

Ruptured Abdominal Aortic Aneurysm

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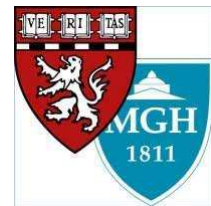
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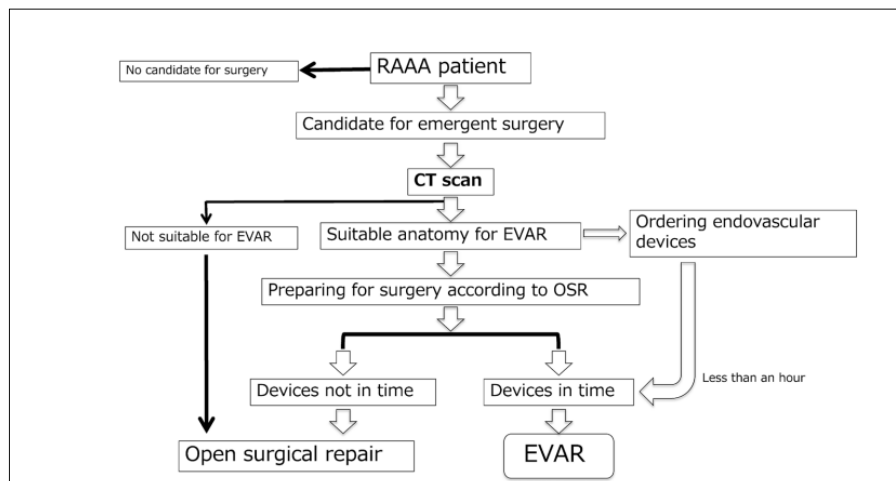
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Introduction

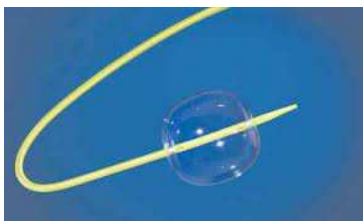
- RAAA is a catastrophic emergency
- Significant morbidity and mortality, with untreated mortality approaching 100%
- Most rupture into RP cavity
 - Pain (abdominal and back)
 - Hypotension
 - Pulsatile abdominal mass



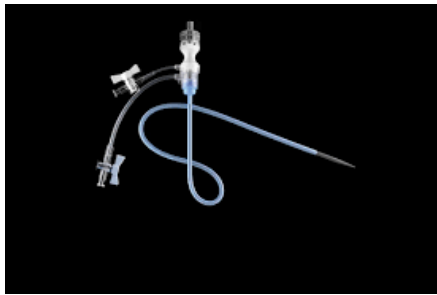


Step #1 – ER Agenda

- Resuscitate (ABC)
 - Blood Products 1:1:1 Ratio
 - Permissive Hypotension (<90mmhg)
 - Intubate if necessary for airway protection
- Answer the 3 major questions
 - *Where* is the rupture?
 - Is this pt an *endo candidate*? – unstable? Abdominal US? CALL THE REP FOR DEVICES NOW IF POSSIBILITY
 - Is this patient *salvageable*? CPR ongoing?

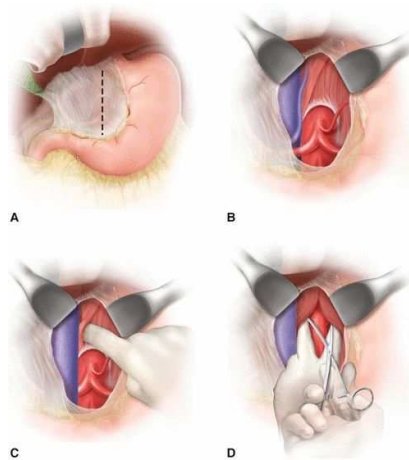


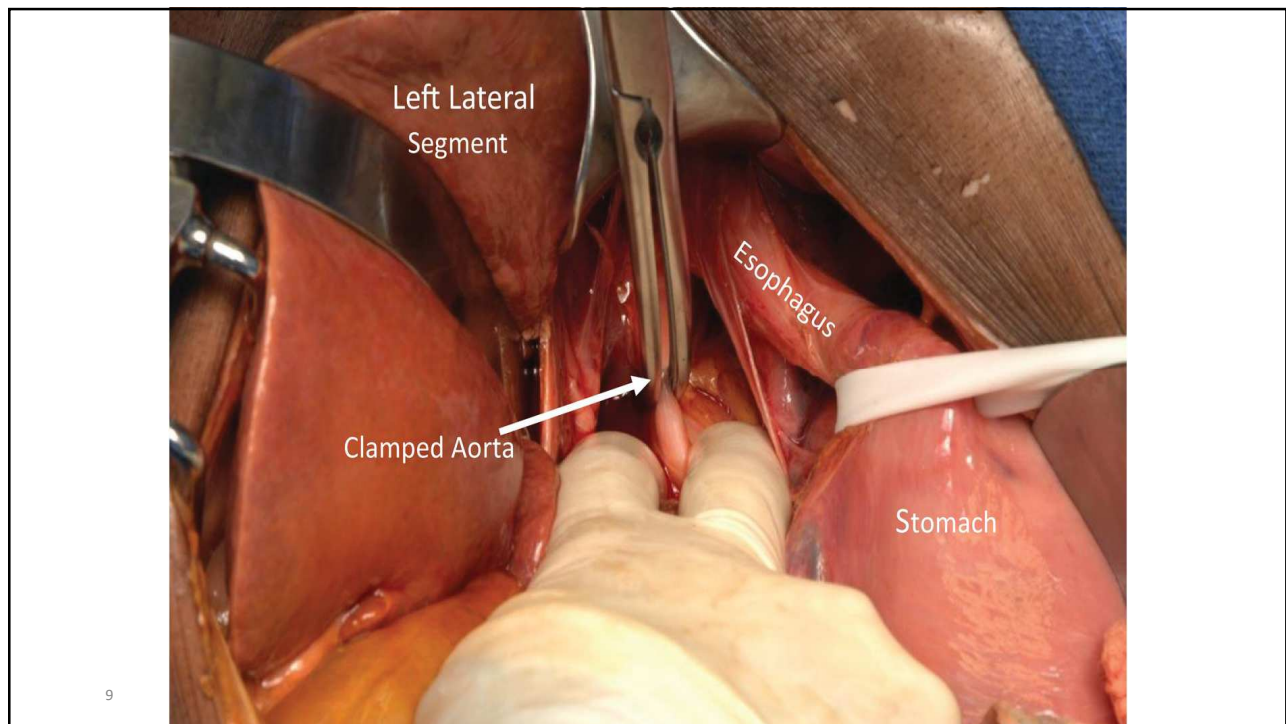
Unstable, no time for CT...to OR



Proximal Control - Open

- Supraceliac
 - RP
- Transperitoneal*
 - (especially if no CT!)
 - Divide right crus of the diaphragm through the lesser omentum

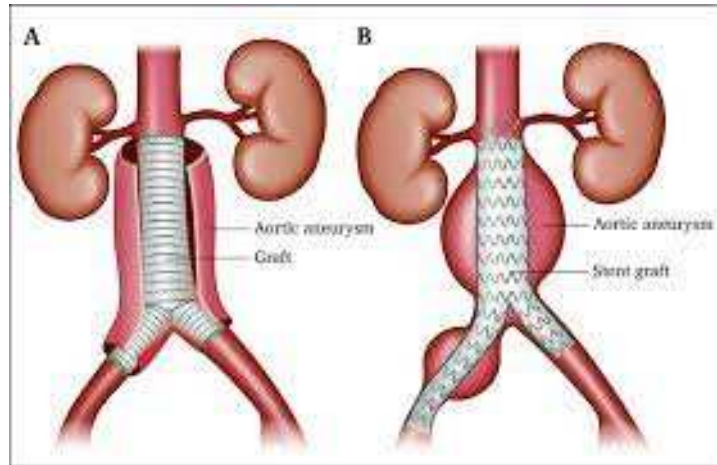




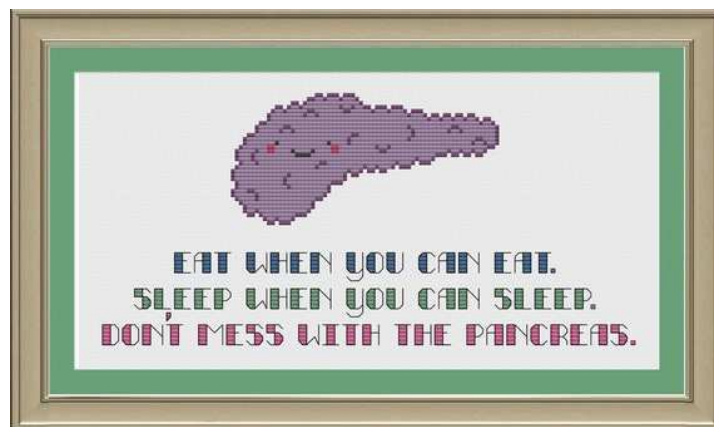
Distal Control

- Isolate and control iliac arteries
- Ureters should be identified as they cross the iliac arteries at the pelvic brim
 - typically cross distal 1/3 of CIA from lateral to media
- *Excessive dissection along the posterolateral aspect of the aorta is unnecessary*
- *Move your proximal clamp down once you identify perforation*

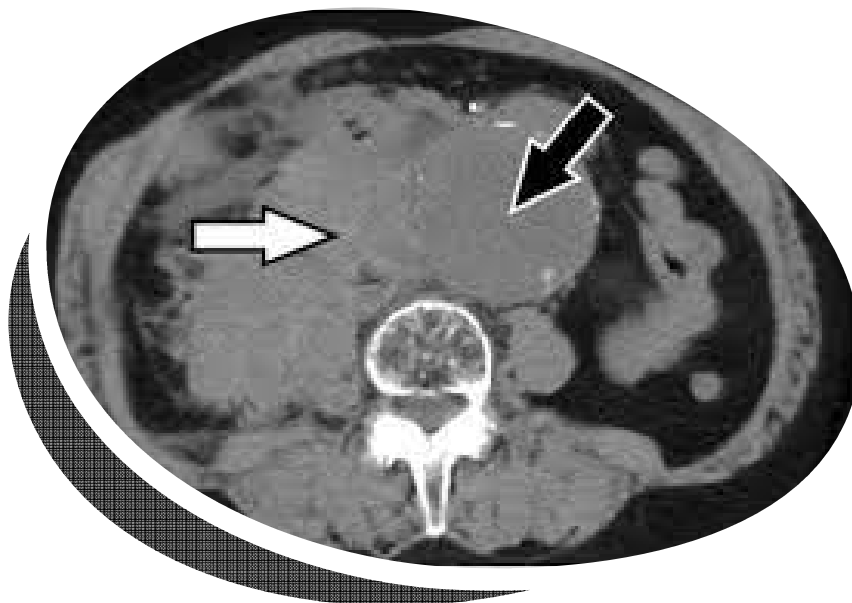
Once you
have
control...



Fake news...



VEINS! VEINS! VEINS!





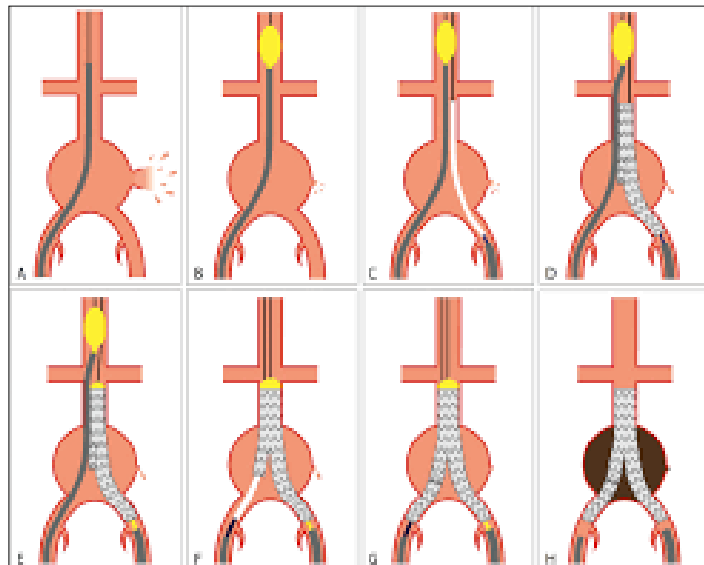
Who is an endo candidate?

Depends on your
location and skill

Thoracic rupture
– TEVAR

Visceral Rupture
– PMEG, Snorkel,
Chimney

- DO NOT GO TO SLEEP
- Bilateral 16fr sheaths (perc – cutdown later if need be)
- Devices (diameters AND length)
- Power Injector
- Cuff sizes
- Arm Access for the gate?
Conversion to Aorto-Uni/fem-fem?
- Steps: *Deploy whole main body, switch sides with Coda*
- Laparotomy



ACS

- Risk factors: ≥ 5 L perioperative bleeding, coagulation disorder, persistent hypotension, preoperative loss of consciousness, requirement for an aortic balloon to maintain blood pressure, and aorto-uni-iliac
- Laparotomy itself has low morbidity
- Delay to perform decompression laparotomy reportedly increases mortality rate to 70%
- Monitor urine output and bladder pressures post op
 - Following RAAA surgery, intraperitoneal pressure is expected to increase to approximately 12 mmHg
 - If the pressure exceeds 30 mmHg, multiple organ failure may occur

HOW
do I
Decide??

So... EVAR or
Open?

Outcome

- Consistent factors predictive of poor prognosis include
 - advanced age (≥ 76 years)
 - impaired renal function
 - loss of consciousness
 - Hypotension
 - Anemia
 - Ongoing CPR

Conclusion

- RAAA is a challenging situation
- Prompt action through protocolized pathways save lives
- Get control, get a plan, execute