Best Practice for EVAR of Ruptured Aortic Aneurysms

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Disclosure

Speaker name: Andrej Schmidt

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I have the following potential conflicts of interest to report:

Consulting:

Abbott, Bard/BD, Cook, Cordis, Reflow Medical, Upstream Peripheral

Between Dore and Hybrid OR

Wanhainen et al. ESVS 2019 Clinical Practice Guidelines AAA, EJVES 2019

- In case of hemodynamic instability balloon-clamping

- Graft-sizing in rAAA with hypovolemia / permissive hypotension:

- To avoid intraoperative or late type-Ia-endoleak:

  - **30% oversizing recommended**

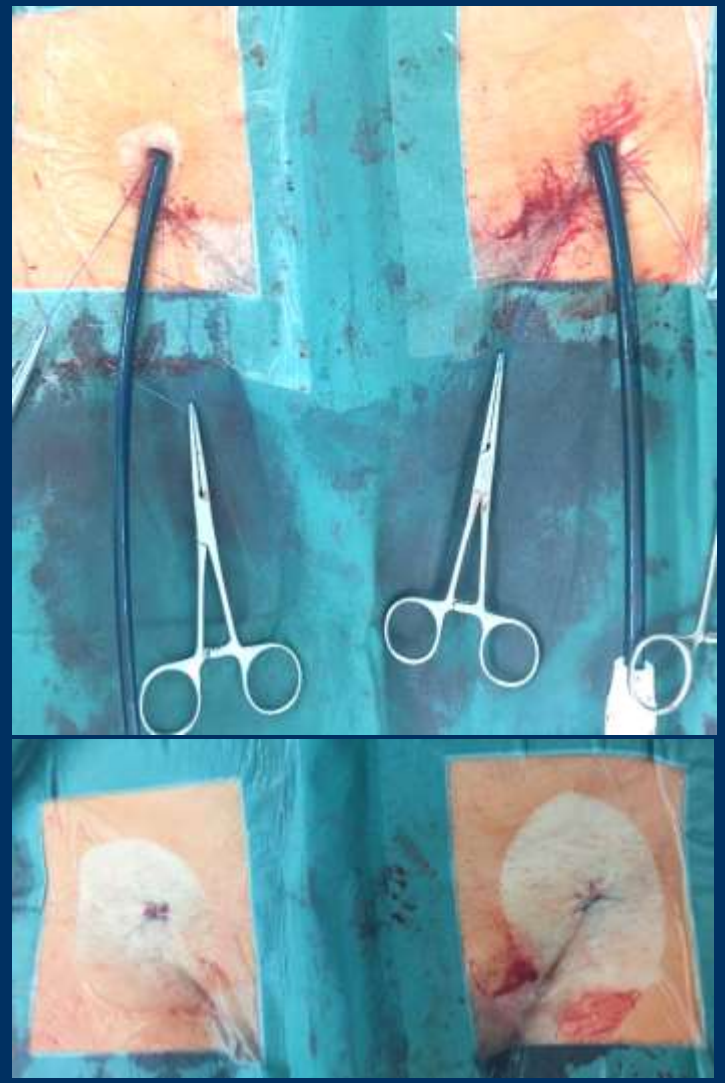
Gonthier et al. Ann Vasc Surg 2016

- Bifurcated graft preferred over aorto-uni-iliac device

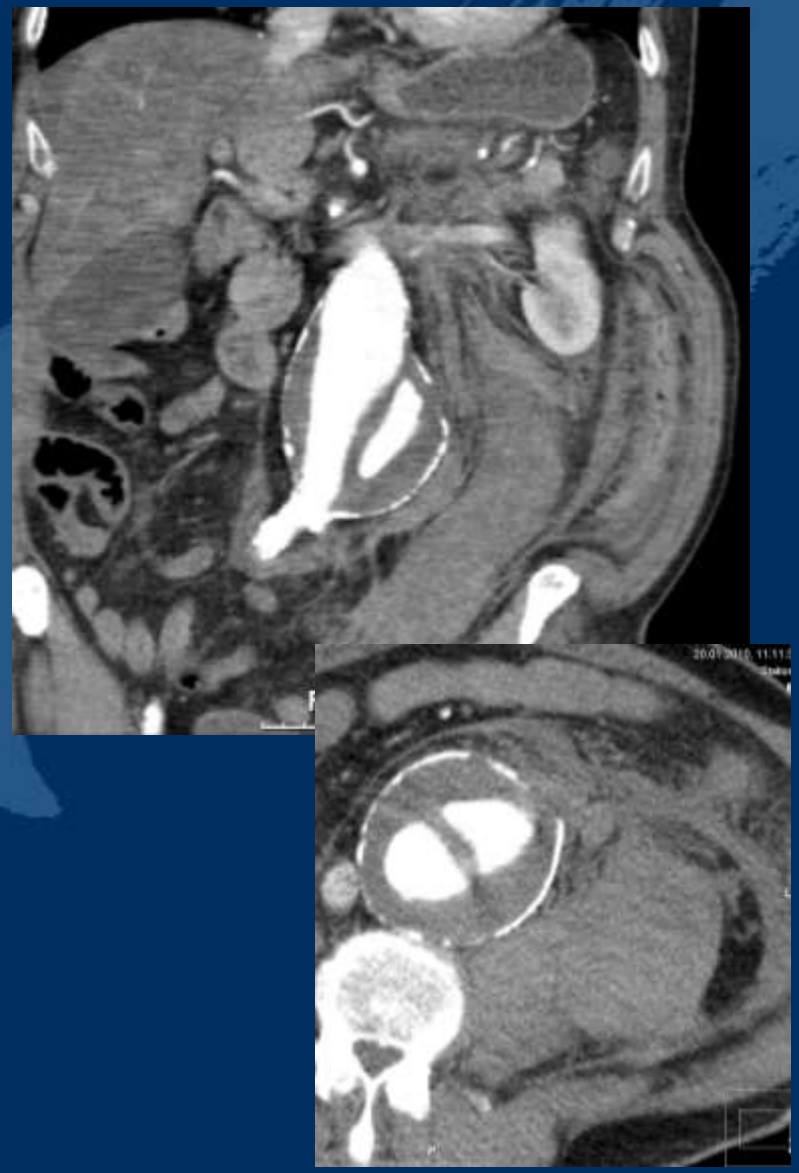
General Setting for EVAR in rAAA

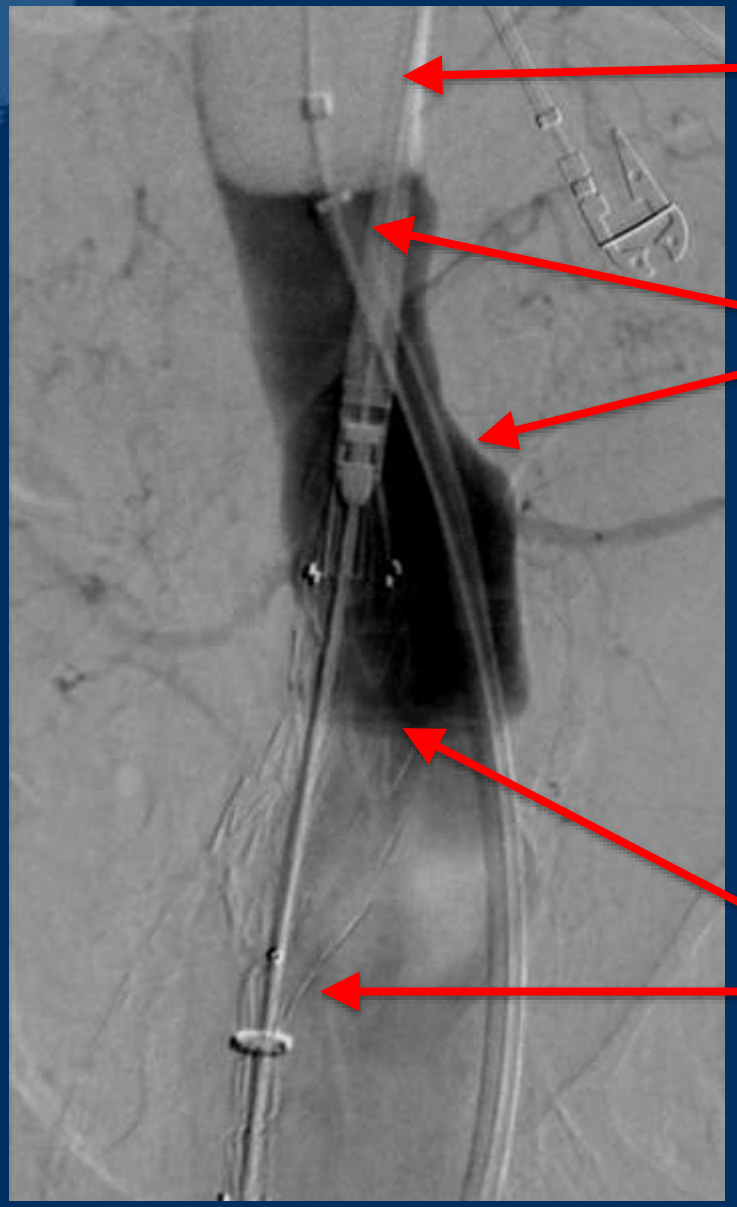
- Local anaesthesia
- No sedation
- No heparin,
  - Potentially heparinization after EVAR

- Percutaneous approach
- Preloading of Proglide-systems both groins (?)



The Double-Balloon Technique for rAAA



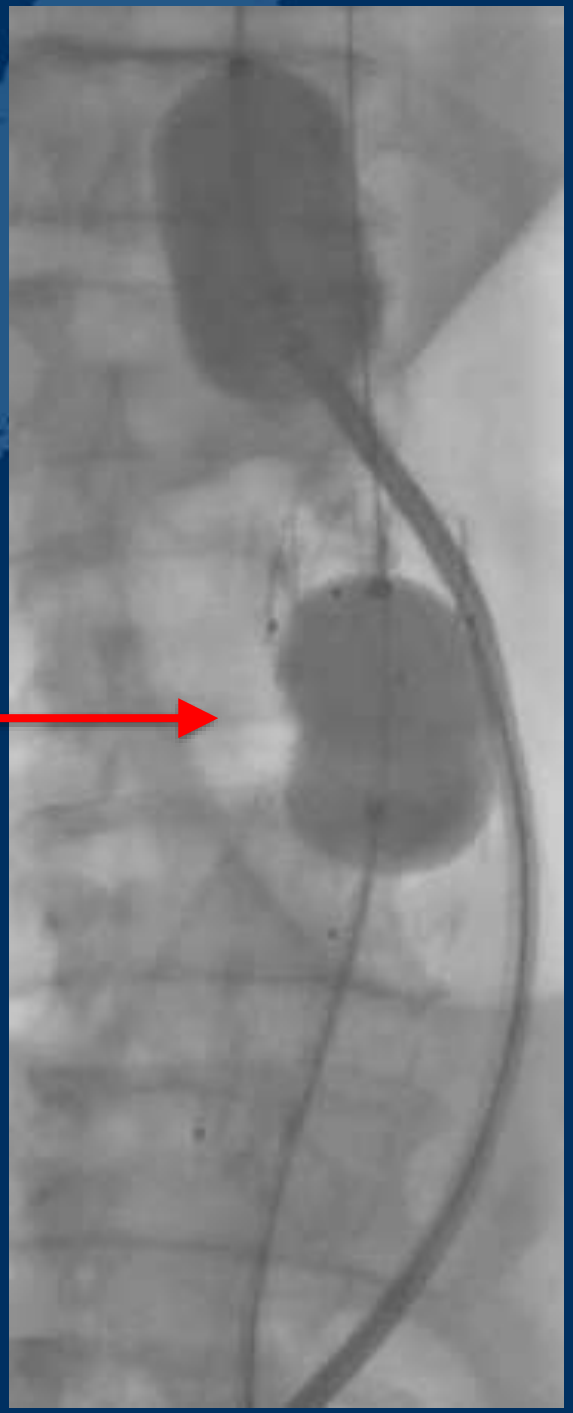


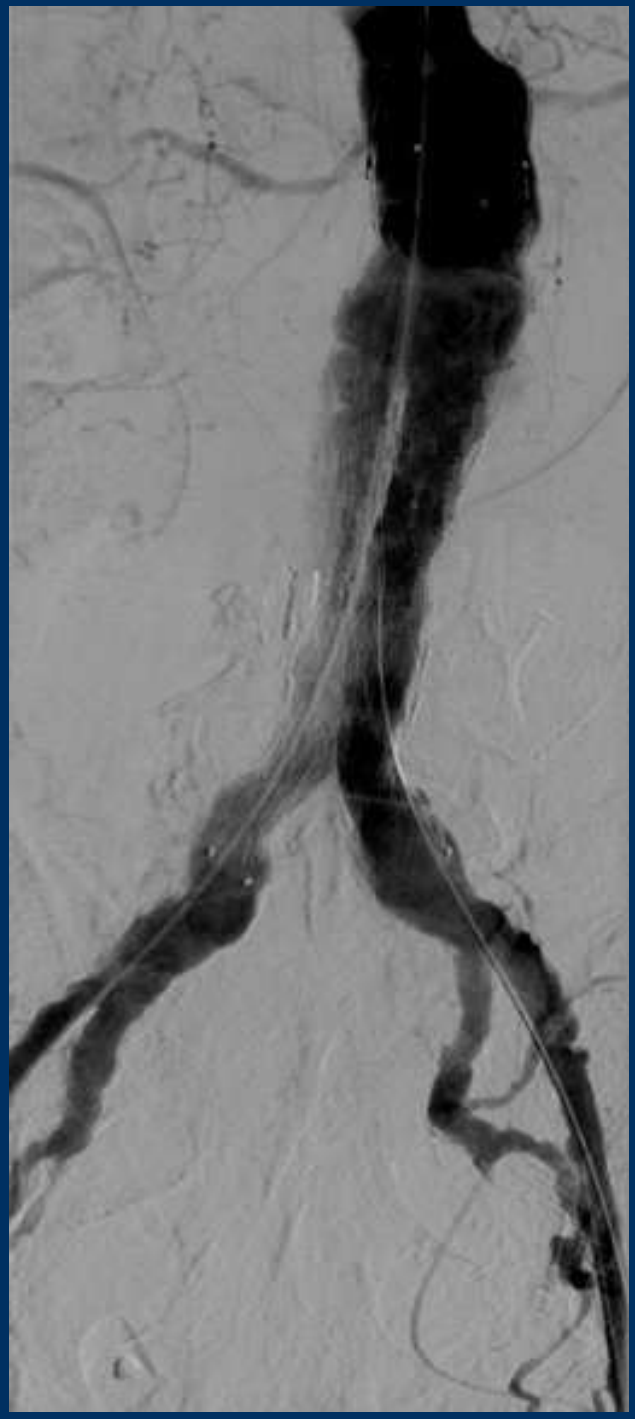
1. Reliant-balloon via right groin

12 Fr. – 45cm sheath

Graft via left groin

2. Reliant-balloon
via left groin





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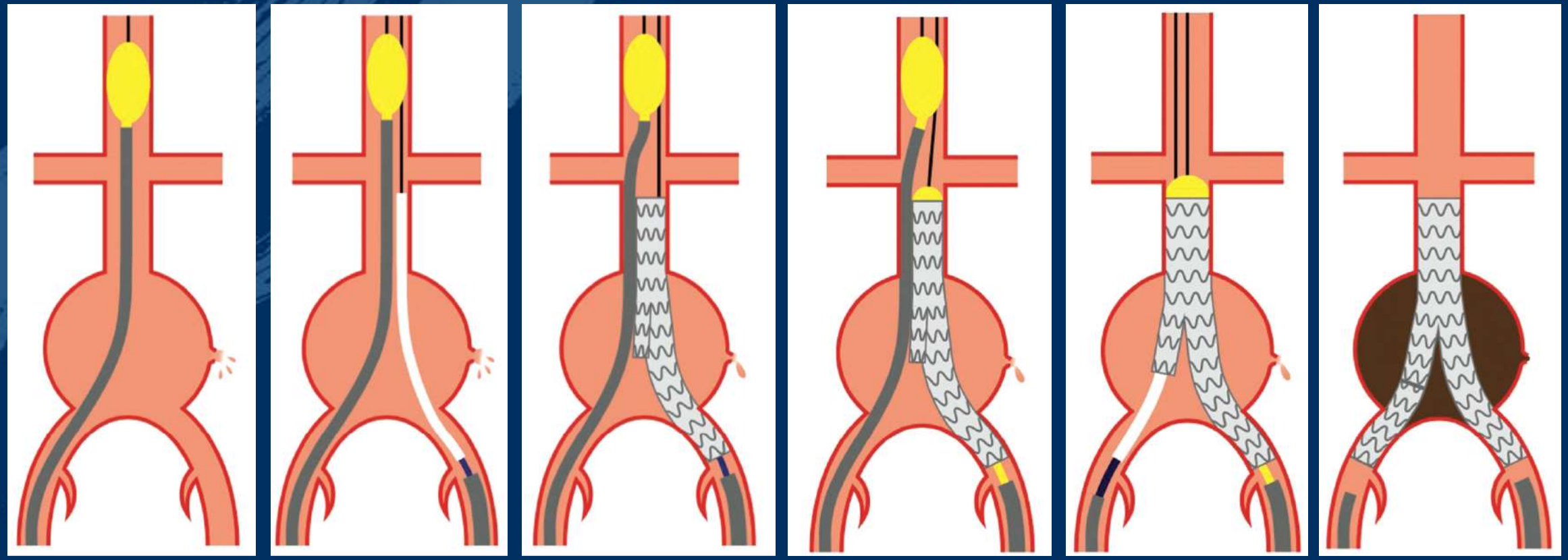
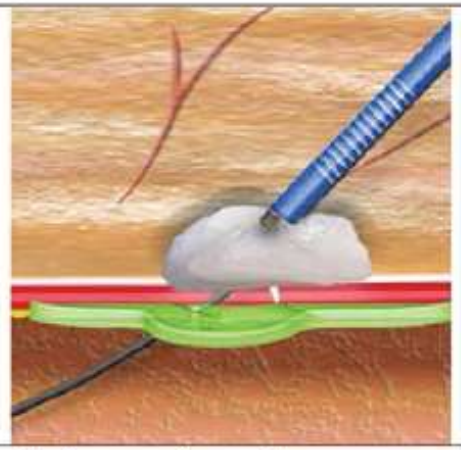
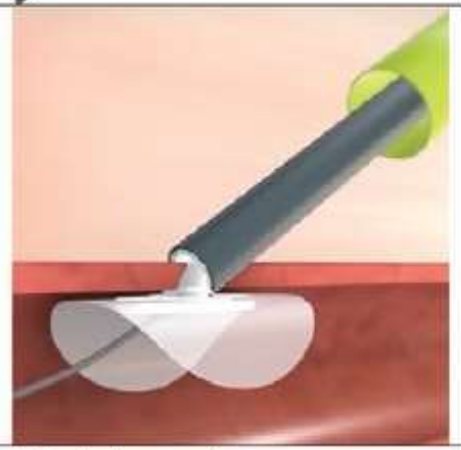
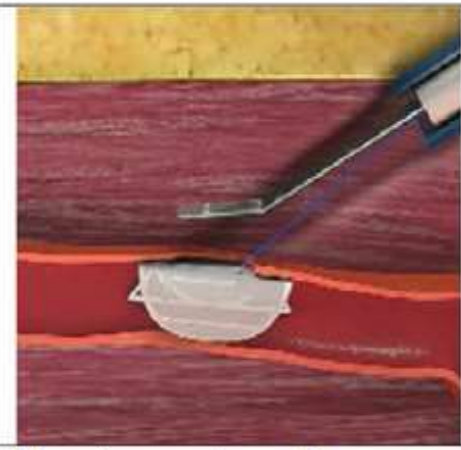


Balloon remains inflated until graft / contralateral limb is fully deployed

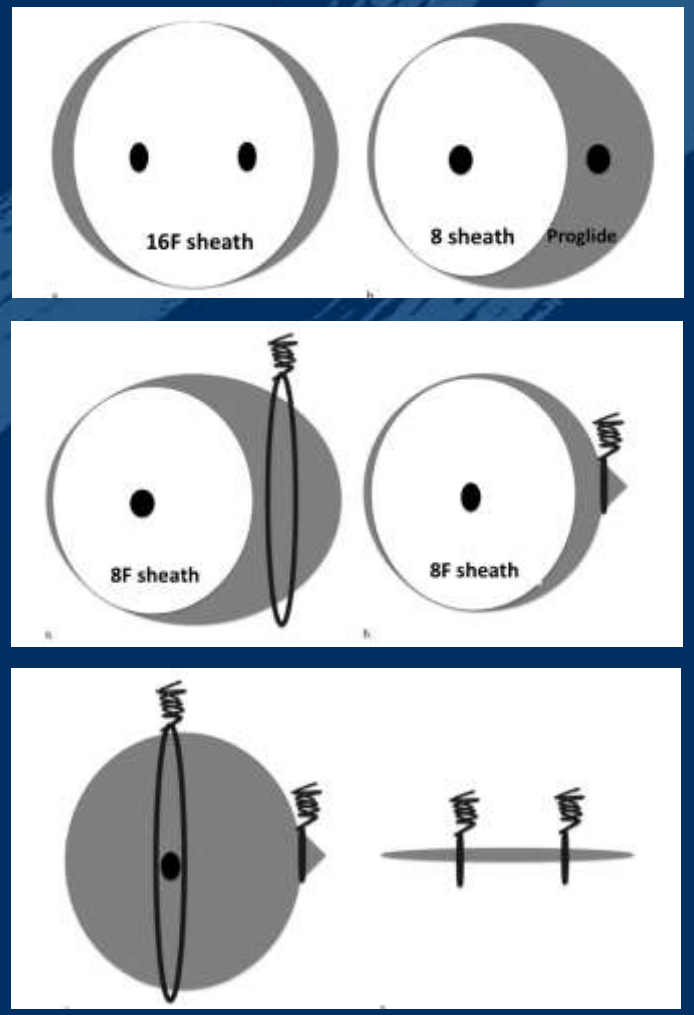
Nakayama et al. *Ann Thorac Cardiovasc Surg* 2019

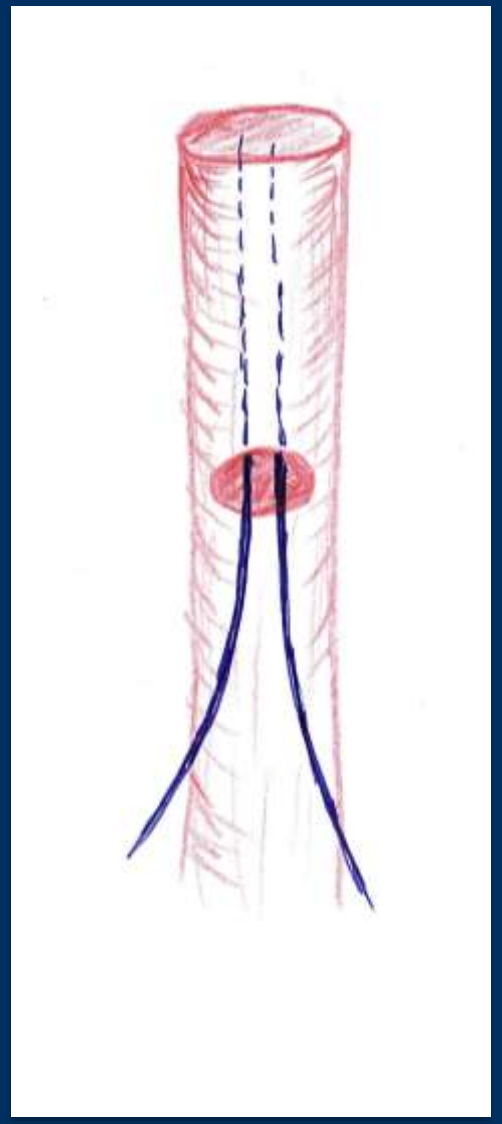
Groin-Closure after EVAR

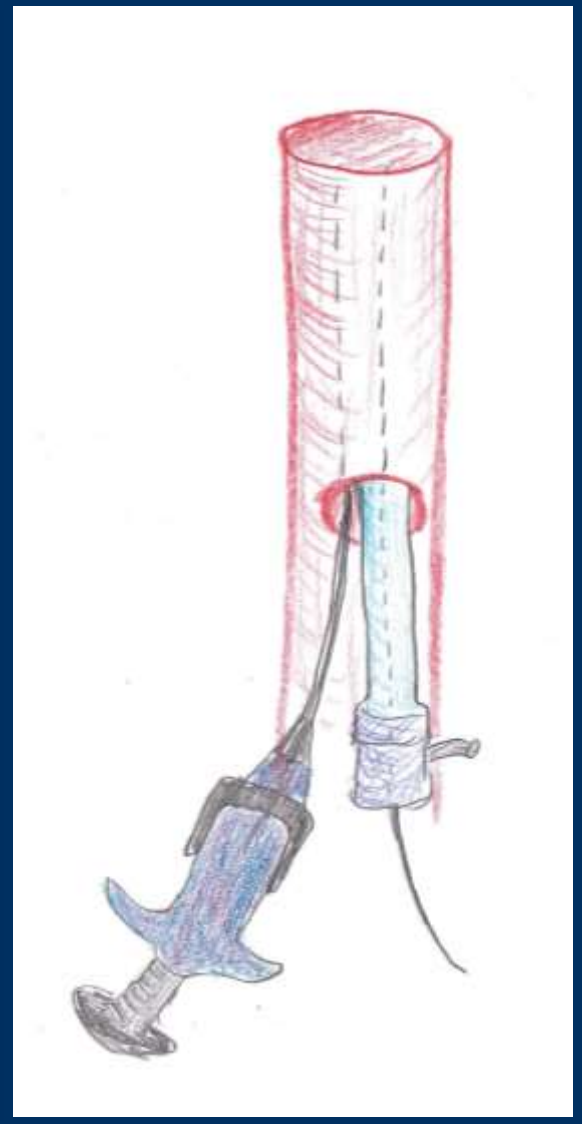
ProGlide®	MANTA™	PerQseal®	InSeal
			
			
Suture-based	Collagen-based	Patch-based	Membrane-based
5–8 Fr (off-label use > 8 Fr)	10–14 Fr (14 Fr system) 14–22 Fr (18 Fr system)	< 24 Fr	14–21 Fr
CE mark	CE mark	CE mark	CE mark

From MP van Wiechen, et al. Interv Cardiol 2019

“Postclosing” with Proglide after EVAR

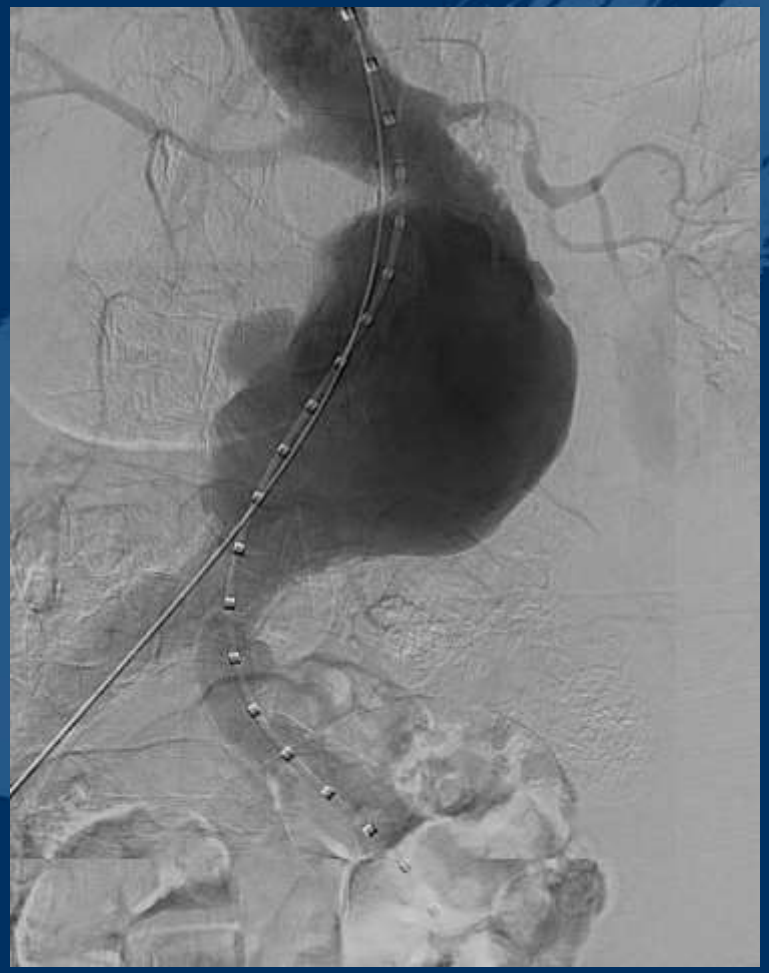


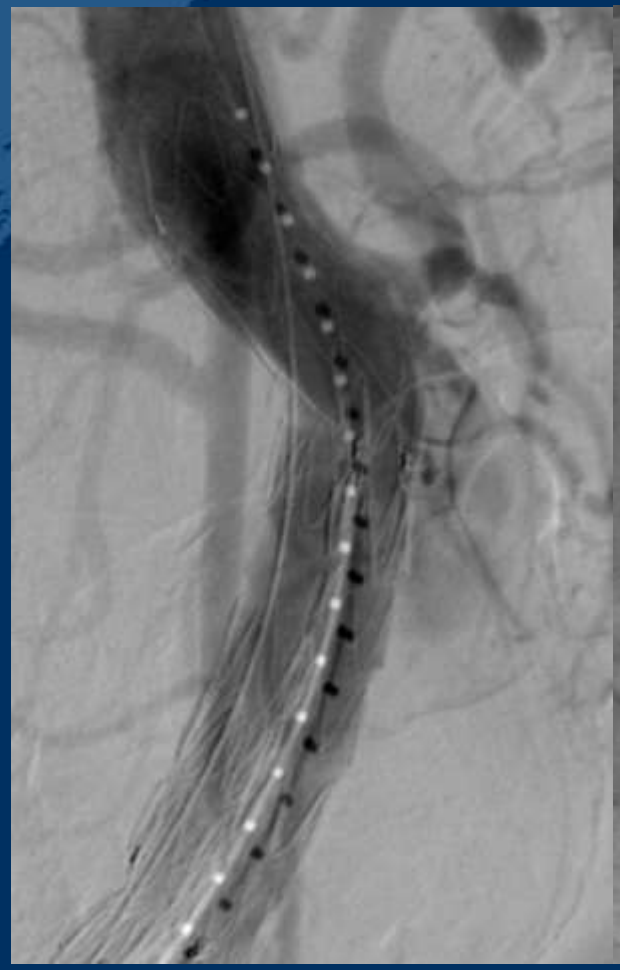


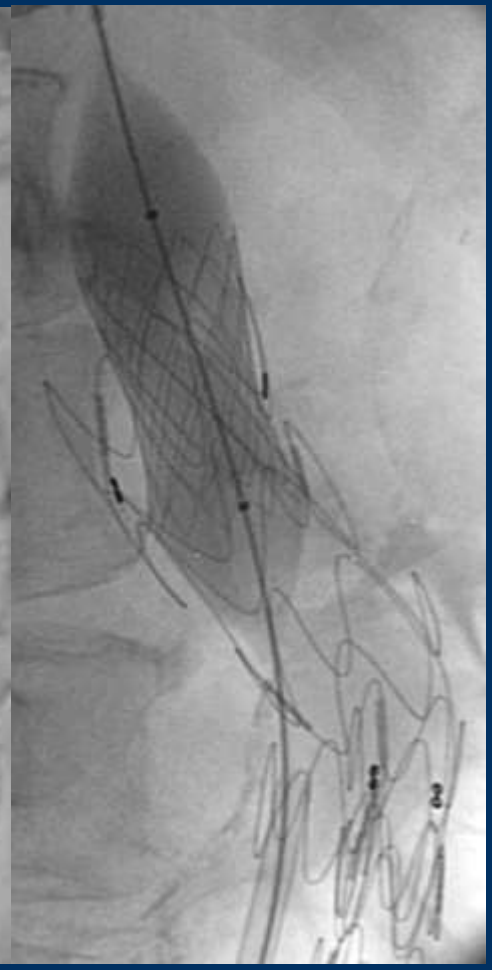


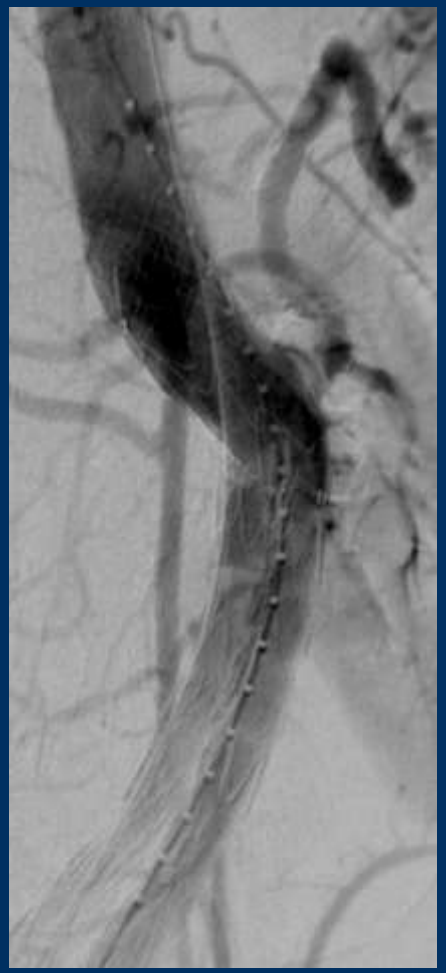
Kim TH et al. Catheter Cardiovasc Interv 2014
Uei Pua. J Vasc Interv Radiol 2015

Aneurysm-Anatomy often more hostile rAAA









rAAA-emergency-kit should contain: Palmaz-Stent Result

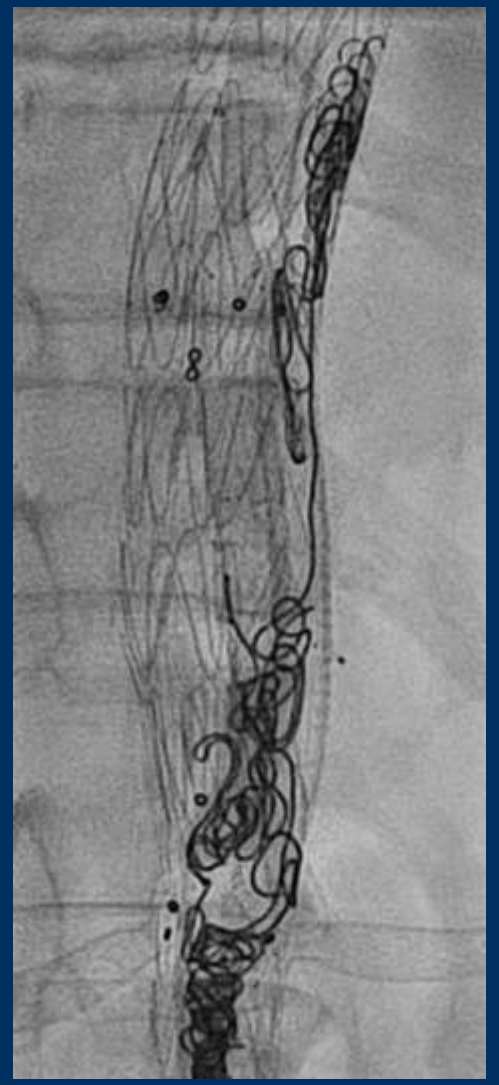
EVAR for Hostile Neck / No-Neck rAAA ?

One Hundred percent of rAAA can be treated endovascularly if adjunct techniques are used such as chimneys, periscopes and embolization.

Larzon T, P Skoog. J Cardiovasc Surg 2014

CHEVAR for rAAA

Typ Ia-endolak after EVAR +
Chimney and periscope
of a pararenal ruptured AA



Immediate gutter-coiling

Physician modified stentgrafts for juxtarenal rAAA ?

- Not for acute rupture / unstable patients

- Considered for contained / impending rupture