Sandwich EVAR to occlude celiac and superior mesenteric artery for infected suprarenal AAA

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I have the following potential conflicts of interest to report:

- [ ] Consulting
- [ ] Employment in industry
- [x] Stockholder of a healthcare company
- [ ] Owner of a healthcare company
- [ ] Other(s)

✓ I do not have any potential conflict of interest
• A 33 year-old-woman presented with Abdominal pain and low-grade fever for 3 days.
• Tenderness over 4 cm palpable pulsatile mass
• WBC $11.9 \times 10^3$ /uL with neutrophilic change (77.8%)
• ESR 90 mm/hr
• C-reactive protein level 8.9 mg/l
• CTA:
  • A saccular aneurysm at the para-visceral aortic region with peri-aortic inflammation
  • Nearly occluded celiac artery and superior mesenteric artery with a large patent inferior mesenteric artery (7.3 mm)
Pre-operative CTA and DSA
IMA with meandering vessel
Management

1. IV Antibiotic: Ceftazidime + Clindamycin
   (cover Samonella + Melioid)

2. Sandwich EVAR
   (concern collateral in retroperitoneal space)
VAMC2828C100TE

Begraft 6x58 both sides
ETTF2828C70EE
Endoleak type 3
VAMC2828C100TE and coil gutter
Post-operative imaging
Pre-op

1 mo

6 mo
WBC scan – no vascular graft infection (1 yr)
Inflammatory marker
Clinical follow up up to 2 years

- No abdominal discomfort
- Gain weight
- Renal function worsening
- Decrease inflammatory marker to normal
- Shrinkage aneurysmal sac to normal
Infected Aortic Aneurysm

• Infected aortoiliac aneurysms are rare
  ➔ 1-2% of all aortic aneurysms
• Asian population
  ➔ 13.6% of cases

• Infected AAA associated morbidity and mortality 21–44%
• The common causative organism: *Salmonella* spp

Treatment options of IAAA

- Aggressive debridement with In situ prosthetic reconstruction + prolonged antibiotic therapy
  (significant number and technically demanding anastomoses to visceral vessels → bypass-related complications; renal failure, intestinal ischemia, and paraplegia)

- Hybrid endovascular repair
  (open renovisceral debranching and endovascular stenting)

- Total endovascular procedure

Endovascular repair of infected suprarenal abdominal aortic aneurysm

- More complex because a concomitant renovisceral debranching
- Few clinical cases of total endovascular repair of infected suprarenal AAA
- A total of 6 cases have been reported in the English literature
- Mortality rate 33%

Conclusion

Total endovascular technique is an option for infected suprarenal AAA

Both celiac and SMA can be occluded without complication in selected case depend on collateral supply
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