The Value of Open Surgery in Era of EVAR

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Disclosures

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No Conflict of Interest to report

Open Surgery

Type

Vascular	Primary Conversion	or Secondary Conversion
	Other	
Non Vascular	Gastrointestinal	

Timing

Preop	Not suitable for EVAR	Open Repair
Intra op	Primary	
Post op	Secondary	
	Early	<30 days
	Late	<30 days

Intra operative

Access
- Femoral Cutdown
- Conduit

Procedural Complications
- Rupture Aorta, Iliac
- Avulsion
- Mis deployment
- Graft thrombosis
- Femoral occlusion, embolus
- Primary Open Conversion

Post operative Early <30 D

- Non Vascular
  - Cholecystectomy
  - Large bowel surgery
  - Upper GI surgery eg bleed
- Vascular
  - Thromboendarterectomy
  - Early Secondary Open Conversion

Post Operative Late >30 D

Indications Open Conversion

Failed EVAR and / or Progressive Aneurysmal disease

With Failed endovascular interventions

Continued expansion>5 mm/yr or Size >6 cm on minor axis

Endoleaks type I to 5

Migration Endoleak, Graft Kinking

Infection May have an AEFistula

Thrombosis

Rupture

Multiple reasons Present in more than 50%

Late Open Conversion

>30 d

Rates 3.7% (0.9 to22.8%)

Number of OC increasing

Can occur anytime 1/3 occur after 5 yr

Decreasing Interval to Open Conversion ? IFU

Increasing and wider number of EVARs

Increasing No of EVARs outside of IFU

High reintervention rates 28% at 8 years in EVAR 1

Longer follow-up

Increasing number of young patients (50 and 64 yr)

Open Conversion

Types

- Elective
- Emergency

Unique Technical Challenges

Specific Operative Management

Procedures

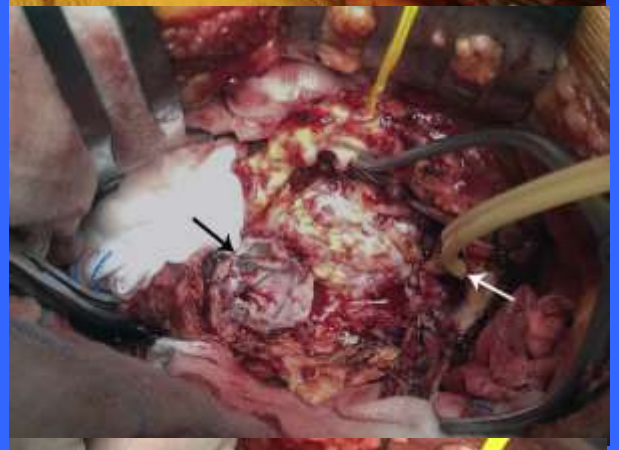
Depends on indication

Graft Explantation with in situ graft reconstruction

- Neo Neck Technique

Graft Preservation

- Banding aortic or iliac
- Ligate branches and evacuate cavity



Outcome of Open Conversion

Overall Mortality	17 to 25% Contemporary Series	
Elective Mortality	0-10%	
Emergency Mortality	Improving	
Expansion		22%
Rupture, Infection		20-67%
Morbidity	Very High up to 40% renal, resp, cardiac,bowel	
Reinforces	Close and life long surveillance Timely and planned OC	
Ideal outcome	Elective OC Infrarenal clamping Preservation of the endograft	

Conclusions

Open Conversion is Increasing

Identifying patients who are likely to develop late complications requiring OC is difficult

Followup is essential and long term

Compliance is a problem

Discuss Followup with patient as part of the surgery

Renal Patients alternative imaging

Significant Mortality and Morbidity Improving

Planned OC better outcome than emergency

Specific technique Infrarenal clamping, Preservation

There will always be a need for open surgery