Management of gutter endoleaks during TEVAR with chimney in zone 0: A useful technique coiling from LCCA

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Disclosure

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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
Debranching TEVAR with Bypass Surgery
Our Trends of TEVAR in Japan

- EVAR/TEVAR
  - Conventional
  - Debranching with Bypass (including extra-anatomical) with Chimney with RIBS
  - Fenestrated Not available (Except for Najuta)
  - Branched Not available
Patient’s Selection For Z0 Chimney

1: High Risk for Open Surgery
   (Age / Condition of Patient / Anatomy etc.)

2: Length of LZ is more than 5cm
   Diameter of Ascending Ao is less than 40mm

N=19 (2010.06-)
   12.9% of total TEVAR 138 cases

M/F 17:2

mean Age 78.9 (73-87)
## Result

### Mortality

<table>
<thead>
<tr>
<th>Type</th>
<th>Mortality Rate</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td>0% (0/16)</td>
<td></td>
</tr>
<tr>
<td>Emergency (rupture)</td>
<td>33% (1/3)</td>
<td></td>
</tr>
</tbody>
</table>

### Morbidity (Major Complications)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Rate</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cerebral infarction</td>
<td>5.3%</td>
<td>(1/19)</td>
</tr>
<tr>
<td>(Bulbar Paralysis)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focal Dissection</td>
<td>5.3%</td>
<td>(1/19)</td>
</tr>
<tr>
<td>Residual Type 1a EL</td>
<td>5.3%</td>
<td>(1/19)</td>
</tr>
</tbody>
</table>
Bypass Route for Chimney
Tips of Bypass
Deployment of Chimney Grafts
Devise Selection for TAA Chimney

- **Main Devise** TAG / CTAG (WL Gore)

- **Chimney Devise**
  - Single Chimney
    - Excluder leg for BCA
  - Double Chimney
    - Excluder leg for BCA
    - FLUENCY (BARD) or Excluder leg for lt.CCA

- **Bypass with** GORETEX 8mm T shaped graft

- **Coil for EL’s** 10mm Tornade (Cook)
Coil Embolisation for Gutter EL of Chimney Grafts

Gutter EL’s were embolised for 5/19 cases (26%)
Postoperative Coil Embolization for Type 1 Endoleak After 2 Debranching TEVAR With Chimney for Arch Aneurysm

Procedure for Recent 4 Cases

Our Chimney Technique for Arch TAA

Monitoring Sac Pressure & Embolisation for Gutter Els Including type5
77YO M / 78mm TAA (post-ope CTA)
Summary

1: Chimney method showed good result for high risk patients if the Z0 landing zone is fair, and we could control gutter EL’s with the refinement of coil embolisation.

2: Feasible surgical and catheter procedure was considered to be necessary for this procedure.

3: This procedure will give way to branched stent graft in the future, but it will remain as the choice of TAA treatment in the limited cases.