Severely Angled Aortic Necks May Remodel Beneficially After EVAR, Minimizing The Need For Open Repair. No They Do Not: Minilap Open Repair Is Usually A Better Choice Than Off-Label Use Of EVAR Devices For AAAs

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A meta-analysis of outcomes of endovascular abdominal aortic aneurysm repair in patients with hostile and friendly neck anatomy

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EVAR in Pts with hostile neck gives suboptimal outcomes


1559 pts (hostile anatomy 714; friendly anatomy 845)

EVAR in Pts with hostile neck anatomy (HNA) vs. those with favorable neck anatomy (FNA).

Stather PW(1), Wild JB, Sayers RD, Bown MJ, Choke E.

systematic review and meta-analysis of outcomes

Following endovascular aneurysm repair (EVAR) in patients with hostile neck anatomy (HNA) vs. those with favorable neck anatomy (FNA).

8620 patients in the FNA group
3039 patients in the HNA group.

Mean follow-up ranged from 9 to 49 months.

significant increase in 30-day mortality (2.4% FNA vs. 3.5% HNA; p<0.01)
intraoperative adjuncts (8.8% FNA vs. 15.4% HNA; p=0.01), and
30-day migration (0.9% FNA vs. 1.6% HNA; p=0.009) in patients with HNA.

87 physicians in 21 different centers performed 1653 elective EVARs for AAAs.

Of the total EVAR cohort, 309 (19%) were performed in patients deemed unfit for oAAA by the operating surgeon, whereas the remaining 81% were deemed eligible to undergo either oAAA or EVAR.

Designation as “Unfit for Open Repair” Is Associated With Poor Outcomes After Endovascular Aortic Aneurysm Repair

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Long-term survival was worse in patients deemed unfit for oAAA.

Pts with AAAs <6.5 cm, unable to tolerate oAAA may not benefit from EVAR unless their risk of AAA rupture is very high.
Outcomes After Open Repair for Ruptured Abdominal Aortic Aneurysms in Patients with Friendly Versus Hostile Aortoiliac Anatomy


If the aortoiliac anatomy is unsuitable for EVAR ("hostile anatomy"), open repair (OR) is the next option.

279 pts between 2004 and 2011.
Aortoiliac anatomy was friendly in 71 pts and hostile in 208 pts

Death rate was 38% in pts with friendly anatomy and 30% in pts with hostile anatomy (p = .23).

The death rate after open repair for an RAAA is comparable in patients with friendly and hostile aortoiliac anatomy.

SHORT and ANGULATED NECK, CIRCUMFERENTIAL NECK THROMBUS, ILIAC ANEURYSMS AND STENOSIS

…are not a contraindication to mini Open Repair

Angle > 60°
Thrombosis > 50%
Calcifications > 50%

Neck angulation is always anterior or anterolateral….favors open clamping

EXTERNALLY SUPPORTED PROXIMAL ANASTOMOSIS

Surgery for aortic aneurysms: how to reduce tension on the anastomosis
Spinelli F, Benedetto F, Spinelli D, Stilo F, Lentini S.
From January 2005 to December 2012 234 3A

Inclusion criteria for MINI were increased surgical risk, anatomical limits for EVAR.

MINI: 72 aorto-aortic grafts and 49 aorto-biiliac grafts.

Early mortality was 1.6% vs 3.5% (P > 0.5); complications were 12.2% vs 26.6% (P > 0.05); mean (SD) time to solid diet was 2.1 vs 3.5 (P < 0.5); and mean (SD) length of hospital stay was 4.9 vs 7.35 days (P > 0.05), in the MINI and OPEN groups, respectively.

Conclusions

- EVAR in Hostile Necks is only justified in poor risk pts with impending rupture

- Hostile necks for EVAR are favorable necks for MINI OR

- Hi quality long term results of Open repair have been achieved by MINI in ASA III and ASA IV pts

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