WHEN TO REFER TO A NEURO/ SPINAL SURGEON

SHAWN AGIUS

CONSULTANT NEURO AND SPINAL SURGEON

MATER DEI HOSPITAL

shawn.b.agius@gov.mt

DISCLAIMER

- Presentation is meant as a guidance
- Does not replace clinical judgement and assessment
- Not all cases are straight forward

SUMMARY

Cervical Myelopathy

- Stable – should be assessed
- Progressive – referred urgently

Neurogenic claudication

- Numbness or pain on exertion/ standing
- Do well with surgery

Radiculopathy

- Majority resolve
- Surgery: recurrent, long standing, weakness

SUMMARY

Cranial cases

- Headaches + Neurology
- Can present with no headaches
- Shunts + headaches: urgent referral

Carpal Tunnel Syndrome

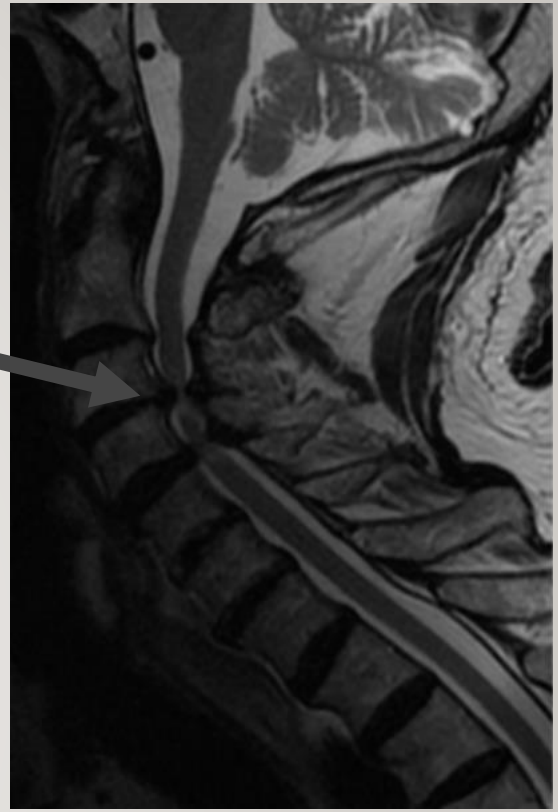
- Thenar eminence atrophy – should be considered for surgery

NEUROSURGERY

- Spine – Neoplastic and Degenerative
- Brain – Traumatic, Neoplastic and Others
- Carpal Tunnel Syndrome

MYELOPATHY SPINAL CORD DAMAGE

- Degenerative Changes damaging the Spinal Cord



- Damage often irreversible
- Consider early referral

Symptoms:

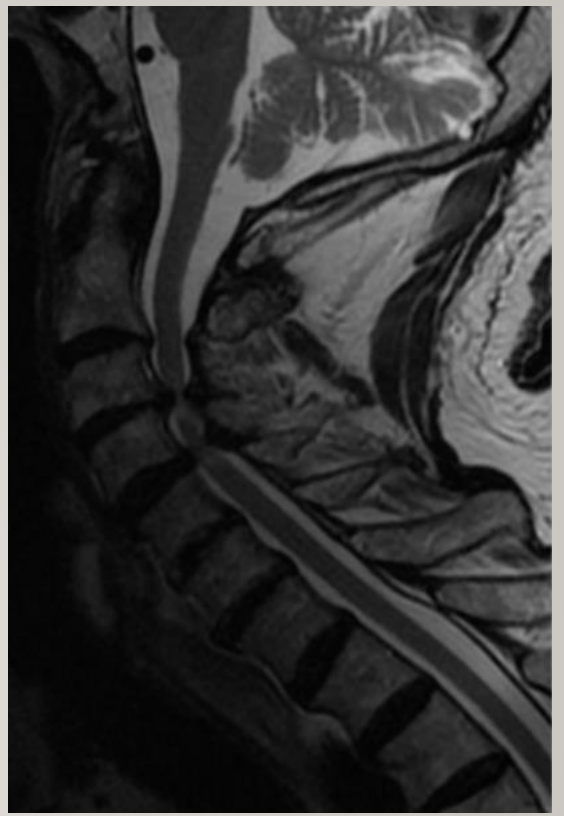
- Loss of dexterity
  - Upper limbs – dropping objects
  - Lower limbs – stumbling
  - Urinary urgency
- Pain may be absent

MYELOPATHY SPINAL CORD DAMAGE

Grading and Progression

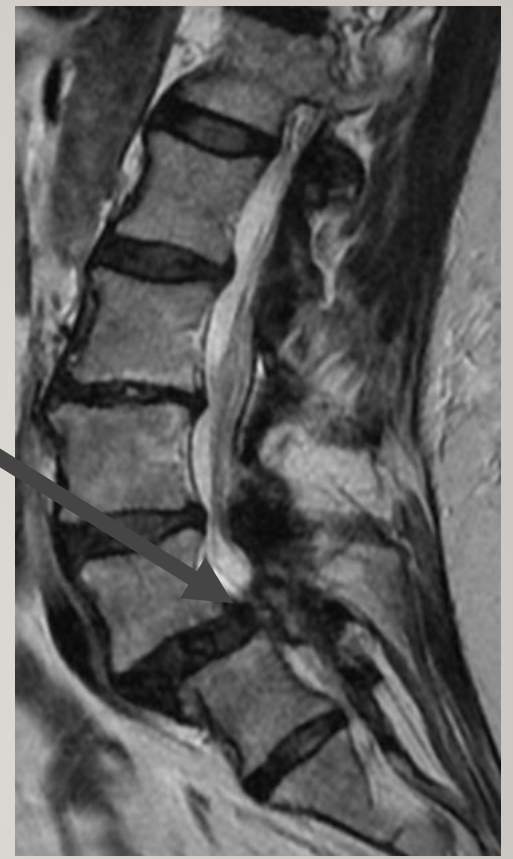
JOA Scale

Motor dysfunction score of the upper extremity
0—Inability to move hands
1—Inability to eat with a spoon, but able to move hands
2 Inability to button shirt, but able to eat with a spoon
3—Able to button shirt with great difficulty
4—Able to button shirt with slight difficulty
5—No dysfunction
Motor dysfunction score of the lower extremity
0—Complete loss of motor and sensory function
1—Sensory preservation without ability to move legs
2—Able to move legs, but unable to walk
3—Able to walk on flat floor with a walking aid
4—Able to walk up and/or down stairs with hand rail
5—Moderate-to-significant lack of stability, but able to walk up and/or down stairs without hand rail
6—Mild lack of stability but walks with smooth reciprocation unaided
7—No dysfunction
Sensory dysfunction score of the upper extremities
0 Complete loss of hand sensation
1—Severe sensory loss or pain
2—Mild sensory loss
3 No sensory loss
Sphincter dysfunction score
0—Inability to micturate voluntarily
1—Marked difficulty with micturation
2—Mild-to-moderate difficulty with micturation
3—Normal micturation



NEUROGENIC CLAUDICATION

Degenerative Changes squeezing nerve roots



- Walking short distance/ Standing causes
  - Leg Pain or Buttocks Pain

  or
  - Heavy tiredness

  Or
  - Pins and Needles

  Or
  - Poor leg control/ balance (‘unable to feel where the legs are’)
- Progressive Weakness
- Urinary urgency - ?contributing

- Most improve significantly with Surgery

RADICULOPATHY

- Lumbar – back pain going down the leg/s
- Cervical – neck pain going down the arm/s

- >90% resolve spontaneously within weeks (lumbar); months (cervical)
- **Weakness** should be assessed and considered for surgery
- Several years gradually **worsening/ recurrent**
  - Unlikely to resolve without surgery

RED FLAGS

- Urinary symptoms –

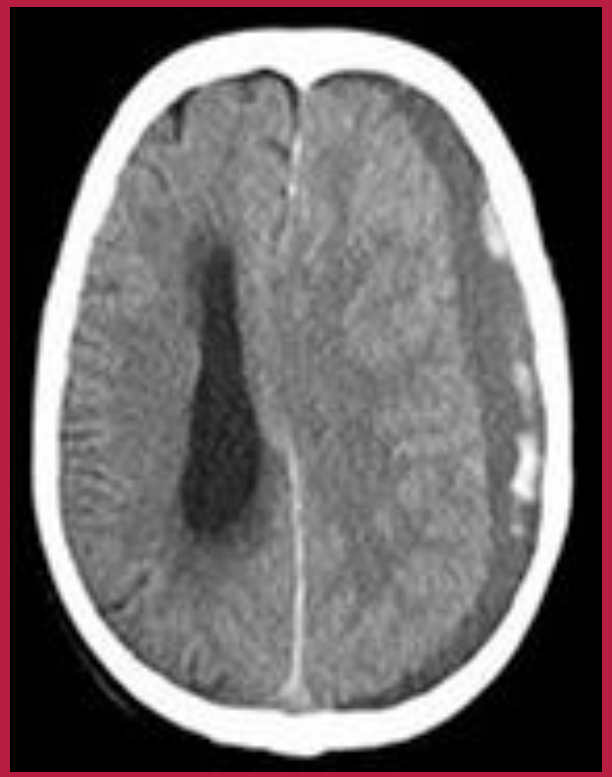
post voiding bladder scan if available

  - Consider differential of urinary symptoms
- Saddle anaesthesia
- Bilateral symptoms
- Fever
- History of Cancer
- IVDU

IMPORTANT FEATURES

- Failure to resolve
- Progression of symptoms

Chronic Subdural Haematoma

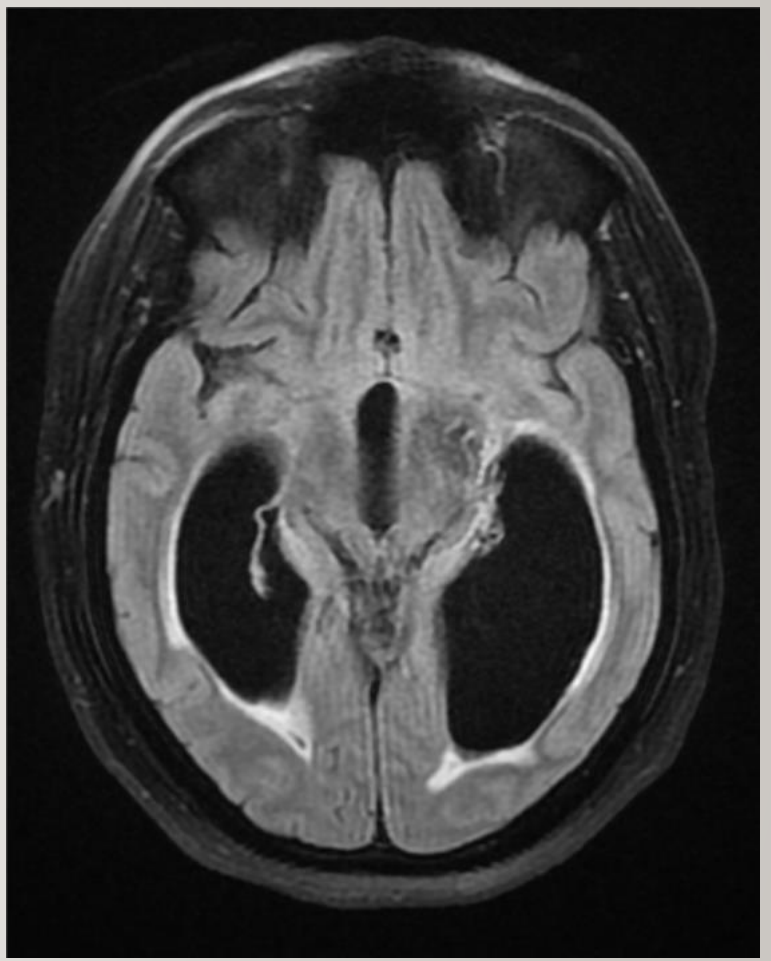


- Commonest in Elderly
  - antiplatelets and anticoagulants
- Trauma
  - Can be minor
  - Some have no history of Trauma
- Acute blood is Jelly-like
  - Liquefies within a few days
  - Absorbs fluid by osmosis
  - Increases in volume
- Symptoms:
  - Headache
  - Hemiplegia
  - Worse gait
  - Tired
  - Speech disturbance
- Treatment: Surgery – can be done in over 80s

VENTRICULO -PERITONEAL

SHUNT

- For hydrocephalus treatment
- Shunt:
  - Pipe from ventricle
  - To Valve
  - To pipe to peritoneum
- Can block/ break (rare)
  - New headaches
  - Drowsiness – urgent A&E
- Gradual block
  - Tired
  - Headaches – less severe
  - Memory
  - Less ‘mentally sharp’



- Some patients – perfectly working shunt – still have headaches

IMPORTANT SIGNS

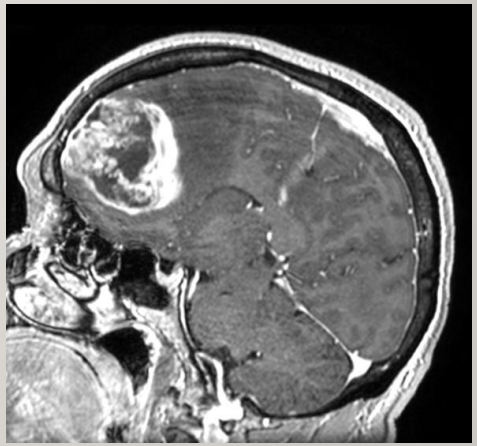
- Rhomberg's https://www.youtube.com/watch?v=XVGx_NZ1pJQ
- Hyperreflexia
- Hoffmann's
- Clonus
- Plantars/ Babinski

https://www.youtube.com/watch?v=ezZQPVJnJhs – often more subtle in practice

- Compare with previous
- Progression

CRANIAL

- Symptoms of raised intracranial pressure
  - Headaches – especially new onset
    - Worse in the morning
    - With Nausea/ Vomiting
    - With Neurology including change in personality
    - History of Malignancy
- Neurology
  - Weakness – facial/ upper/ lower limbs
  - Diplopia
  - Cognition



CARPAL TUNNEL SYNDROME

- Urgent –Axonal Loss on Nerve Conduction Studies
  - Clinical
    - wasting of thenar eminence
    - Wasting of 1st dorsal interosseous
    - Function – buttons, cutlery

- Elective – pain only

SUMMARY

Cervical Myelopathy

- Stable – should be assessed
- Progressive – referred urgently

Neurogenic claudication

- Numbness or pain on exertion/ standing
- Do well with surgery

Radiculopathy

- Majority resolve
- Surgery: recurrent, long standing, weakness

SUMMARY

Cranial cases

- Headaches + Neurology
- Can present with no headaches
- Shunts + headaches: urgent referral

Carpal Tunnel Syndrome

- Thenar eminence atrophy – should be considered for surgery

THANK YOU

shawn.b.agius@gov.mt