



# Background

Accidental dural puncture (ADP) occurs in 0.5–1.5% of obstetric epidurals.

**Incidence of ADP:** Occurs in 0.5–1.5% of obstetric epidurals.

**Standard Management Options:**

- Re-site the epidural.
- Convert to an intrathecal catheter.

**Challenges in Complex Patients:**

- Morbid obesity.
- Spinal pathologies.
- Technical difficulty and higher risk of repeat ADP.

# Case

- 44-year-old, G1P0, BMI 62.
- History: Gestational Diabetes Mellitus, L4–L5 disc extrusion, multi-level degenerative spine disease.

## Clinical Scenario:

- Induction of labor
- Severe sciatica pain at 1 cm cervical dilation.
- Attending anesthesiologist encountered accidental dural puncture (ADP) after an unsuccessful attempt by the resident.

## Technique Employed:

- Withdrew Tuohy needle gradually until CSF ceased preserving the original track through the ligamentum flavum and soft tissues
- Reconfirmed epidural space at a shallower depth using loss-of-resistance (LOR)
- Catheter threaded and after checking for no CSF aspiration, dilute LA–opioid infusion initiated with close hemodynamic and sensory monitoring.

## Decision Rationale for Same-Site Epidural:

- High risk of repeat attempts/repeat ADP if re-sited at a different level.
- Concerns about intrathecal catheter (risk of high spinal block, uterine tachysystole).

## Outcome:

- Effective labor analgesia followed by uncomplicated delivery.



# Conclusion:

---

**Technique Minimizes Additional Needle Passes:** Reduces risk in challenging anatomies.

---

**Close Monitoring is Crucial:** Vigilant hemodynamic and sensory checks to detect inadvertent subarachnoid catheter placement or high spinal.

---

**Individualized Approaches:** Consider patient's comorbidities, pregnancy stage, and labor progression.

---

**Research Needs:** Larger studies on safety and efficacy of same-site epidurals post-ADP.

---

**Clinical Implications:** Potential option for selected cases, but not yet standard practice.