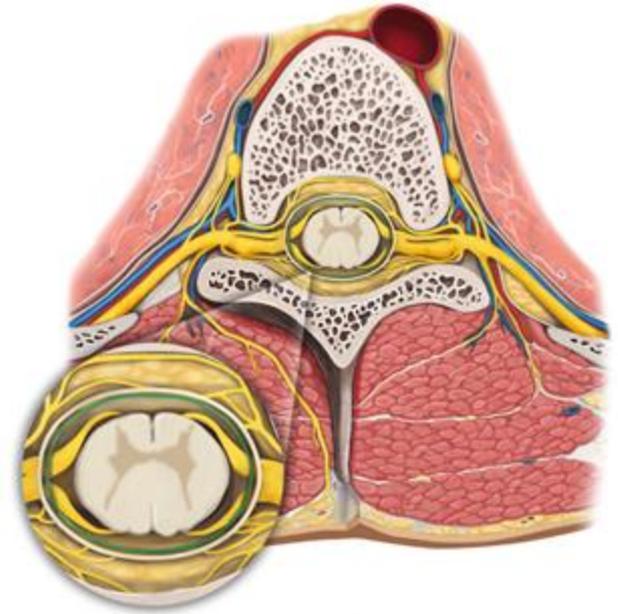


Clinical Diagnosis: A Case of Subdural Catheter Placement

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- A subdural potential space exists between the dura and arachnoid (highlighted in green)
- During Touhy advancement, it is possible to puncture the dura but not the arachnoid
- Loss of resistance without CSF return despite dural puncture
- Catheter may pass aspiration and test dose checks
- Rare complication of labor epidural placement
- Disagreement about rate of occurrence in literature
- Diagnosis largely relies on physical exam findings and patient-reported symptoms



Case Presentation

1. A 27-year-old primigravid female at 37 weeks gestation requesting labor epidural
2. Inserted uneventfully at L3-L4 level, **aspiration and test dose negative**
3. Fentanyl-bupivacaine 2 mcg/mL-0.125%, 6 mL q 30 min PIB with initial pain relief
4. **15 minutes later**, patient reported to be less responsive but **hemodynamically stable**
5. **Confusion, subjective weakness, tongue numbness**, “I feel like I am going to die”
6. Neuro exam: **preserved motor function; patchy analgesia of the legs, abdomen, chest, arms, and tongue**
7. Infusion was paused and **exam returned to baseline over the following hour**
8. The catheter was replaced at the L4-L5 level; symmetrical sensorimotor blockade to the T10 level was achieved
9. No reemergence of distressing symptoms with new catheter

Making the Diagnosis

- Distribution primarily affecting posterior spinal roots
- Delayed onset of effect
- Differentiation from intrathecal injection
 - Extensive sensory block, but typically motor sparing
 - Patchy, incomplete analgesia
 - Cardiac stability disproportionate to volume of injectate
- CT may confirm catheter position; impractical during labor
- Horner Syndrome has been described
- Management is supportive and symptom-directed
- Shared vigilance allows early identification
- Removal and replacement at a new level

