TAAA – Extent 4
Prevention, Detection and Treatment of Paraplegia

Background - paraplegia from spinal cord ischaemia

- Lumbar arteries arising from the aneurysm contribute to the blood supply of the anterior spinal artery and are tied off during surgery so that the blood supply to the anterior part of the spinal cord may be precarious after surgery.
- Paraplegia as a result of spinal cord ischaemia occurs in approximately 2 % of patients having Extent 4 TAAA repair.
- Many of these cases of paraplegia occur post-operatively, often in association with an episode of hypotension.
- After TAAA repair spinal cord ischaemia is a much more common cause of paraplegia than is epidural haematoma.
- Paraplegia is often reversible if treated urgently by raising the blood pressure and inserting a CSF drain in order to improve spinal cord perfusion pressure.

Prevention of paraplegia

- maintain MAP > limit set – usually 70 mm Hg and avoid episodes of marked hypotension

Detection of paraplegia.

- assess and chart movements in each leg hourly using the scale below
- if leg weakness develops inform the vascular anaesthetist and surgeon immediately
- assessment and charting of leg movements should continue throughout the hospital admission. On the vascular surgery ward the leg movements should be assessed and charted at the same time as the other observations

Treatment of paraplegia.

- immediately inform vascular anaesthetist and surgeon so that urgent insertion of a CSF drain can be considered
- raise MAP
- switch off epidural infusion

Leg movement score – based on epidural chart score to avoid need for two separate scores	
Score	Description
0	Full power
1	Weak but able to raise legs
2	Able to bend knees but not raise legs
3	Minimal movement
4	Complete paralysis

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