Horizon And Nexus Endografts: A New Concept For Branch Endografting In The Thoracic And Abdominal Aorta
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Consultant & Clinical Proctor: Endospan

Horizon™ diameters

Horizon - Advantages

- Single lumen modular design allows
- Higher crimping capability = lower profile
- Improvement in flexibility
- No need for contralateral cannulation
- Fitting most anatomies
## Horizon - Advantages

Anatomical Fixation allows
- Motion reduction
- Potentially less migration

## HORIZON – Case demonstration

![HORIZON case demonstration](image)

## HORIZON – Case demonstration

![HORIZON case demonstration](image)

## Horizon™ CE Study – Clinical Outcomes

<table>
<thead>
<tr>
<th>Safety Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=30 Freedom of *MAEs within 2 month post implantation</td>
</tr>
<tr>
<td>*MAE - All-cause mortality, MI, Renal failure, Respiratory failure, Paraplegia, Stroke, Bowel ischemia, Procedural blood loss ≥ 1000 ml</td>
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</tbody>
</table>

### Performance Results @ 1 month

<table>
<thead>
<tr>
<th></th>
<th>N=30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Successful delivery and deployment</td>
<td>100%</td>
</tr>
<tr>
<td>Conversion to open surgery</td>
<td>0%</td>
</tr>
<tr>
<td>Stent graft migration</td>
<td>0%</td>
</tr>
<tr>
<td>Stent graft patency</td>
<td>100%</td>
</tr>
<tr>
<td>Stent graft failure</td>
<td>0%</td>
</tr>
</tbody>
</table>

### Performance Results @ 6 months (27/30 completed FU)

<table>
<thead>
<tr>
<th></th>
<th>N=27</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stent Graft patency</td>
<td>100%</td>
</tr>
<tr>
<td>Conversion to open surgery</td>
<td>0%</td>
</tr>
<tr>
<td>Stent graft migration</td>
<td>0%</td>
</tr>
<tr>
<td>Stent graft failure</td>
<td>0%</td>
</tr>
<tr>
<td>Stent graft type</td>
<td>100%</td>
</tr>
<tr>
<td>Aneurysm growth ≥ 5mm</td>
<td>0%</td>
</tr>
</tbody>
</table>

## CONCLUSIONS - HORIZON

- The initial safety and effectiveness is promising
- 1 year FUP of FIM shows good outcomes
- Implantation technique is appealing
- Single-side access device

- EU FIM Study (n=10) – Completed
  - 3 sites
- CE Pivotal Study (n=30) – Enrollment completed (April 2015)
  - 7 sites
- Compassionate Cases – Ongoing
CONCLUSIONS - HORIZON

- The initial safety and effectiveness is promising
- 1 year FUP of FIM shows good outcomes
- Implantation technique is appealing
  - Single-side access device and 14F OD system makes PEVAR safer and easier
Implantation technique

Trough & Trough GW
20 Fr sheath

Off-the-Shelf

SA bypass
- LSA (13)

Debranching
- RCCA and LCCA (1)

Periscopes
- LSA (6)

Custom made Module 2

Challenging Zone 0

Management of SA truncs (13 patients)
## Nexus™ FIM Study + Compassionate Cases - Clinical Outcomes

<table>
<thead>
<tr>
<th>Event</th>
<th>No. of Patients</th>
<th>Details</th>
</tr>
</thead>
</table>
| Death | 2/13 | Technical success 13/13  
FIM #1: 11 days post implantation, due to respiratory decompensation and MOF  
Compassionate #2: 2 days post implantation, due to MI |
| Stroke | Stroke 4/13  
Permanent deficits 0/13 |  
FIM #5: left side hemiparesis  
FIM #5: right arm paresis  
Compassionate #3: right side hemi-syndrome  
Compassionate #4: right arm paresis |
| Spinal Cord Ischemia | 1/13 | Compassionate #4: arch and descending aneurysm  
CSFD post implantation, patient recovered |
| Endoleak type Ia or III | 1/11 | Compassionate #2: Type III Endoleak at 3 month follow up  
In addition 2/11 Type Ib (gutters of PG) |

### Advantages- NEXUS
- Off-the Shelf device
  - Potentially fits most arch anatomies
- "Low"-profile sheath
  - 20 F fits most iliacs
- T&T technique allow accurate positioning/adjustment
  - Minimum of manipulations in arch
- Allows staged supraaortic surgery
  - Shorter TEVAR procedure

### Conclusions
- New design devices
  - "Low profile" systems
  - Early experience shows promising results
  - Allow extending EVAR to unmet patient populations