aneurysms/pseudoaneurysm
- groin hematomas
- infections
- need for bilateral interventions

Options

- axillary, radial, ulnar arteries
- translumbar approach
- Brachial artery:
 - left > right
 - -> crossing only one brain supplying artery
 - -> shorter way (very distal lesions)
 - -> handedness

Preparation

- Doppler/Ultrasound performed:
- before, d1, d30, d120
- -> brachial artery diameter, flow velocity BA, RA, UA
- Puncture 20-G micropuncture needle
- Insertion 4F radial sheath



Sheaths for intervention-Fortress

4F

5F

6F

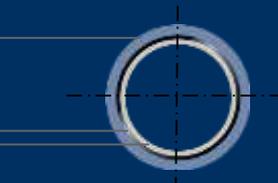


The Fortress introducer sheaths have a friction lowering PTFE liner with a polymer embedded stainless steel coil shaft design. This construction offers great flexibility and kink and deformation resistance.

Polymer cover

Stainless steel coil

PTFE liner



Cross section curved Fortress sheath



The Fortress coil reinforced sheath does not oval when curved – non-ovaling – thus diameter is maintained



Cross section curved non-reinforced sheath



Standard competitive non-reinforced sheath ovals when curved - thus diameter reduced

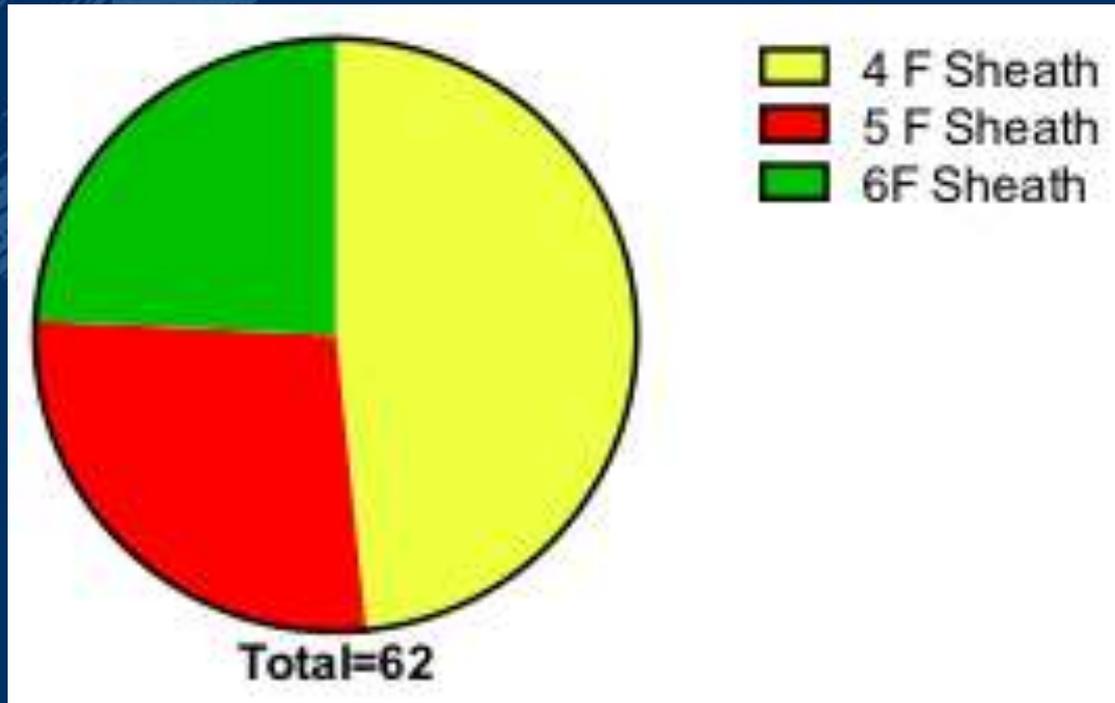
Demographics and puncture site

Variables	n
Investigations	97
Patients	92
Age (years, mean, range)	68 (46-85)
Male gender	71 (77 %)
Female gender	21 (23 %)
Left brachial artery	91 (94 %)
Right brachial artery	5 (5 %)
Puncture failure	1 (1 %)

Arterial region treated

Region	N (%)
no intervention	34 (35 %)
subclavian	2 (2 %)
iliac	42 (43 %)
femoral	23 (24 %)
unilateral intervention	52 (84 %)
bilateral intervention	10 (16 %)

Sheath size for intervention



Complications

Typ	N (%)	Sheath size
Puncture failure	1 (1 %)	
Hematoma/Bleeding	1 (1 %)	4F
Pseudoaneurysm	1 (1 %)	5F
Brachial artery dissection	1 (1 %)	6F

Example



Example



Example



Conclusion

- BA access is reliable/effective option
- offers full range of interventions
- earlier mobilization
- low complication rate
- -> especially with 4F-Intervention we only detected one hematoma (1.5 % complication rate)

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