A series of BeGraft implantations in isolated aortic stenosis: a women’s issue?

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Isolated aortic stenoses /occlusions

Uncovered stents

- prevent elastic recoil
- incomplete prevention of embolisation
- no solution in case of rupture
Bentley BeGraft
Balloon-expanding vascular prosthesis

high radial force

high flexibility

controlled shortening
Isolated aortic stenoses / occlusions

Covered Stent
Isolation of plaque material with thrombus
- no embolisation
Suprarenal calcified aortic stenosis: BeGraft balloon expanding aortic stent graft

A.K.-f. 61 y
Isolated infrarenal aortic stenosis

- renal retention
- aorto-iliacal prosthesis in place
- now highly calcified stenosis cranial of prosthesis
Exact measuring in both CTA and angiography to select suitable BeGraft aortic endoprosthesis.
Isolated infrarenal aortic stenosis

K. B. f-61 y

Cranial extension of prostheses with BeGraft
Isolated infrarenal aortic stenosis

M. El-N. f-70 y
Isolated infrarenal aortic stenosis

C. P. f-50 y smoker
Isolated infrarenal aortic stenosis

I. D. f-53 y  Leriche syndrome
Isolated infrarenal aortic stenosis
BeGraft balloon expanding aortic stent graft

f 53 y
Isolated infrarenal aortic stenosis

- pain-free walking distance 150 m
- sexual dysfunction

the only man in this series....

F. S. m-37 y
Isolated infrarenal aortic stenosis

pain-free walking distance 300 m

Limitation is the distance to aortic bifurcation due to the rather long balloon shoulder.

Repositioning of balloon after partial expansion necessary.
Isolated infrarenal aortic stenosis

pain-free walking distance 300 m
asymptomatic post-procedure

S. F. f-47 f
Isolated infrarenal aortic occlusion

B.R.-f, 60 y
Isolated infrarenal aortic occlusion

B.R.-f, 60 y
Isolated aortic occlusion

B.R.-f, 60 y
Infrarenal aortic stenoses or occlusions

Implantation of BeGraft aortic stentgraft –
Results mean FU of 11 months (0-23)

<table>
<thead>
<tr>
<th>11 high grade stenoses and 1 total occlusion</th>
</tr>
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<tbody>
<tr>
<td>Mean age</td>
</tr>
<tr>
<td>61 yrs.</td>
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<table>
<thead>
<tr>
<th>Gender-dependent disease</th>
<th>1:12</th>
<th>m:f</th>
</tr>
</thead>
<tbody>
<tr>
<td>women</td>
<td>10</td>
<td>(92 %)</td>
</tr>
<tr>
<td>men</td>
<td>1</td>
<td>(8 %)</td>
</tr>
</tbody>
</table>

- Technical success: 100%
- Distal embolisation: 0%
- Recurrent stenosis: 0%
- Stent fractures: 0%
- Rupture: 0%
- Mortality: 0%
## Isolated aortic stenosis or occlusion

### A younger women’s disease

<table>
<thead>
<tr>
<th>Study Details</th>
<th>Age (y)</th>
<th>Women (%)</th>
<th>% Occlusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audet P et al. Radiology 1998</td>
<td>mean 51.9</td>
<td>75/92 (81.5)</td>
<td>0.0</td>
</tr>
<tr>
<td>Simons PCG et al. EJVES 2006</td>
<td>39-80</td>
<td>14/17 (82.4)</td>
<td>0.0</td>
</tr>
<tr>
<td>Schwindt A et al. JVS 2011</td>
<td>mean 64.1</td>
<td>30/52 (57.7)</td>
<td>23.0</td>
</tr>
<tr>
<td>Kim T-H et al., JVS 2011 (Asians)</td>
<td>36-86</td>
<td>9/49 (18.4)</td>
<td>100.0</td>
</tr>
<tr>
<td>Rogoveanu R et al., BMJ 2012</td>
<td>72</td>
<td>1/1 (100)</td>
<td>0.0</td>
</tr>
<tr>
<td>Grimme FAB et al., EJVES 2014</td>
<td>37-78</td>
<td>23/36 (63.9)</td>
<td>5.6</td>
</tr>
<tr>
<td>Monastiriotis S et al, JVS 2018</td>
<td>37-49</td>
<td>17/17 (100)</td>
<td>0.0</td>
</tr>
</tbody>
</table>
Men vs women - Gender

Men suffer more from aortoiliac disease

Women suffer rather from isolated aortic stenosis/occlusion (more likely to be underdiagnosed)

Both are usually heavy smokers
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