Open Repair is the Procedure of Choice for Juxta- and Pararenal AAAs: By What Approach?

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Disclosures
• NONE

Continued Evolution of EVAR
• Suprarenal fixation
• Improved flexibility of components
• Larger diameter grafts for larger necks
• Smaller caliber delivery systems/PEVAR
• Fenestrations, “snorkels”, “chimneys”
• Hybrid procedures: “De-branching”
• Branched grafts

Technical feasibility may not equate to clinical success

Relative Indications for Open Repair in a Fit Patient
• Juxtarenal or Suprarenal extent
• Unfavorable Neck
• Symptomatic paravisceral aortic disease
• Major renal artery arising from AAA
• Severe Aortoiliac Occlusive Disease
• Known or suspected infection
• Connective tissue disease e.g. Marfan
• Inadequate caliber access vessels
• Bilateral hypogastric exclusion in younger pt
• Young, good-risk patient

Paravisceral Aneurysm
**Paravisceral AAA: Treatment Choices**

- Open repair using bevelled anastomosis, Crawford patch and/or individual branch reconstructions
- Retroperitoneal approach vs medial visceral rotation
- Branched graft repair
- Hybrid approach combining debranching and EVAR

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**Paravisceral/Type IV TAAA: Operative Approach**

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**Pararenal AAA**

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**Challenging Neck**

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**BAD IDEA**
**Para- and Juxta-renal AAA: Treatment Choices**

- Open repair using suprarenal or supraceliac clamp
- Retroperitoneal or transperitoneal approaches
- With or without renal artery reconstruction
- Fenestrated EVAR
- EVAR with “snorkel” grafts for one or both renals
- Branched graft repair
- Hybrid approach combining debranching and EVAR

**Para- and Juxta-renal AAA: Operative Approach**

- Retroperitoneal or trans-peritoneal for JRAA depending on aortic anatomy and body habitus
- Suture line at renal arteries versus above
- Severity of posterior aortic plaque
- RP approach more flexible; excise 11th rib
- Retroperitoneal approach preferred for PRAA
- Left kidney up or down
- Limitations with RRA and right iliac disease
- Medial visceral rotation for complex disease not involving the more proximal TA

**J Vasc Surg 2010; 52:760-7**

**J Vasc Surg 2011; 54:952-9**

**J Vasc Surg 2012; 56:2-7**

**Suprarenal Repair: Contemporary Results**

- BWH Series N=171 (1990-2006) elective SRAAA
- 30-day mortality: SR 1.8% IR (N=849) 1.2%
- Postoperative renal impairment
  - SR 17% IR 9.5% (p=0.003)
  - New onset dialysis rare (0.6% SR, 0.8% IR)
  - Postop decline linked to preop RF, renal revasc
  - Five year survival: SR 67% IR 69%

Conclusions

- Contemporary results of open repair for JRAA/PRAA show mortality is comparable to infrarenal AAA, and durability of repair is excellent. However postoperative morbidity > open infrarenal repair.
- Increased age and baseline renal impairment are important risk factors for postoperative mortality.
- Early results of fenestrated and snorkel EVAR suggest low mortality but substantial rates of endoleak and reintervention; learning curve is significant and durability is unknown.
- Younger (<75), average risk patients with JRAA/PRAA should be considered for open repair at experienced aortic centers as the current "gold standard" treatment.