Infrarenal Aortic Graft Replacement Can Be Useful as Part of A Hybrid Approach to Complex Aortic Pathology

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Disclosures
• Speaker/consultant
  W.L. Gore
  Endologix
  Medtronic

Infrarenal Aortic Graft Replacement as a Component of Hybrid Repair of Aortic Pathology

• Provide a suitable and durable distal seal zone for a proximal endograft
• Improve inflow for retrograde grafts for aortic debranching
• Resolve infrarenal occlusive pathology
• Correct infrarenal component of aortic dissection
• Resolve malperfusion

Infrarenal Aortic Replacement as Part of Abdominal Aortic Debranching

Pledgeted proximal anastomosis
Graft size to match available endograft
May require distal tapering

Infrarenal Aortic Graft for De-branching

4 cm mark
Marker clips
Conduit
Tunneled graft
Type B Dissection s/p Endovascular AAA Repair
RLE rest pain, post prandial pain, renal insufficiency

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Type B Dissection s/p Infrarenal replacement and abdominal
debbranching

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Type B Dissection s/p Infrarenal replacement, abdominal
debbranching and proximal and mid endografts – 3 Stages

Type B Dissection with proximal DTA Aneurysm and
renal malperfusion and LLE claudication

Staging reduces risk
Type B Dissection with proximal DTA Aneurysm and renal malperfusion and LLE claudication

False Lumen Intentional Placement (FLIP) for Endovascular Repair of Aortic Dissection
- Is made possible by surgical fenestration and replacement of the infra-renal aorta
- Allows full expansion of endograft
- Improves distal perfusion
- May preserve intercostal / lumbar flow
- Excludes weaker false lumen
- IVUS / Trans esophageal echo is critical

Infrarenal Aortic Repair as Part of A Hybrid Approach to Complex Aortic Pathology
- 21 patients – 14 TAA / 7 TBAD
- 20 Infarenal graft replacement; 1 Infarenal wrap
- TAA – 7 single stage; 7 two stages
- TBAD – 5 malperfusion; 2 aneurysm
- TBAD - Proximal endo repair: 4 two stages; 1 three stages
- TBAD – 2 medical management
- No paraplegia or renal failure
- One chylous ascites resolved with medical management
- No mortality
- F/U 3 months – 9 years –
  Type 2 endoleak from celiac stump embolized
  No ruptures, graft failure or malperfusion

Infrarenal Aortic Repair as Part of A Hybrid Approach to Complex Aortic Pathology
- Surgical replacement of the infrarenal aorta with visceral de-branching in high risk patients with thoracoabdominal aneurysms or aortic dissection can be performed safely to allow endovascular repair of the more proximal process.
- In patients with aortic dissection, surgical fenestration of the infrarenal aorta with graft replacement and retrograde de-branching can be effective in resolving malperfusion at the same time creating a distal landing zone for eventual endovascular repair of the more proximal aortic dissection.

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