

POSTER

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LOWER LIMB NEUROLOGICAL SEQUELAE AFTER LABOR EPIDURAL ANALGESIA KAUL, B.; Darwich, A.A. Vallejo, M.C.; Ramanathan, S.; Mandell, G.L. Department of Anesthesiology, Magee Womens Hospital, University of Pittsburgh, Pittsburgh, PA The aim of this study is to study the incidence and nature of lower limb neurological symptoms in patients receiving labor epidural analgesia (LEA). At our institution LEA blocks are usually performed in the sitting position at L3-L4/L2-L3. Bupivacaine 0.25% is administered in 5ml increments to a total of 10ml to initiate the block and then a continuous epidural infusion of bupivacaine 0.125% with fentanyl 2µg/ml started at 10-12ml/hour. Patients who had lower limb neurological symptoms (motor or sensory) after LEA were identified through the departmental CQI reporting process. After obtaining institutional IRB approval, their records were checked. 52 patients out of 20,500 patients who had LEA, had post-delivery numbness in the lower limbs. Data from these 52 patients is presented (Table). Results: Lumbar dermatomes (single or multiple) were more frequently involved (Table). The L3 dermatome was the single most affected dermatome. Of the 50 patients for whom complete information was available, 24 patients had complete resolution of symptoms within 24 hours, 16 in 2-7 days and in the rest, resolution took longer than 7 days. One patient had foot drop. Prolonged numbness could be due to residual local anesthetic action or obstetric nerve injury¹. Obstetric nerve injuries last longer than 24 hours. Thus it seems that in 50% patients the etiology appears to be prolonged anesthetic action. Conclusion: Based on this study it appears reasonable to keep the patient in the hospital for 24 hours following delivery with some patients needing continued observation for up to a week or longer following delivery. Severe cases may require evaluation by a neurologist. *I. J. Obstet Anesth* 1994;3:153.

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Bupivacaine Dose (mg, mean±SD)	89.08±57.54
Baby weight (gms, mean±SD)	3409±469.73
Duration of second stage (minutes, mean±SD)	85.38±56
Instrumental deliveries (n, %)	12 (23)
Patient weight (kg, mean±SD)	82.65±16.12
Dermatomes Involved Single Lumbar Multiple Lumbar Lumbar+Thoracic Lumbar+Sacral No Information	18 21 2 9 2

P-2

SPINAL ANESTHESIA FOR CESAREAN SECTION AFTER FAILED LABOR EPIDURAL ANALGESIA: RETROSPECTIVE ANALYSIS OF TWO DOSING REGIMENS Vudbera, R.B. Sisawala, F.J.; Portnoy, D.; Koutrouvelis, A.P. Anesthesiology, The University of Texas Medical Branch, Galveston, TX **Introduction:** The recommendations on the use of spinal anesthesia (SAB) for c-section after failed labor epidural anesthesia have varied, ranging from avoiding SAB completely [1,2] to reducing the dose of local anesthetic (LA) by 20-30% [3] to using a normal dose of LA [4,5]. At our institution, we compared the latter two dosing regimens—using the standard amount of LA in SAB vs. using a reduced dose of LA in SAB in situations where the epidural block was inadequate. The outcome measures were the incidence of total SAB and failed or inadequate SAB. **Methods:** In a retrospective, non-randomized study analyzing the two different dosing schedules used at our institution, patients who received SAB for c-section after labor epidural analgesia were reviewed for indication for conversion to SAB, documentation of block and efficacy of epidural analgesia before SAB, duration for which the infusion was stopped prior to SAB, level of block, blood pressure changes, treatment of hypotension, and postoperative complications. Patients were separated into 2 groups based on LA dosage: Group A (1.5cc of 0.75% heavy bupivacaine with 20 mcg fentanyl) and Group B (reduced dose of LA with 15 mcg fentanyl for SA). The reduced amount of LA used in Group B was calculated (shown below) using the hypothesis that spinal segments already partially blocked require only half the amount of LA to produce total SAB when compared to segments with no block. $Calculated\ Dose = \# \text{ of segments with no block} + \# \text{ of segments with some block} (0.5) \times Dose / 18$ (i.e., the total target segments required to achieve a T-5 block) **Results:** Forty-seven charts were reviewed where patients underwent c-section under SAB after failed epidural block (Group A=24 patients; Group B=23 patients). Group A accounted for 2 cases of total SAB while Group B had none. Neither group had any failed SAB. **Discussion:** The data suggest a possibility of total SAB anesthesia after failed epidural blocks when a standard dose of LA was utilized. The data also showed no failed SAB when a reduced dose of LA was used. The data also suggest that there is a way to calculate the dose of LA for SAB in such circumstances. *1. Int J Obstet Anesth* 1994;3:153. *2. J Clin Anesth* 1995;7:71. *3. Anesth Analg* 1994;78:1029-1035. *4. Anesth Analg* 1995;81:654-656. *5. Br J Anaesth* 1991;66:596-607.