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Post-operative Epidural Haematoma

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Objectives

- Incidence and risk factors
 - Recognition
 - Confirmation
 - Management
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Litigation

- Spinal surgery is highly litigious
 - Post-operative haematoma is a common cause
 - Post-operative MRI will not provide 'reassurance'
 - Prompt assessment and meticulous note keeping essential!
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Borth, Lake Garda



Demographics

- Symptomatic haematoma requiring surgical intervention
 - 0.1-1%
- Asymptomatic haematoma
 - 33-58%
- Presentation may be delayed
 - (7 in 4000 cases after 3 days, average 5.3 days)

Risk Factors

■ Patient

- Advanced age
- Hypertension
- Obesity
- Coagulopathy

■ Procedure

- Multilevel procedures
- Revision surgery

■ Pharmacy

- Anticoagulation
- NSAID's

■ Symptomatic haematoma

■ Cervical 0.32%

■ Thoracic 0.84%

■ Lumbar 0.63%

■ Delayed onset 0.16%

■ MIS - 5 times higher

Borth, Lake Garda



Surgical drain!

- Routine use of wound drain does not prevent epidural haematoma in non-complex lumbar surgery
 - Nor does absence of a drain reduce infection risk
 - No difference between wide and narrow bore drains (2.8mm vs. 1.6mm)
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Recognition

■ Symptoms

- Worsening pain
- Radiculopathy
- Weakness
- Sensory disturbance
- Sphincter dysfunction

■ Clinical Signs

- Progressive motor deficit
- Sensory deficit
- Retention (bladder scan)
- Perianal sensory disturbance
- Lax sphincter tone

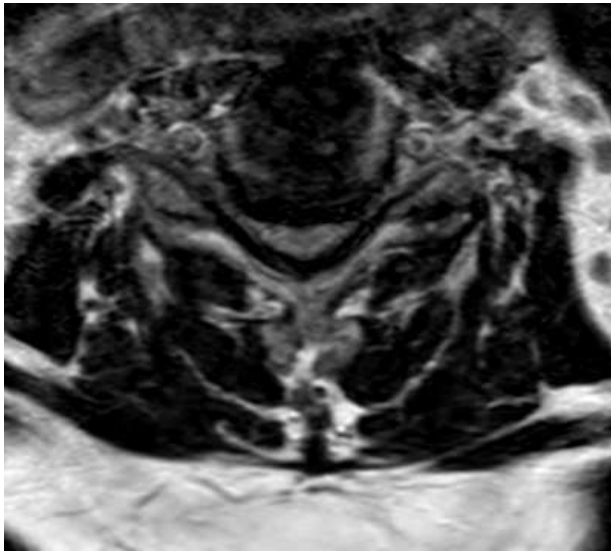
Saariselka, Lake Garda



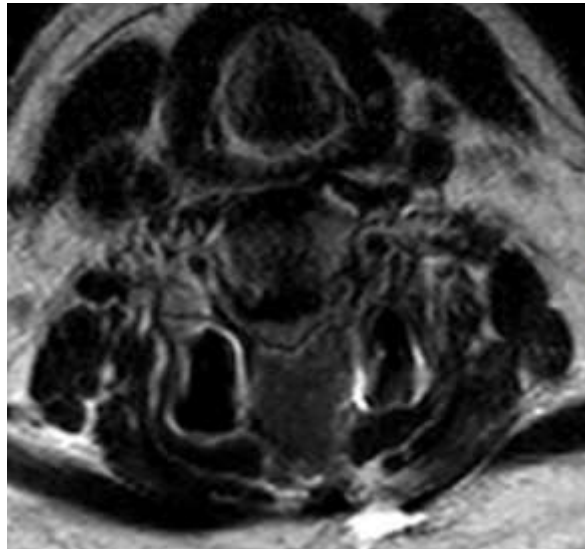
MRI

- Immediate MRI
- Caution - high incidence of asymptomatic haematoma

Cervical Decompression



Pre-operative

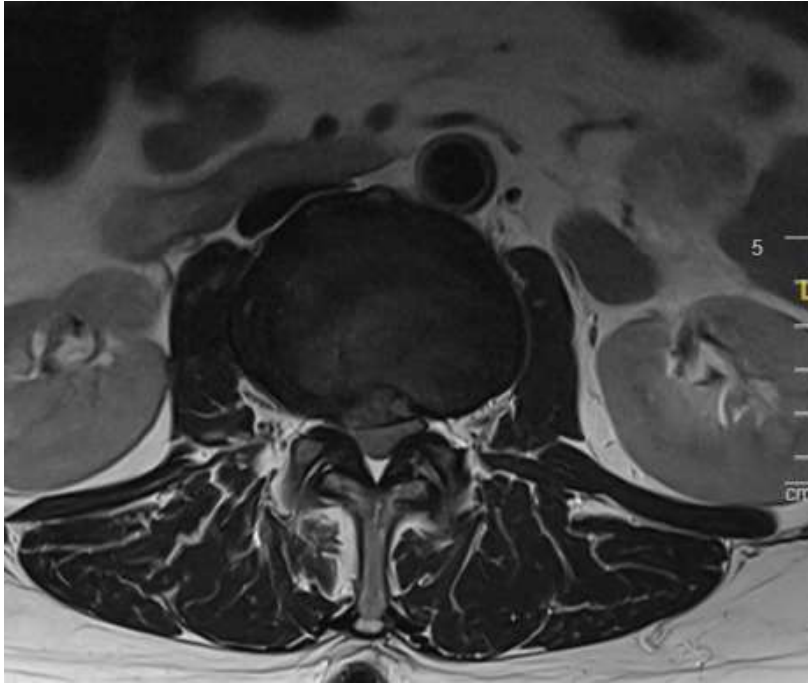


Post-operative



Sudden loss of motor function day 5 post-op,
Spontaneous resolution

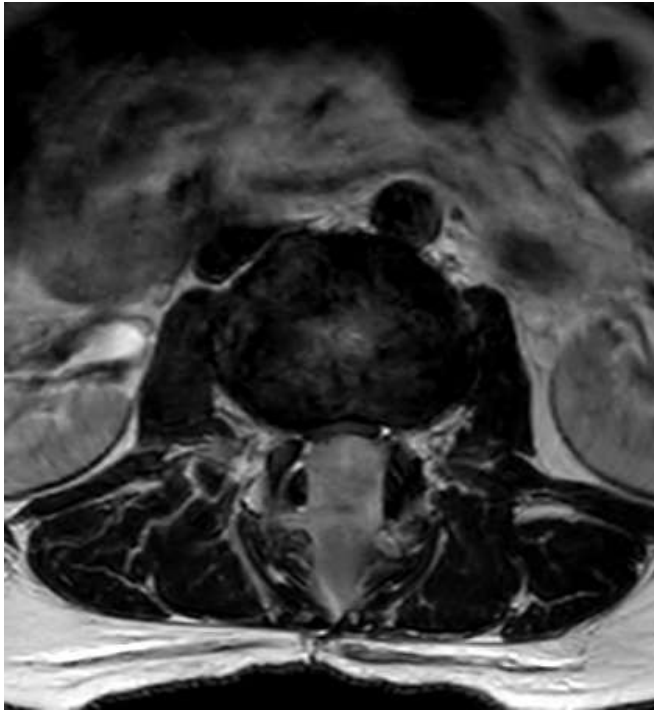
Lumbar Decompression



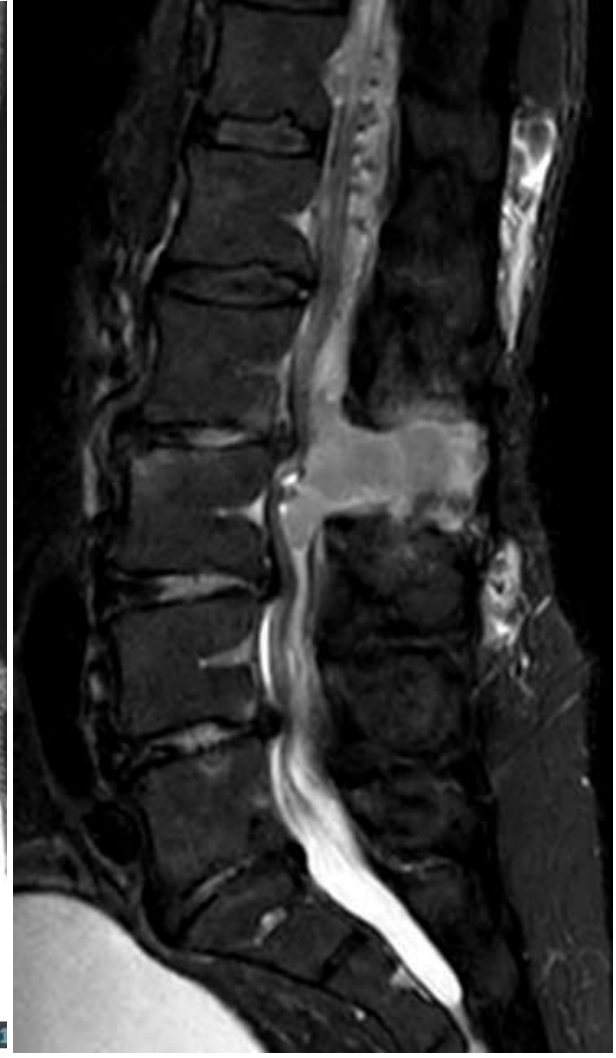
62, spinal claudication



Lumbar Decompression



Leg pain and deficit
post-op, rapid
spontaneous recovery.
Legs still heavy,
evacuation day 1



Management

- Urgent surgical decompression
 - There is no value in delay after recognition!
 - Aim for within 6 hours
 - If acute imaging may not be required
 - Check clotting
 - Double check medication
 - Post-operative surgical drain
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Is Imaging Necessary?

- Alternative diagnosis - ischaemic event
- Medicolegal implications - phone a friend

"Magnetic resonance imaging is the mainstay of diagnostic imaging necessary to confirm the diagnosis, but if not acutely available, an immediate return to the operative theatre for exploration without advanced imaging is justified"

Questions



References

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