Use of the Roadsaver Carotid Artery Stent to treat a late pseudoaneurysm after open surgical carotid endarterectomy

Dr. Giovanni Coppi
Vascular and Thoracic Surgery Unit
Director: Dr. Reinhold Perkmann
Bozen General Hospital, Bozen
South Tyrol - Italy

Leipzig, 29/01/2020
Disclosure

Speaker name:

Giovanni Coppi

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
Disclaimer

- Trademarks are the property of their respective owner
- © 2020. Terumo, Roadsaver, Casper, FRED, FRED Jr, LVIS and LVIS Jr are trademarks of Terumo Corporation
Carotid pseudoaneurysms

- Mostly hyatrogenic (Sheath cannulation, Central venous catheters, Carotid surgery)
- Rare entity after Carotid Endarterectomy (0.3%)
- Treatment is warranted
- Endovascular treatment appealing

July 2019

- 66 yy, M
- 2005 right neck dissection + RT (Tonsil carcinoma)
- Oct. 2016 CEA of the right ICA with patch closure (peripheral hospital) → hypoglossus nerve lesion

February 2019: pulsatile enlarging mass at the level of the previous carotid surgery (Flow at Duplex)
The Roadsaver® Carotid Artery Stent

- Nitinol double layer micromesh design
- High conformability due to the braided nitinol design
- From Neurointervention: Casper Stent®, LVIS/LVIS Jr®, Coil Assist Stent, FRED/FRED Jr® (Microvention Terumo)
## Literature review

<table>
<thead>
<tr>
<th>Authors</th>
<th>Journ. Year</th>
<th>N. Patients</th>
<th>Type of Lesion/Level</th>
<th>N Stents</th>
<th>Follow up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kabbasch et al.</td>
<td>Cardiovasc Intervent Radiol 2015</td>
<td>2</td>
<td>Surgical pseudoan. mid CCA (20 mm – 25 mm)</td>
<td>2/pt.(8x30 + 8x25 mm) – 1/pt. (8x30 mm)*</td>
<td>Thrombosis @ 6 mm</td>
</tr>
<tr>
<td>Akkan et al.</td>
<td>Cardiovasc Intervent Radiol 2017</td>
<td>1</td>
<td>Sheath-ind. pseudoan. mid ICA (15 mm)</td>
<td>1/pt (8x30 mm)</td>
<td>Thrombosis @ 6 mm</td>
</tr>
<tr>
<td>Massara et al.</td>
<td>Ann Vasc Surg 2019</td>
<td>1</td>
<td>PostCEA pseudoan. ICA origin (occluded ECA) (2 cm)</td>
<td>1/pt (7x40 mm)</td>
<td>Thrombosis @ 6 mm</td>
</tr>
</tbody>
</table>

- * Casper stent
- 4 pts tot., 100% Technical and clinical success
- **No lesion involving the ECA → role of flow-diversion to preserve the ECA unknown...**
Conclusions

• Stent can be used to treat carotid aneurysms/pseudoan (outside IFU) → designed for the carotid district

• Particularly useful in the post-patch setting

• Feasible anatomy (freeflo in a straight vessel segment) and careful deployment (small markers, foreshortening)

• Results are promising – preservation of the ECA?
Thank you for your attention...

giovanni.coppi@gmail.com

Seiser Alm in Winter – South Tyrol
Use of the Roadsaver Carotid Artery Stent to treat a late pseudoaneurysm after open surgical carotid endarterectomy

Dr. Giovanni Coppi
Vascular and Thoracic Surgery Unit
Director: Dr. Reinhold Perkmann
Bozen General Hospital, Bozen
South Tyrol - Italy