

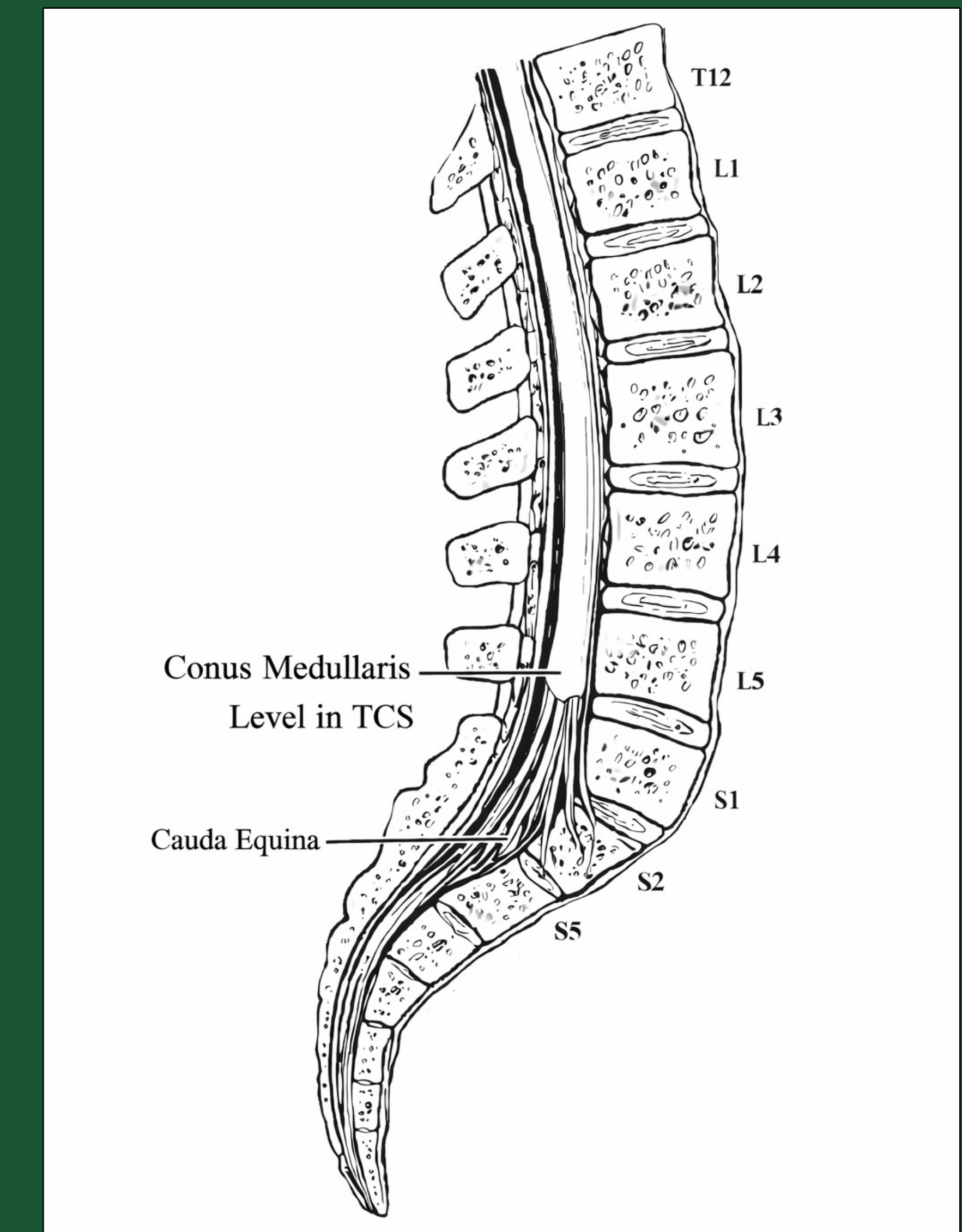
Anesthetic Management of Cesarean Delivery in a Patient With Prior Tethered Cord Release

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Tethered Cord Syndrome (TCS) results from abnormal fixation of the spinal cord causing traction-related neurologic symptoms. Symptoms may include pain, neurological deficits, and bladder dysfunction.

- **Neuraxial anesthesia (NA)** may carry increased risk of neurologic injury in TCS
- Risk may persist **even after surgical detethering** due to low-lying conus medullaris
- **Updated spinal imaging** is typically recommended before neuraxial techniques

Objective: Present anesthetic management considerations for cesarean delivery in a patient with prior TCS release.



Case Presentation

Patient History

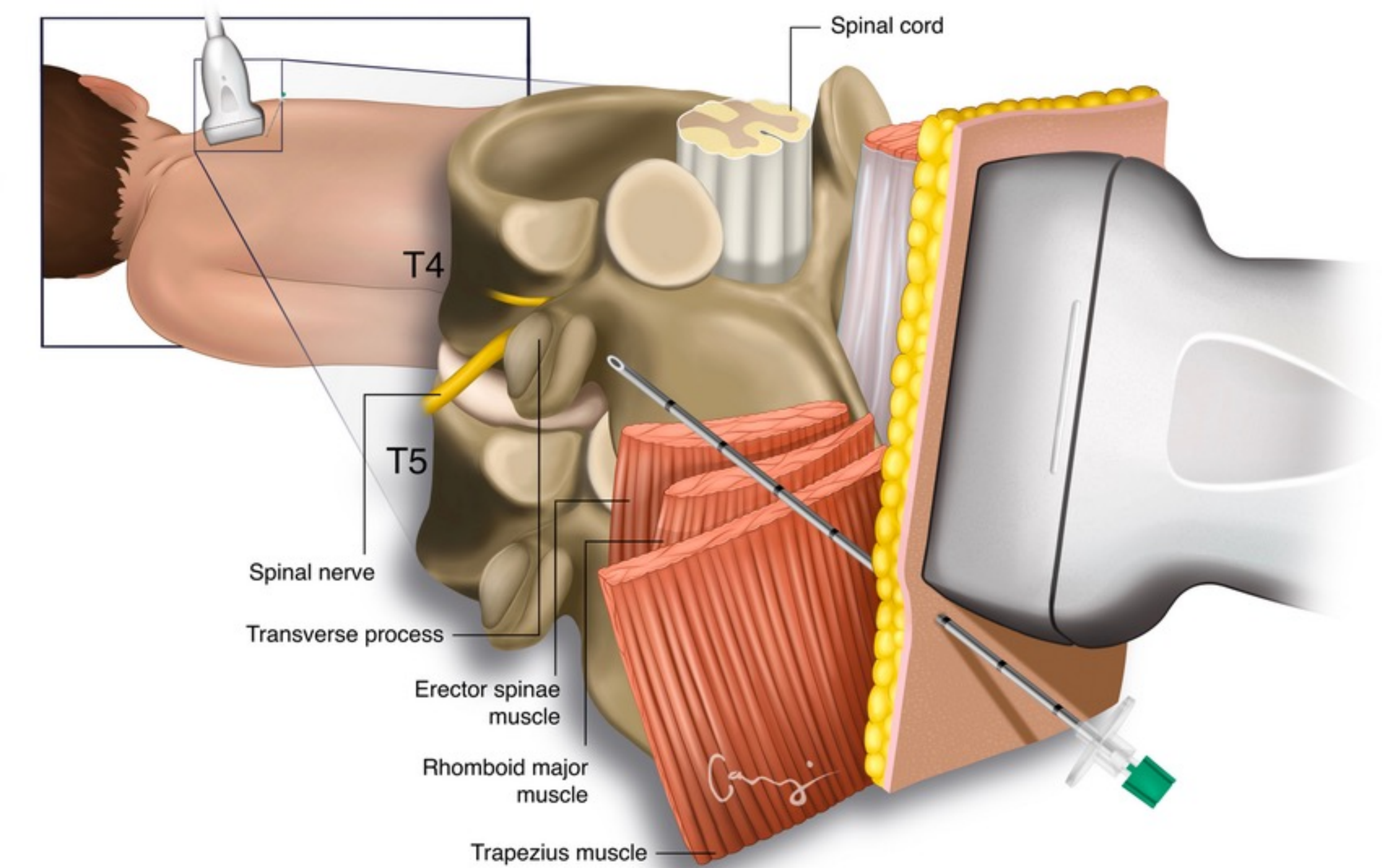
- 20 YO G1P0 evaluated at **31 weeks gestation**
- History of TCS diagnosed at age 4
- Surgical **cord detethering at 10**
- Persistent urinary dysfunction → **InterStim bladder stimulator**
- MRI contraindicated due to device incompatibility

Hospital Course

- Admitted at **37 weeks** for induction (gestational hypertension)
- Analgesia attempted with **bilateral ESP catheters**
- 0.2% ropivacaine

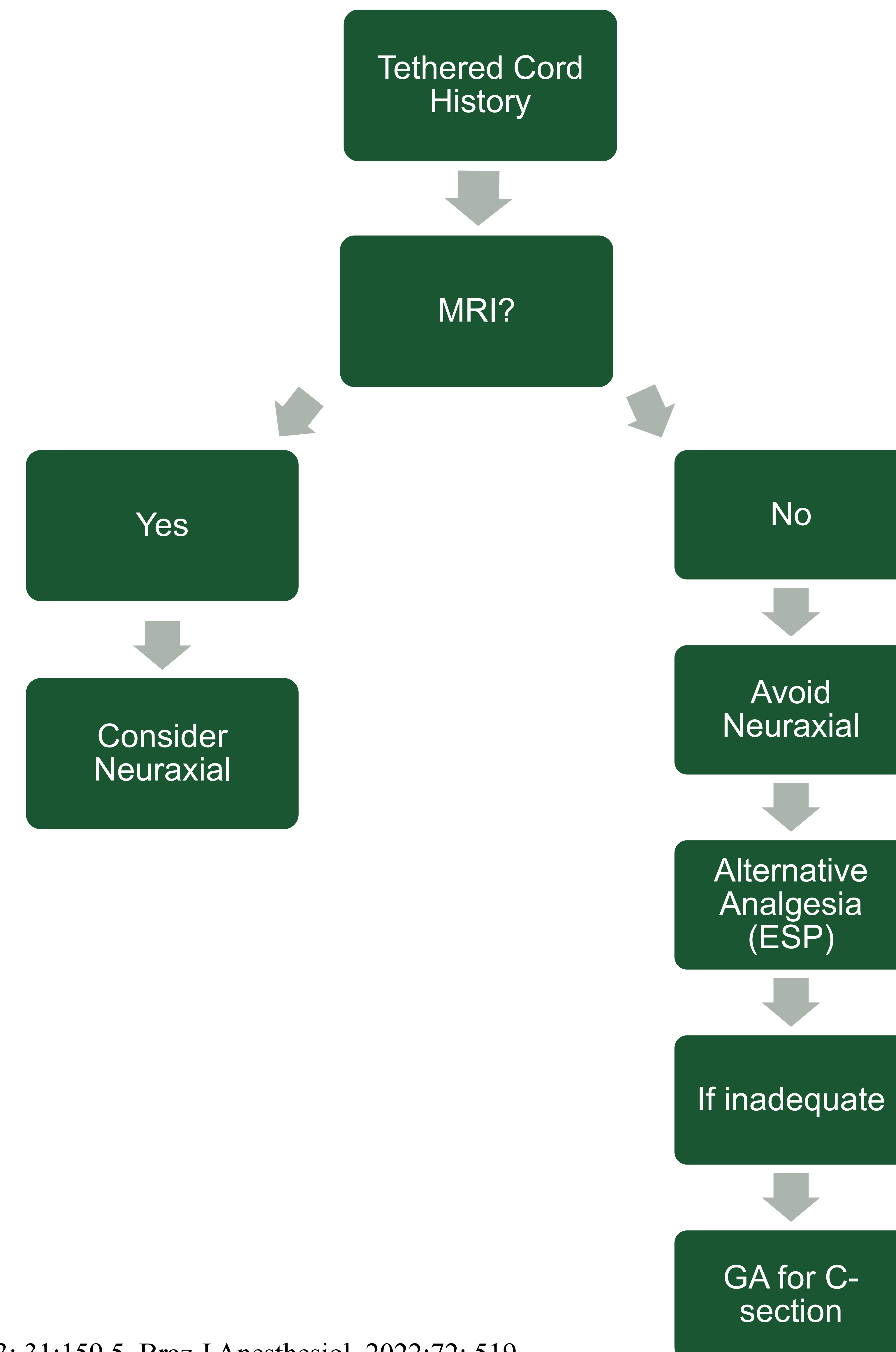
Outcomes

- Inadequate labor analgesia
- Multidisciplinary decision for **expedited cesarean**
- Delivery performed under **general anesthesia**
- Uncomplicated recovery
- Mom & baby well at 1 week follow-up



Teaching Points

- **TCS patients remain at risk during neuraxial anesthesia even after detethering**
- **Updated MRI imaging is recommended prior to neuraxial placement**
- Implanted devices may **limit imaging and anesthetic options**
- **Alternative regional techniques** such as **erector spinae plane blocks** may provide labor analgesia
- **General anesthesia may be appropriate** when:
 - neuraxial techniques are unsafe
 - regional alternatives fail
- **Individualized multidisciplinary planning is essential**
- More literature is needed to guide anesthetic management in **TCS during pregnancy**



1. Neurosurg Focus. 2024; 56:18 2. Anesth Analg. 2010; 111:1511 3. Medicine (Baltimore). 2016; 95:4289 4. J Neurosurg Pediatr. 2023; 31:159 5. Braz J Anesthesiol. 2022;72: 519