An Endovascular Flap Cutting Device To Fenestrate Chronic TBADs: When Is It Needed?

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Disclosure
Speaker name: Jean-Marc ALSAC
• Patent with AP-HP

Preventive TEVAR in acute phase

• INSTEAD XL: 5 years results
  Circ Cardiovasc Interv 2013

<table>
<thead>
<tr>
<th>Follow-up</th>
<th>Stent</th>
<th>Stent-Assisted Balloon</th>
<th>Dissection Progression</th>
<th>Proximal Aneurysm Closure</th>
<th>Proximal Aneurysm Progression</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 y</td>
<td>72%</td>
<td>68%</td>
<td>41.1%</td>
<td>4.9%</td>
<td>10.3%</td>
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Closure of the proximal tear is efficient but not always sufficient

TEVAR for chronic dissection

Stiffness of the flap

Fenestration for Chronic dissection

Distal Landing Zone Open Fenestration Facilitates Endovascular Elephant Trunk Completion and False Lumen Thrombosis

A: Endovascular Elephant Trunk Completion and False Lumen Thrombosis
B: Distal Landing Zone Open Fenestration
C: Fenestrated Segment
Fenestration for Chronic dissection

Endovascular Fenestration

At the acute Phase

Endovascular Fenestration

T Okuno JVS 2012

Endovascular Fenestration

JP Beregi The Lancet 2000
Endovascular Fenestration
Acute endovascular model

Endovascular Fenestration
Acute endovascular model

Endovascular Fenestration

Endovascular Fenestration

When is it needed?

When is it needed?

• 79 patients operated for TAAA over 5 years

• 27 for Dissecting TAAA (34%)
  – ICU= 7 days (1 to 51) / Hospital =19 days (6 to 67)
  – IH Mortality = 7.4% / Paraplegia = 3.7%

• 12 / 27 (44%) technically suitable for TEVAR
Conclusions

- OR is the gold standard for Chronic AD
- Fenestration enables distal landing zone
- To increase the number of patients suitable for TEVAR
- Endovascular tool for fenestration is needed:
  - Controlled active cutting of flap
  - Adapted to a stiff fibrotic membrane
  - Safe and reproducible

Thank you for your attention
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