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Epidural Blockade In A Laboring Parturient With A Lumboperitoneal Shunt

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Introduction: Epidural analgesia for the laboring parturient with a lumboperitoneal (LP) shunt presents a challenge for the anesthesiologist. There is limited anesthetic experience to guide such management specifically obstetrical and neuraxial risk considerations. Regional anesthesia is not contraindicated. It is recommended that labor analgesia management be based on the obstetrical and neurological status of the patient.3

Case: A 38-year-old parturient, G2P1 at 37 weeks gestation, with a history of AIDS and cryptococcal meningitis requiring a LP shunt presented to obstetrical suite for induction of labor. She had been compliant with HAART therapy with a current viral load <1000. The patient received AZT therapy prior to induction of labor with the intent to deliver vaginally. The patient requested an epidural for labor analgesia. She had a normal neurological exam with no signs of increased intracranial pressure, and prior MRI images were evaluated to assess location and status of her LP shunt. A lumbar epidural catheter was placed midline two interspaces above the LP shunt with a negative test dose. The patient experienced adequate analgesia during labor; however, she failed to progress and ultimately required a cesarean section. Surgical anesthesia was achieved with 2% lidocaine administered epidurally. The patient tolerated the procedure well and the epidural catheter was pulled easily without resistance at the end of the case. Her postoperative course was uncomplicated and neurological status intact.

Discussion: This case demonstrates that, consistent with previous reports, epidural anesthesia can be safely performed in a patient with a functioning LP shunt and a normal neurologic examination.2,3 Accidental dural puncture is one of the risks of epidural placement; however, in the presence of a functioning LP shunt the risk of cerebellar hemiation is minimal.1 Concerns of epidural placement in the presence of a foreign object, such as a LP shunt, include trauma to the shunt, knot formation of the epidural catheter, ineffective analgesia due to scar tissue, and infection.3 Aseptic technique is essential and a single dose of broad spectrum prophylactic antibiotics is generally recommended.2 No complications were encountered in this case.

Conclusion: An epidural catheter in a laboring parturient with a lumboperitoneal shunt was successfully placed providing adequate analgesia and anesthesia.