

Cauda Equina Syndrome *Revisited*

Causes, Symptoms & Diagnosis

Q&A

Webinar for GPs, 7 August 2024

8am – 8.30am



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ORTHOPAEDIC SPINE SURGEON



- Spinal surgeon with over 20 years' experience
- Head of Department of Orthopaedics and Supervisor of Training for Orthopaedic Trainees, Prince of Wales Hospital
- Conjoint Senior Lecturer at the University of New South Wales
- Honorary Senior Scientist at Neuroscience Research Australia (NeuRA) and a member of Spinal PFET.

Dedicated to lifelong learning and sharing my expertise with others, I attend spinal conferences worldwide and regularly consult with colleagues about successful treatments.

If you have any questions about a patient, please feel free to call me on 02 9650 4893. I will return your call and discuss how we can help.

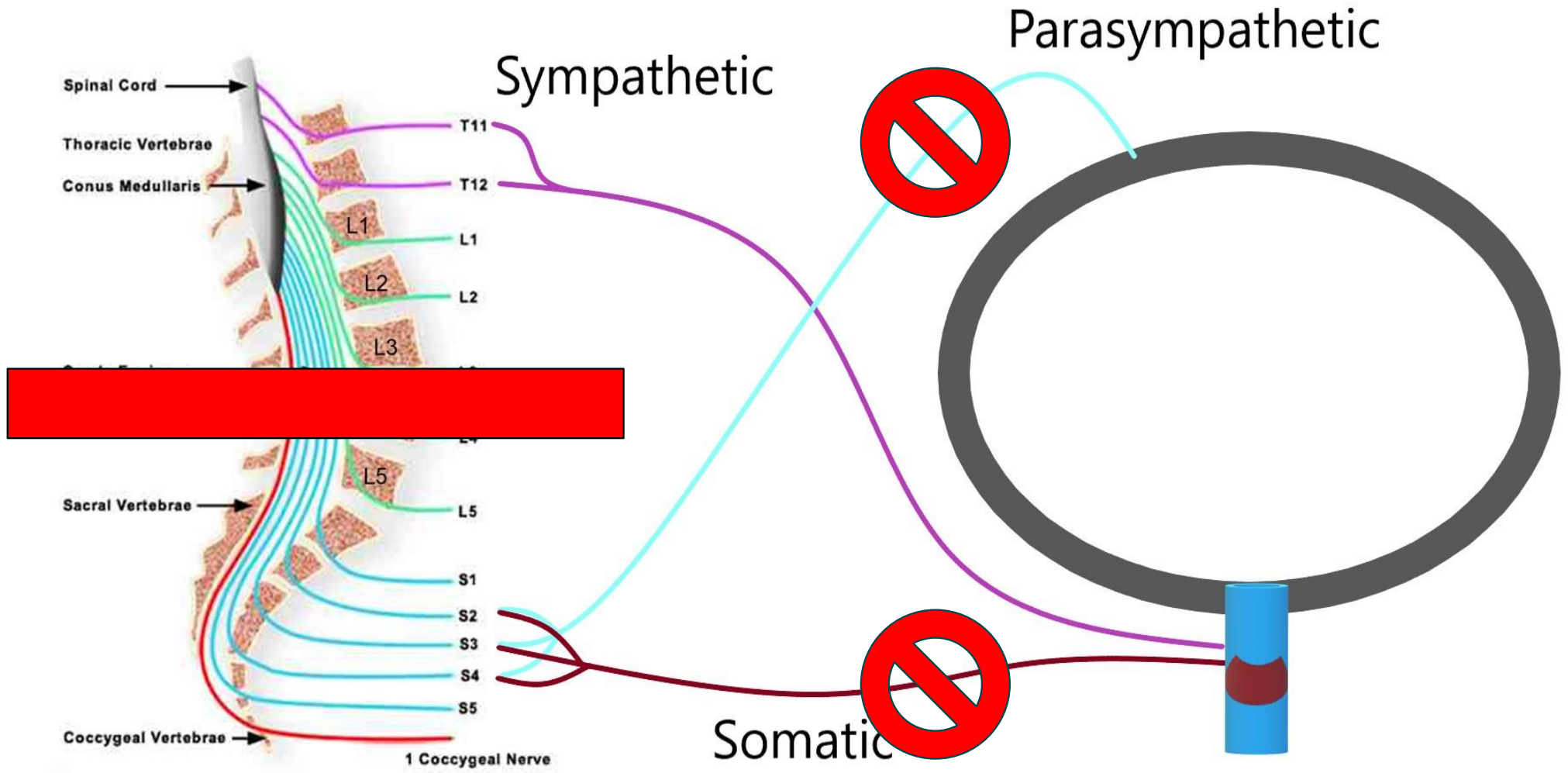
Cauda equina syndrome (CES)

- Rare but devastating
- What are the early warning signs?
- What should be done?
- *All is not what it seems!*

Cardinal features of acute CES

- **Urinary retention**
 - Detrusor paralysis
 - **NOT incontinence in the early phase**
- Loss of perianal sensation (saddle numbness)
- Variable loss of lower limb power and sensation

- Associated with compromise of lumbar spinal canal



Clinical features

Back pain	94% (acute 69%)
Difficulty passing urine	90%
Perianal numbness	82%
Sciatica	81% (bilateral 35%)
Loss of perineal pin prick	75%
Loss of urinary sensation	64%
Urinary incontinence	48%
Absent anal tone	48%
Painful urinary retention	16%
Faecal incontinence	12%

Incidence is rare

- General population 0.3 to 7 per 100,000 person years
- Presenting with back pain to GP 0.08%
- Presenting with back pain to ED 0.27%
- 1-3% of all lumbar disc herniations

Demographics

- M : F 58 : 42%
- Age: 42 years (22 to 76 years)
- Can happen to anyone

Progressive syndrome

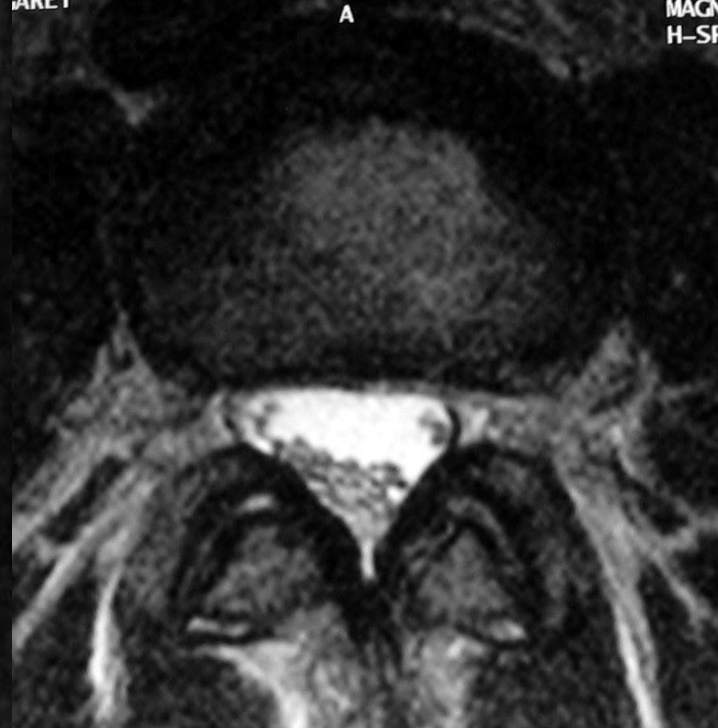
Early	Evolving	Late
Strain to pass urine	Painless urinary retention	Overflow urinary incontinence
Partial perianal anaesthesia	Complete perineal anaesthesia	
Reduced anal contraction		Faecal incontinence



26% in 24 hours

True Red Flags for early CES

- Difficulties urinating
 - Reduced perianal sensation
 - Bilateral lower limb radiculopathy
- MRI will be positive **14 – 33%**



What to do

- Anal examination
 - Numbness
 - Anal contraction
- Lower limb strength and numbness
- Is the bladder full?
 - Can they empty the bladder?
 - Bladder ultrasound

Post-void residual

	Sensitivity	Specificity	PPV	NPV
Perianal numbness	82%	42%	25%	92%
Post-void residual volume of urine on ultrasound >200mL	94%	72%	43%	98%

Surgical emergency 1/3

- Overall outcomes worse if surgery > 48 hours
- Immediate referral to emergency department

*All is not what
it seems!*



- Even with carefully selected cases
- MRI shows cauda equina compression in only 14 – 33%
- What about the 86 to 67% of 'clear' scans?

Clinical confounders 1/3

1. Spinal cord – uncommon but should be checked with MRI
2. Disc herniation, back pain and sciatica
 - Pain alone disturbs bladder function
3. Medications
 - Opioids
 - Gabapentin, pregabalin
 - Anticholinergics, TCA
4. Chronic constipation in the elderly



Functional neurological disorders

1/3

- Approximately 30%
- Have all the hallmarks of CES
- MRI scans of entire spine normal
- History of anxiety, stress, previous functional issues
- Chronic disability and social isolation
- Need specialist multi-disciplinary management



Functional Neurological Disorders Clinic - POWH



Mindgardens Functional Neurological Disorders Clinic

- Diagnosis by consultant neurologist
- <https://www.mindgardens.org.au/what-we-do/research-project/mindgardens-functional-neurological-disorders-clinic/>

Q & A

- A **recording** of the webinar will be available on my website
- **Further resources for GPs** are available at <https://spinalsurgeonsydney.com.au/for-referrers>
- **To receive future resources via email**, send your name and email address to info@powspine.com.au

If you have any questions about a patient, please feel free to call me on 02 9650 4893. I will return your call and discuss how we can help.

You can also reach me via ralphstanford@powspine.com.au.



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