Branch for IMA in branched EVAR

- when and why?

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Disclosures Dr. Kasprzak (grants, speaker fee, development)
Cook, Gore, Vascutek, Bard, Medtronic, Maquet, UCB, Bentley
Adverse consequences of internal iliac artery occlusion during endovascular repair of abdominal aortic aneurysms

Laura A. Karch, MD, Kim J. Hodgson, MD, Mark A. Mattos, MD, William T. Bohannon, MD, Don E. Ramsey, MD, and Robert B. McLafferty, MD,

Incidence of symptomatic colon ischemia after endovascular AAA repair

<table>
<thead>
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<th>Symptomatic colon ischemia</th>
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<tbody>
<tr>
<td>Entire series (N = 96)</td>
<td>3/96 (3.1%)</td>
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<td>Unilateral IIA occlusion (N = 20)</td>
<td>1/20 (5.0%)</td>
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<td>Bilateral IIA occlusion (N = 2)</td>
<td>2/2 (100%)</td>
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Overt ischemic colitis after endovascular repair of aortoiliac aneurysms

Patrick J. Geraghty, MD, Luis A. Sanchez, MD, Brian G. Rubin, MD, Eric T. Choi, MD, M. Wayne Flye, MD, John A. Curci, MD, Robert W. Thompson, MD, and Gregorio A. Sicard, MD, *St Louis, Mo*

- 233 Pt
- CI 1.7% (4 Pts)
- 50% Mortality

*JVS 2004*
Colon ischemia following abdominal aortic aneurysm repair in the era of endovascular abdominal aortic repair

Jean-Pierre Becquemin, MD, Marek Majewski, MD, Nicoletta Fermani, MD, Jean Marzelle, MD, Pascal Desgrandes, MD, Eric Allaire, MD, and Françoise Roudot-Thoraval, MD, Creteil, Paris

- 1174 Pt (492 EVAR)
- Low rate of CI (2.9%)  ...but...
- 53% 30-day Mortality
- Independent factors for CI: Rupture/ OR Duration / Crea >200 μmol/l
Possible Indication for IMA Branch

- High-grade stenosis / occlusion of the Celiac Trunk
- High-grade stenosis / occlusion / dissection of the SMA
- Bilateral occlusion of the Hypogastric Artery
- IMA ≥ 4mm
IMA / Lumbar Branch

- High-grade stenosis / occlusion of the Celiac Trunk
- High-grade stenosis / occlusion dissection of the SMA
- Bilateral occlusion of the Hypogastric Artery
- IMA ≥ 4mm

2 TAAA
1 Perirenal AAA
1 Infrarenal AAA
Preserving patent IMA

• Igari K et al.
  Two cases of successful inferior mesenteric artery preservation with bare metal stent in endovasular iliac artery aneurysm repair
  Ann Vasc Dis 2013; 6: 674-7

• Donas KP et al.
  Novel indication for chimney graft placement in the inferior mesenteric artery in AAA patient with coexistent bilateral internal iliac artery occlusion
  J Endovasc Ther 2014; 21:548-52

Open after 12 mth´s
Downward 6mm branch (first implantation 2009)

Bridging Stent Fluency Plus ® / BeGraft Plus®
M., 57 y.

Occlusion
left iliac axis

Stenosis
right hypogastric

IMA 4,5mm
M, 64 y., TAAA 6,6cm

Occlusion CT
Stenosis SMA
Stenosis Hypogastric
IMA 4mm
M, 60 y., Aorto-iliac Aneurysm 5cm with bilat. occluded Internal Iliac Artery, Collaterals over IMA and Lumbar Artery
Asymptomatic IMA occlusion after 2 years
IMA Branch in BEVAR

Prof. Dr. P.M. Kasprzak
PD Dr. W. Schierling
Prof. Dr. K. Pfister
Department of Vascular Endovascular Surgery
University Hospital Regensburg

Products used: Cook, Bentley, Gore, Maquet, Angiodynamics, Cordis, Vascutek, Abbott, Philips
Results IMA Branch

- Perioperative: no mortality, no complications

- FU 36 mth’s (3-96)

  1. IMA Bridging Stent – asymptomatic occlusion after 24 mth’s

  No aneurysm related mortality

  2. Patients deceased after two and five years
Additional IMA-Branch

• rarely indicated (<1%)
Additional IMA-Branch

- rarely indicated (<1%)
- promising early and mid-term results
Additional IMA-Branch

- rarely indicated (<1%)
- promising early and mid-term results
- additional benefit preventing Type II endoleak in dominant IMA
Inferior Mesenteric Artery Embolization Before Endovascular Aortic Aneurysm Repair Using Amplatzer Vascular Plug Type 4

René Müller-Wille · Wibke Uller · Holger Gößmann · Peter Heiss · Philipp Wiggermann · Marco Dollinger · Piotr Kasprzak · Karin Pfister · Christian Stroszcynski · Walter A. Wohlgemuth

- 72 Pt
- Significantly reduced Type II EL 0/31 vs 11/43; p=0.002