

A Case of Unexplained Persistent Unilateral Block Following Epidural Anesthesia

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Introduction

Long lasting effect of epidural analgesia in labor is rare but it can be a potential side effect of epidural analgesia.

Case Description

A 29-year-old woman G4P2012 at 39w4d presented in early labor..

- Induction of labor for chronic hypertension.
- Nonsignificant history except a positive COVID test.
- All hematological laboratory values were within normal limits.
- Epidural was placed at **L3-L4** without difficulty by loss of resistance with normal saline. After negative test dose an infusion of 0.125% bupivacaine with fentanyl 2mcg/ml was started at 10 ml/hr.
- Epidural level - **Unilateral** (only on the right side).
- Delivered a healthy baby vaginally.
- Vital signs were stable and the catheter removed with tip intact.

12 hours later:

- Patient had persistent numbness down her right leg. Examination revealed complete loss of sensation in her entire RLE, and decreased motor functions (4/5).
- LLE sensations and motor functions were intact..

- Patient denied headache, fever, chills, saddle anesthesia, as well as urinary and bowel incontinence.
- Neurology consult- Stat MRI within normal limits except possible small hemangiomas in the T8, T12 and L1 vertebra.

Post-partum day 1:

- Lack of sensation and motor weakness in her RLE with a new sensation of paresthesia starting at her right foot that gradually increased in level throughout the day.

Post-partum day 2:

- Complete resolution of symptoms and was discharged home.



Discussion

- This patient's presentation was both challenging and unusual, but it has been reported in previous case reports with a majority of cases having longer periods to sensory loss¹.

The Differential Diagnosis:

- Possible undiagnosed neuropathy exacerbated by the epidural,
- A metabolism defect resulting in a persistent local anesthetic effect at the epidural space
- Malingering .
- The patient's recent diagnosis of COVID raises the possibility of an unknown interaction between COVID and epidural anesthesia resulting in prolonged duration of action.
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References

Pathy GV, Rosen M. Prolonged block with recovery after extradural analgesia for labour. *Br J Anaesth*. 1975;47(4):520-522.
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