Value of stent graft placement to treat cephalic arch stenosis in HD patients

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Disclosure

Speaker name:

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I have the following potential conflicts of interest to report:

☒ Consulting/Honorarium WL Gore, BD
Cephalic Arch Stenosis

Most common cause of BC AVF failure

Poor patency results with Venoplasty alone (42% 6months)

High rates of recurrence
“The central perpendicular portion of the cephalic vein as it traverses the deltopectoral groove and joins the axillary vein.”
## Cephalic Arch Stent Grafts

<table>
<thead>
<tr>
<th>Study Design</th>
<th>Study Type</th>
<th>n</th>
<th>Technical Success</th>
<th>Primary Patency 3, 6, 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shemesh et al J Vasc Surg 2008 [Fluency]</td>
<td>RCT (Stent-Graft vs Bare Metal)</td>
<td>13</td>
<td>100%</td>
<td>81%, 81%, 32% (39%, 39%, 0%)</td>
</tr>
<tr>
<td>Rajan and Falk JVIR 2015 [Viabahn]</td>
<td>RCT (Stent-Graft vs PTA)</td>
<td>9</td>
<td>100%</td>
<td>100%, 100%, 29% (60%, 0%, 0%)</td>
</tr>
<tr>
<td>Jones et al JVIR 2017 [Viabahn]</td>
<td>Retrospective</td>
<td>39</td>
<td>100%</td>
<td>85%, 67%, 42% (Venographic)</td>
</tr>
<tr>
<td>Miller et al J Vasc Surg 2018 [Viabahn]</td>
<td>Retrospective</td>
<td>50</td>
<td>100%</td>
<td>90%, 74%, 60%</td>
</tr>
</tbody>
</table>
Bare Metal Stents vs Stent Grafts

Angioplasty with stent graft versus bare stent for recurrent cephalic arch stenosis in autogenous arteriovenous access for hemodialysis: A prospective randomized clinical trial

David Shemesh, MD, Ilya Goldin, MD, Ibrahim Zaghal, MD, Daniel Berlowitz MB, BChir, David Raveh, MD, and Oded Olisha, MB, BS, Jerusalem, Israel

Use of the Viabahn stent graft for the treatment of recurrent cephalic arch stenosis in hemodialysis accesses

Gregg A. Miller, MD, Dean C. Preddie, MD, Yevgeny Savransky, MD, and Lawrence M. Spergel, MD, Brooklyn, NY; and San Francisco, Calif
Stent Grafts

Self-expanding
Precise delivery
Flexible
Conform well
Durable

BD Covera flared

Image courtesy of Dr Karunanithy, London
Stent graft positioning

Image courtesy of Dr Karunanithy, London
Stent graft positioning
Edge stenosis

Site of re-stenosis:
Lateral edge > Both edges > Medial edge
Summary – Value of Stent Grafts

Poor results with Venoplasty and Bare Metal Stents

Consider Stent Graft when Venoplasty fails

Stent-grafts: high primary patency rates and low re-intervention rates

Technical considerations important

Thank You
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