Visceral aneurysms

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Disclosure

Speaker name: Refaat Salman

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)

- [x] I do not have any potential conflict of interest
• True visceral arterial aneurysms defined as dilations (1.5x) of splanchnic arteries.
• Prevalence 0.1-2% (higher on some autopsy series)
• Increased frequency of diagnosis through the increased availability of cross-sectional imaging
• **Etiology:**
  • Most commonly atherosclerotic in the elderly.
  • Connective tissue disorders in younger population.
• Splenic: 60-70% of VAA
• Hepatic: 20%
• Renal: 20%
• SMA: 5.5%
• Celiac: 4%
• GDA: 2%
• Pancreaticoduodenal: 2%
• Approx. 20% aneurysms rupture, mortality rate 20-100%
• Increased risk in pregnancy
• Indications for treatment:
  • >2.0cm diameter, increasing size, childbearing age, pseudoaneurysms
Advantages of Endovascular treatment strategies:

- Reduced periprocedural-morbidity and mortality
- Good long-term occlusion
- Low complication rate <4%
- 93.2% technical success, 99.3% visceral preservation

Many different techniques:
- Deconstructive
- Reconstructive
• DECONSTRUCTIVE Vessel sacrifice/ embolization:
  • Coil
  • Plug
  • Liquid embolics

• RECONSTRUCTIVE Vessel preservation:
  • Balloon coil
  • Stent coil
  • Covered stent
  • Flow diverter
52-year-old female with incidental finding of 2.5 cm right renal aneurysm
57-year-old pretransplant 1.5 cm splenic artery aneurysm
Incidental Finding
ENDOVASCULAR FLOW-DIVERSION OF VISCERAL AND RENAL ARTERY ANEURYSMS

A/PROF MARK BROOKS
INTERVENTIONAL RADIOLOGIST
AUSTIN RADIOLOGY
MELBOURNE

P VAN VEENENDAAL, J MAINGARD, H KOK, D RANATUNGA, T BUCKENHAM, R CHANDRA, M LEE, H ASADI
Flow diverting

- Allows side branch preservation
- Can be introduced and deployed in very tortuous arteries
<table>
<thead>
<tr>
<th>Pt</th>
<th>Vessel</th>
<th>Device</th>
<th>Adjunct</th>
<th>Imaging F/U</th>
<th>Branch patency</th>
<th>Complic</th>
<th>Success</th>
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<tbody>
<tr>
<td>1</td>
<td>Splenic artery</td>
<td>CASPER 9x30mm</td>
<td>coil embolization aneurysm</td>
<td>4 Week US Occluded</td>
<td>Yes</td>
<td>None</td>
<td>Yes</td>
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<td>2</td>
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<td>CASPER 7x30mm</td>
<td></td>
<td>12 month CTA Unchanged</td>
<td>Yes</td>
<td>None</td>
<td>No</td>
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<tr>
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<td>Splenic artery</td>
<td>CASPER 8x40mm</td>
<td>Coil embolization of branch</td>
<td>splenic infarct Splenectomy Occluded</td>
<td>No</td>
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<td>CASPER Surpass</td>
<td></td>
<td></td>
<td>Yes</td>
<td>None</td>
<td>Unk</td>
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<tr>
<td>5</td>
<td>Renal artery</td>
<td>CASPER 9x30mm</td>
<td></td>
<td>6 Months CT Occluded</td>
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<td>Yes</td>
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<td>CASPER 7x30mm</td>
<td></td>
<td>CT at 9 months Partial occlusion Size unchanged</td>
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<td>No</td>
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<td>CASPER 7x30mm</td>
<td>ONYX 500 liquid embolic</td>
<td>7 month US Occluded</td>
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<td>Surpass 5x40mm</td>
<td></td>
<td>3 week CT Occluded</td>
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<td>Yes</td>
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<tr>
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<td>Surpass 5x50mm</td>
<td></td>
<td>12 months Occluded</td>
<td>Yes</td>
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<td>Yes</td>
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</table>
CASPER CAROTID STENT (MICROVENTION)

SURPASS INTRACRANIAL FLOW DIVERTING STENT (STRYKER)
SURPASS
51 years old female with history of incidental renal artery aneurysm

Presented with right flank pain
April 2017
THANK YOU