Value Of Chimney Grafts In Aortic Arch Repairs For Dissections And For Aneurysms: Pros And Cons

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Professor and Chairman

Disclosures
- Consultancy, travel grants:
  - WL Gore, Vascutek, Cordis, Jotec, Lombard, Philips,

Mortality

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<th>Open</th>
<th>Hybrid</th>
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<tr>
<td>Europe</td>
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Stroke

Europe 20%

Metaanalysis - Aortic Arch Hybrid Repair
(n=14 studies between 1998-2010)

<table>
<thead>
<tr>
<th>Year</th>
<th>Author</th>
<th>N</th>
<th>Stroke</th>
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**Chimney-technique**


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**Planning**

**Ascending aorta (prox. Landingzone)**
1. <42mm in Ø
2. 50 mm to the coronaries

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**Planning**

**Brachiocephalic trunk**
1. <20-22mm in Ø
2. Length >20mm

**Left CCA**
1. Normally not a problem 6-10mm in Ø
2. Length always sufficient

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**Planning**

**Left subclavian artery**
1. Normally not a problem 6-10mm in Ø
2. Length to the left vertebral artery

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**Material**

- Gore CTAG®
- Excluder® limbs for the brachiocephalic trunk
  - Ø 16-24mm L 10 cm
- Viabahn® for the left CCA and the subclavian artery
  - Ø 10mm L 5-10 cm
**Procedure cont’d**

Introducing the chimneys

Rapid pacing

Release of the CTAG 1-2 seconds prior to the chimneys (2 man-job)

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**Complications (n=28)**

Type A dissection

- 3 cases
  - 2 with type B dissection
  - 1 transapical approach

1 chimney migration

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**Literature review**

The chimney-graft technique for preserving supra-aortic branches: a review

Moulakakis et al. 2013

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**Literature review Chimneys**

124 patients

136 Chimneys

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**Results**

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<th>n</th>
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Moulakakis et al. 2013
Arch Chimney Technique

Feasible
All supra-aortic vessels can be vascularized

Arch Chimneys

Advantages:
- Cheap
- Emergency or after Sternotomy
- Short OP-Time
- Acceptable results

Drawbacks:
- "Gutter" Endoleak
- Retrograde type A dissection

Thank you very much for your attention