Three juxtarenal parallel grafts is not too many – Against

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Disclosure

Speaker name:

............G. Torsello.................................................................

I have the following potential conflicts of interest to report:

- Consulting
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Research grant by Medtronic

- I do not have any potential conflict of interest
Three juxtarenal parallel grafts is not too many – Against
Sound evidence?

No, but *a few hints in the literature* and a couple of theoretical considerations...
Protagoras registry
Protagoras registry subgroup analysis

- No significant differences between single and multiple chimneys procedures – however:

the percentage of patients treated by 3 or more chimney grafts was only 7.9%

Sandwich technique in endovascular TAAA repair

• In patients treated with 3 or 4 chimney grafts:
  – The incidence of chimney graft occlusion tended to be higher,
  – The incidence of initial type I endoleak was higher,
  – a more apparent postoperative renal function decline was noticed.

• However, the number of patients was too small for the log-rank test to reveal significant differences.

Sound evidence?

No, but a few hints in the literature and a couple of theoretical considerations...
ChEVAR is a balancing act
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Increased gutters in cases of multiple chimney as a result of an inadequate graft-aortic wall contact.
The available abdominal main bodies/cuffs have a maximum proximal diameter of 36 mm. An aortic diameter $> 29$ mm burdens the applicability of ch-EVAR due to the recommended oversizing between 20%-30%.
Sizing of the endograft: Infolding-related endoleak
Compression of the chimneys with consecutive early occlusion
The larger the number of side branches, the greater the risk for gutters and potential persistent endoleaks.
Multiple CHIMPS are more adequate in TAAAs

- More room for endograft and bridging stents
- More length for reducing gutters and creating long landing zone
Ruptured Aneurysm
Ruptured aneurysm treated with parallel grafts
CT scan after treatment of ruptured AAA with parallel grafts
Parallel placement of the chimneys
Almost horizontal placement of the chimneys
Proximal end of the covered stent should be in the perfused aortic lumen and not obstruct the SMA.
With chimneys we should not cause pollution
clearer skies
In the treatment of pararenal pathologies
Three juxtarenal parallel grafts is not too many

-Vote against the motion-
home page: www.gefaesschirurgie-muenster.de

Thank you!

Universitätsklinik Münster  St. Franziskushospital Münster
Postoperative CT angiography
Postoperative CT angiography
Type A

- Misplacement of the abdominal endograft caused by inappropriate sizing
Type B

- Insufficient landing zone
Create a sufficient landing zone
1. Symptomatic JAAA/PAU
Treatment of a pararenal aortic aneurysm with a t-branch device
AAA shrinkage
Short distance between the origin of renal artery and SMA

13.5 cm
Landing zone of > 15 mm
**Troubleshooting**

**Limitation:** gap between 22 and 38mm length  
**Solution:** The covered stent for the LRA is proximally extended
Landing zone < 20mm (n=2)
Short distance between the origin of renal artery and SMA
87-year old man with symptomatic AAA
Endurant stentgraft and V12 covered stent in the „chimney technique“
Placement of multiple chimney grafts raises specific technical challenges
Demanding anatomy for Chimneys: Tortuousity of the pararenal aorta