USE OF STENT GRAFTS IN TRAUMA
Are we using too many?

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STENT GRAFTS

TRAUMA CONDITIONS

Aortic Transection

Penetrating wound to a major blood artery:

Carotid

Subclavian

EVIDENCE

- Peripheral arterial trauma

  (Class IIb recommendation/ Level C evidence)

TRAUMA
Endemic to SA

- Number of request have increased exponentially
- Numbers implanted have increased
- “See a lesion, insert a stent graft”
- Technical expertise improved

WHAT IS NEW ?

- Stent Grafts have improved
- Graft selection has improved
- Limitations of the strategy have been realised
- Better outcomes in high volume centres

WHAT IS CONTROVERSIAL?

- Cost efficacy
- Who should be doing the procedure in SA?
- Follow up and monitoring
- Is the concept of damage control feasible?

CAROTID ARTERY

PROBLEMS

- Profile
- Edge Effect
- “Scallops”
- Extraneous forces
- Arterial Stiffening

OUTCOMES

100% Occlusion (Time ?)

- Asymptomatic
- TIA
- Stroke
- Death
- Damage control does not apply!!

SUBCLAVIAN ARTERY

- Similar adverse circumstances
- Thoracic outlet forces

<u>OUTCOMES</u>

- Poor patency
- Better collateralization

“Recommendations”

If the patients condition allows and if surgically accessible then open repair.

Thoracic Transections

- Treatment of choice

Less invasive , improved grafts and technique

Better evidence

Seems to be durable

Patient selection and timing improved

COMPLICATIONS

- Iliac artery rupture
- Carotid occlusion
- Oversizing and graft collapse
- Subclavian artery coverage
- Failure to monitor life long

SUMMARY

- Consider peripheral stent grafts when you can justify the risk of immediate mortality with the risk of intermediate term thromboembolic phenomena
- Retain operative skills : Gold standard in the periphery when possible