12-year experience with the treatment of aortoiliac aneurysms by the iliac branch devices: Results of the pELVIS Registry

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Disclosure

Speaker name: Gergana T. Taneva.................................

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
Secondary Procedures Following Iliac Branch Device Treatment of Aneurysms Involving Iliac Bifurcation:

CLINICAL INVESTIGATION

Use of Iliac Branch Devices for Endovascular Repair of Aneurysmal Distal Seal Zones After EVAR

Results of Iliac Aneurysm Repair with Iliac Branched Endograft:

Consecutive Cases

Surgical versus endovascular repair by iliac branch Common iliac artery aneurysm: Expansion rate and results of open surgical and endovascular repair

Ying Huang, MD, PhD, Peter Gloviczki, MD, Audra A. Duncan, MD, Manju Kalra, MBBS, Tanya L. Hoskin, MS, Gustavo S. Oderich, MD, Michael A. McKusick, MD, and Thomas C. Bower, MD, Rochester, Minn

The most common limitation for IBD is the presence of hypogastric aneurysms (HA), and IFU USE for IBD is OUT OF HA.
Purpose

Evaluate The **Performance** Of Iliac Branch Devices (IBDs) In The Presence Of Hypogastric Aneurysms
pELVIS Registry. Methodology

- Multicentric retrospective analysis
- Clinical and radiological data
- Prearranged and defined protocols
pELVIS Registry. Methodology

January 2005 – April 2017

804 patients, 910 IBDs
(Cook ZBIS IBDs or Gore IBEs) (96 bilateral)

9 European Centres
The pELVIS Registry

St. Franziskus Hospital
University of Münster
University of Leipzig
San Camillo Forlanini Hospital
University of Perugia
University of Rome Tor Vergata
University of Florence
University of Hamburg
University of Lille Chru
The pELVIS Registry. Imaging Follow Up

CTA postoperatively

6 months DUS

CTA (DUS/MRI) annually
Results. pELVIS Registry

32 months mean radiological follow-up (± 27 months)

910 deployed IBDs

315 (34.6%) Hypogastric Aneurysms
Results. Hypogastric Aneurysm Performance With Ibds

<table>
<thead>
<tr>
<th>Type I Endoleak</th>
<th>HA</th>
<th>Non-HA</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3%</td>
<td>0.7%</td>
<td>.019</td>
</tr>
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</table>
Log-rank (Mantel-Cox) test, p=.405

94% vs 94%
"ON" vs "OFF LABEL" (IIA > 12mm)

Cumulative Freedom from IBD Related Reinterventions

Log-rank (Mantel-Cox) test, p = 0.088

81% vs 72%
"ON" vs "OFF LABEL" (IIA > 12mm)

Cumulative freedom from IBD related Type I Endoleak

Time in months

Log-rank (Mantel-Cox) test, \( p = .006 \)

Cumulative Freedom from Endoleak T-I at 5 years: 98% vs 93% respectively
HA group showed significantly more pelvic ischemia

<table>
<thead>
<tr>
<th></th>
<th>HA</th>
<th>Non-HA</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pelvic ischemia</td>
<td>6.4%</td>
<td>2.7%</td>
<td>.011</td>
</tr>
<tr>
<td>- Buttock claudication</td>
<td>5.3%</td>
<td>2.2%</td>
<td>.019</td>
</tr>
</tbody>
</table>
Subgroup Analysis for Patients with HAs

Log-rank (Mantel-Cox) test, $p = 0.036$

Cumulative 5 years IBD Patency 90% vs 99% respectively
Single vs. Multiple Stenting

<table>
<thead>
<tr>
<th>Condition</th>
<th>Single</th>
<th>Multiple</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buttock claudication</td>
<td>6.7 %</td>
<td>1.4 %</td>
<td>.038</td>
</tr>
<tr>
<td>IBD-related type I Endoleak</td>
<td>5.6 %</td>
<td>0 %</td>
<td>.003</td>
</tr>
</tbody>
</table>
Discussion and Conclusions.

IBDs In Presence Of HAs

• The present series of IBD in presence of HAs is the largest report.

• The presence of HA worsens significantly the outcomes of IBDs.
Conclusions.
IBDs In Presence Of HAs

- Lengthening the distal sealing zone is paramount to improve the results.

- CTA surveillance is needed over time to detect possible complications.

- Use more than one bridging stent.
- Extend into the distal normal IIA or one of its branches.
Thank you
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on behalf of the pELVIS registry collaborators