Ultrasound Guided Epidural Analgesia for Labour in a Patient with an Intrathecal Baclofen Pump

Abstract Type: Case Report/Case Series
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Intrathecal drug delivery systems for opioids & baclofen are popular for chronic pain and spasticity. Parturients with intrathecal catheter can be a challenge for labor epidural placement. We present a case where ultrasound (US) was used to assist epidural placement in a parturient with intrathecal baclofen pump(ITBP).

Case Report: A 44-yr-old woman at 31wks gestation consulted anesthesia to discuss options for childbirth. She developed left spastic hemiplegia from right MCA embolic infarct 6yrs ago. ITBP was placed to control spasticity. Anesthesia choices for vaginal & cesarean delivery were discussed. She opted for labor epidural analgesia. An abdominal X-ray revealed ITBP catheter entering spinal canal between L3-L4 interspace & terminating below T8-9 interspace(Fig). Labor was induced at 37wks gestation & pre-epidural US by an experienced staff anesthesiologist revealed distance from skin to epidural space as 4.3 cm at L1-L2 interspace. A 17-G Tuohy needle was successfully placed at 4 cm to the epidural space in midline on first attempt uneventfully. A single orifice catheter was inserted & fixed at 9cm to skin. Aspiration was negative for CSF. To ensure satisfactory epidural placement, 5mL test dose of lidocaine 1.5% & epinephrine 1:200,000 was given resulting in T8 sensory level and leg numbness. She was hemodynamically stable. Test dose was repeated in active labor & PCEA initiated with 0.083% bupivacaine & 2mcg/ml fentanyl. Labor was uneventful & forceps assisted vaginal delivery was performed.

Discussion: Baclofen is an analog of inhibitory neurotransmitter GABA and used to control spasticity of cerebral and spinal origin. ITB is effective in patients unresponsive to traditional drugs or who develop side effects to oral baclofen. Abrupt cessation of ITB can result in life threatening symptoms. Pre-procedure US can identify best interspace for epidural insertion, avoid ITBP catheter shearing, inadvertent dural puncture and failed block. A sterile technique is a must to prevent IT infection and use of antibiotic prophylaxis is unclear. Patient had reduced anesthetic requirement possibly due to preexisting altered sensations due to infarct and/or CSF leaks around ITBP catheter.

