

Management of Interscapular Pain Associated with Labor Epidural Analgesia

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Background

- Interscapular pain (ISP) associated with labor epidural analgesia was first described decades ago¹
- ISP prevalence and mechanism remain poorly defined²
- Increased epidural space pressure leading to thoracic spinal cord compression and meningeal stretching is a theoretical mechanism^{3,4}
- Recent trends in epidural infusion protocols have led to sizable solution volumes administered as boluses
- ISP has been increasingly identified at our institution
- So, how can we manage ISP?

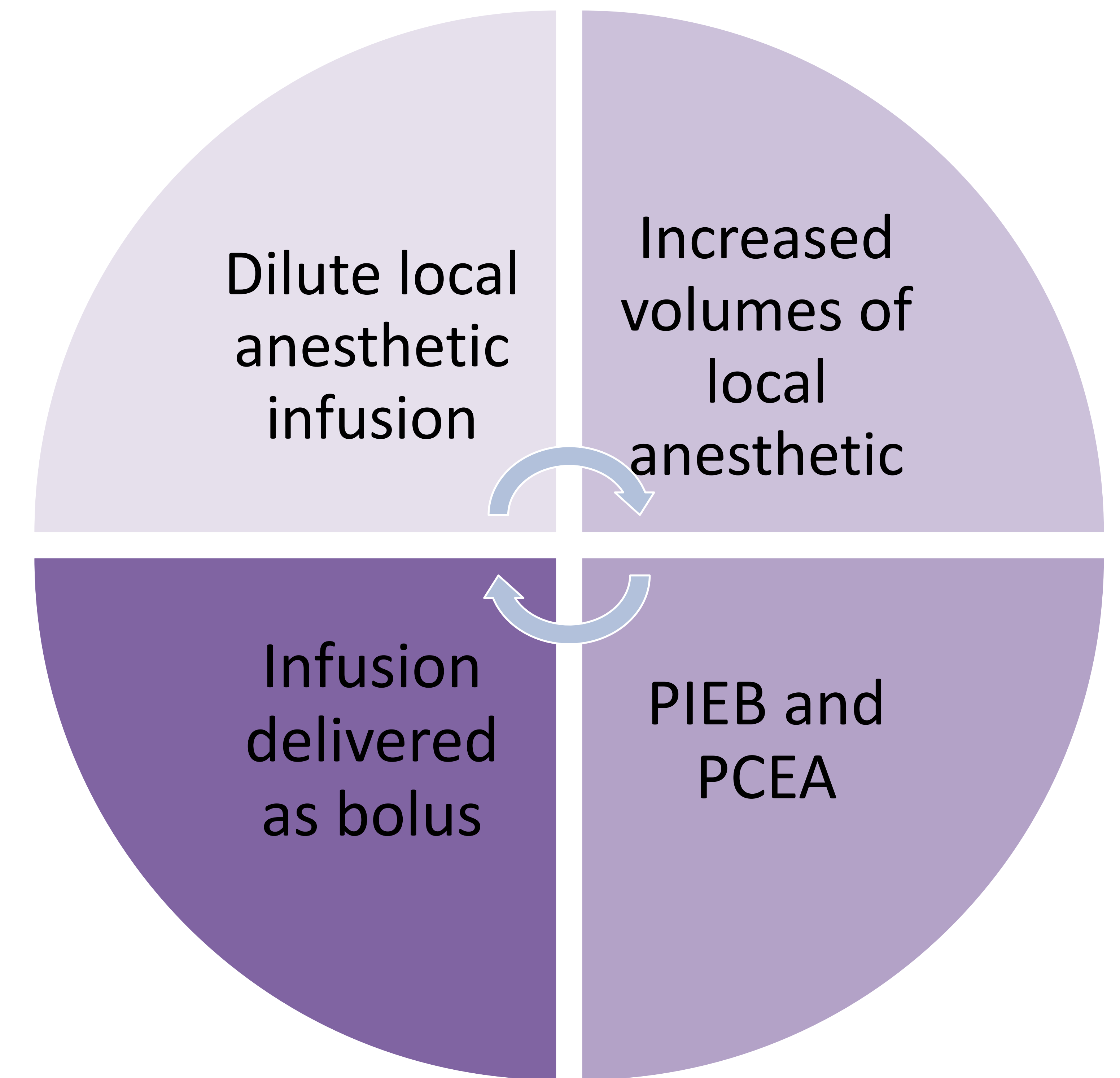
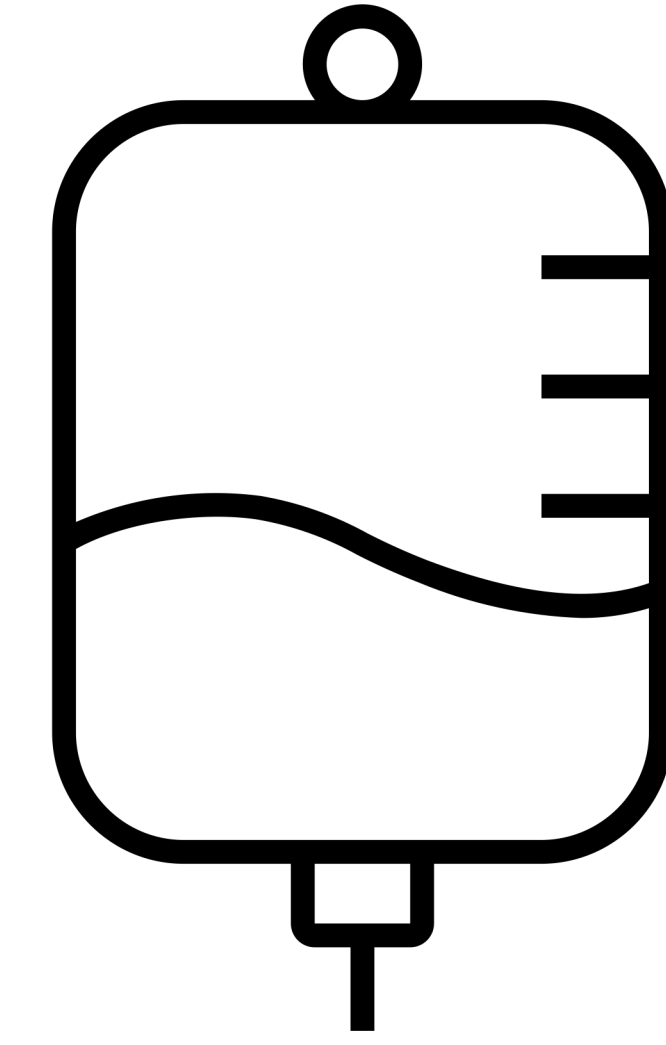


Figure 1: Relationship between infusion and pump trends

Case Presentation

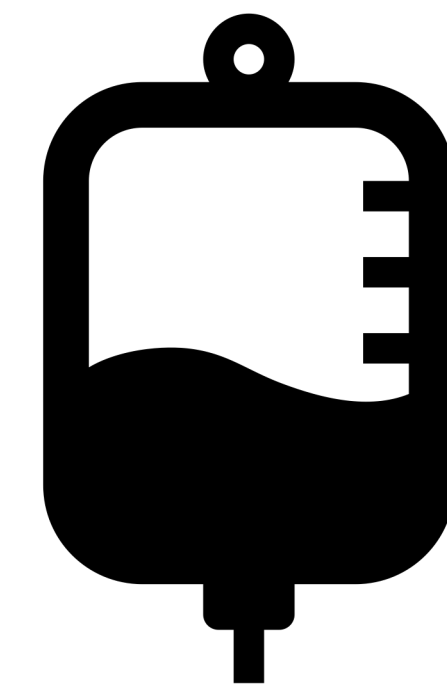
- 35 G1P0, BMI 39, no PMH or PSH
- Epidural analgesia requested at 3cm cervical dilation
- CSE placed – IT dose of 2mg bupivacaine and 15µg fentanyl
- Typical infusion and pump protocol initiated
- Nurse called for intense throbbing between her shoulder blades, worse “when hitting the button”, no labor pain
- Staged interventions throughout labor course resulting in successful use of catheter for cesarean delivery



- 0.0625% bupi with 2µg/ml fent
- PIEB of 10ml every 60mins, first dose 30mins after IT
- PCEA of 8ml with a 10mins lockout period and 32ml/hr infusion maximum

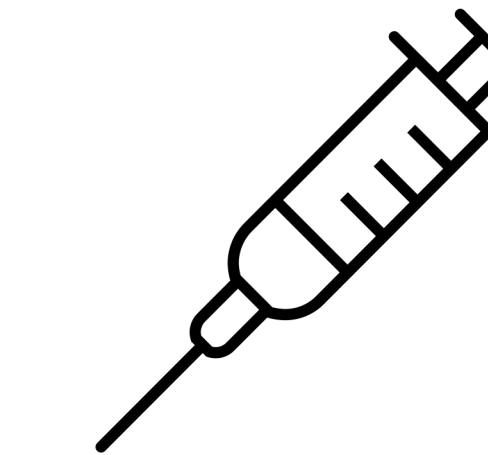


8 hrs
176ml infused
ISP identified



- 0.1% bupi with 2µg/ml fent
- Protocol changed to continuous 8ml/hr with PCEA of 6ml

ongoing ISP →



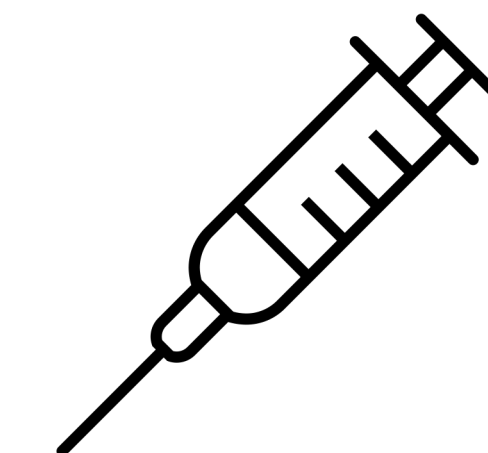
- Epidural clonidine 75µg

4hrs
Cesarean delivery planned



- 2% Lidocaine dosed to T4 level without ISP

←



- Epidural fentanyl 100µg

Discussion

- ISP is a rare complication of labor epidural analgesia
- ISP can limit epidural analgesia effectiveness and prevent conversion to epidural anesthesia
- Can occur at varying infusion volumes, this is potentially related to varying epidural space compliance and anatomical anomalies^{2,4}

Recommendations

- Increase local anesthetic concentration
- Switch to continuous infusion with/without PCEA
- Epidural fentanyl (100µg) and/or clonidine (75µg)
- Replace epidural catheter

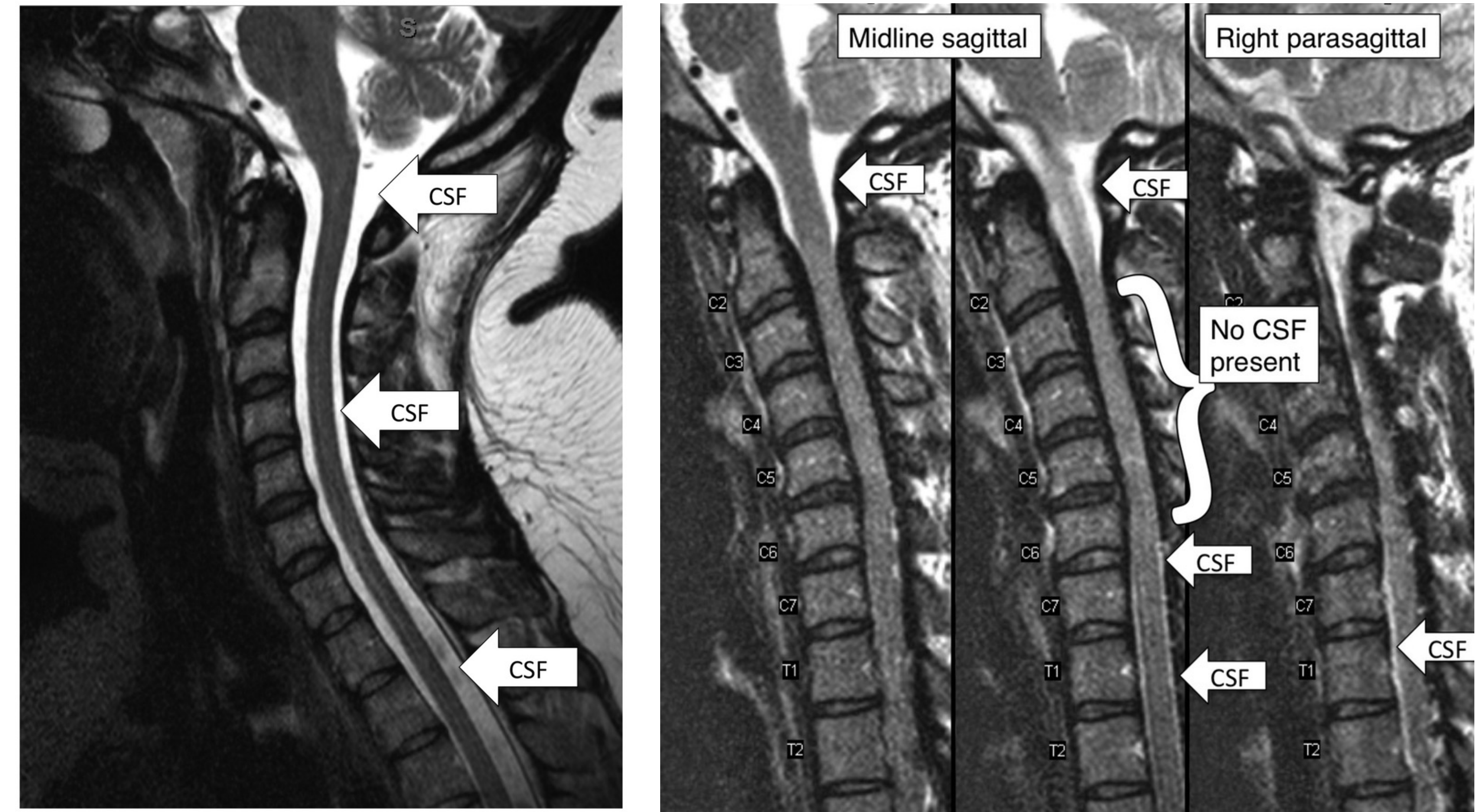


Figure 3: Normal and Abnormal MRI⁴

References:

1. Edwards (1984) Anes 39:194
2. Klumpner (2016) Can J Anes 63:475-9
3. Shah (1993) Int J Ob Anes 2:190-2
4. Dickerson (2016) RAPM 41:776-779