

# Cauda Equina Syndrome

Causes, Symptoms & Diagnosis

Q&A

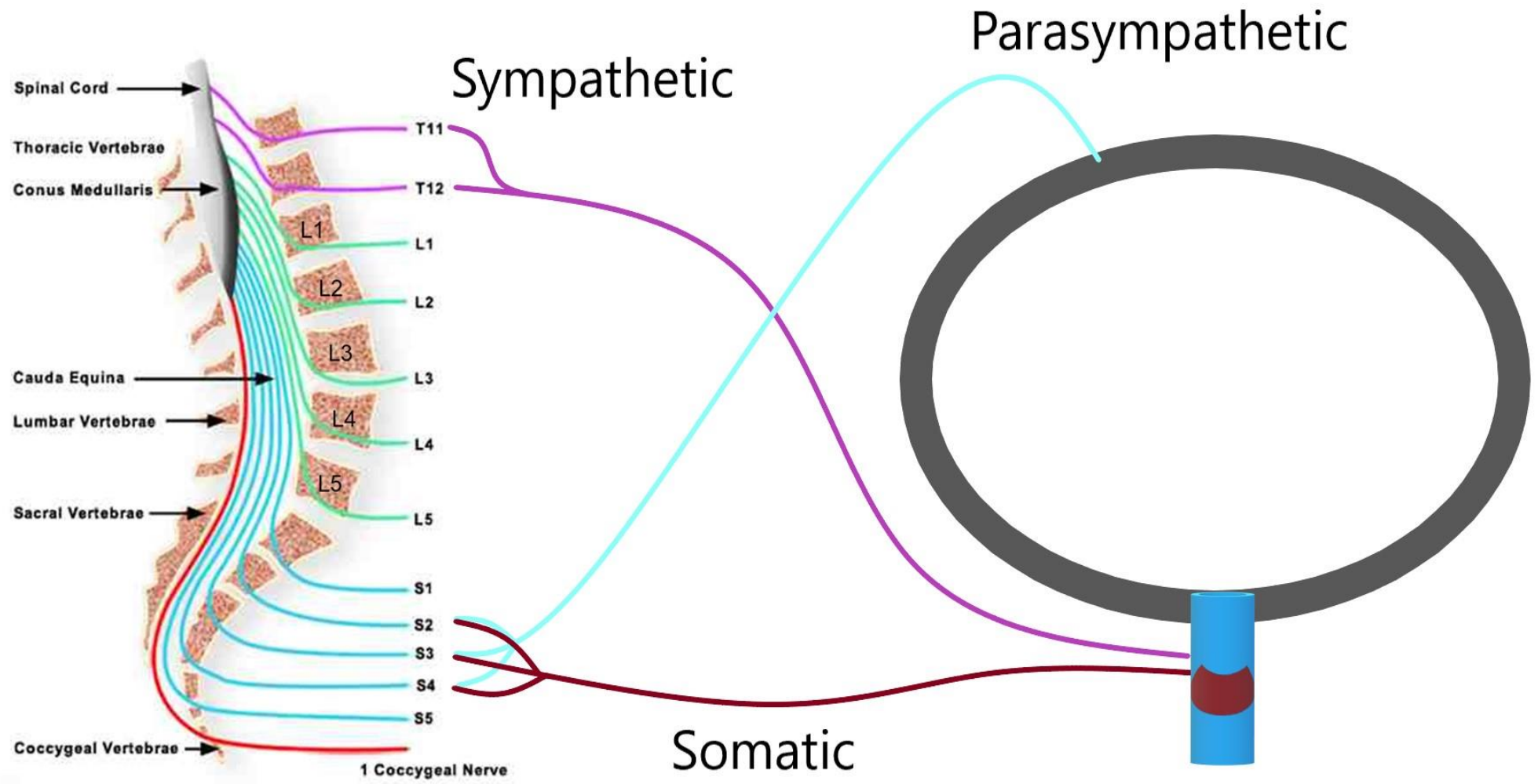


# Cauda equina syndrome (CES)

- Rare but devastating
- What are the early warning signs?
- What should be done?
- What is it not?

# Cardinal features of acute CES

- **Urinary retention**
  - Detrusor paralysis
  - **NOT incontinence in the early phase**
- Loss of perianal sensation
- Variable loss of lower limb power and sensation
- Associated with compromise of lumbar spinal canal



# Clinical features

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

# 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
Loss of desire to void	Painless urinary retention	
Strain to pass urine		Overflow urinary incontinence
Partial perianal anaesthesia	Complete perineal anaesthesia	
Reduced anal contraction		Faecal incontinence

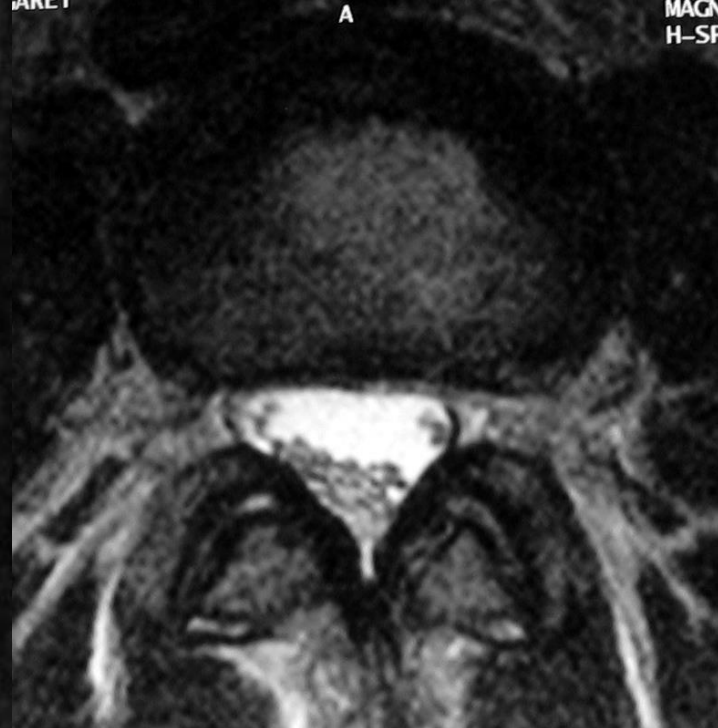


26% in 24 hours



## 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?

# 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

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

# What it is **not**

- Over active bladder (pain and urgency)
- Stress incontinence
- Chronic constipation elderly
- Medications
  - Opioids
  - Gabapentin, pregabalin
  - Anticholinergics, TCA

Q & A





# Thank you

A recording of the webinar will be available online

Further resources are available on my website at

<https://spinalsurgeonsydney.com.au/for-referrers>