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(Poster 8)

**DOES A COMBINED SPINAL-EPIDURAL TECHNIQUE IMPROVE THE QUALITY OF SUBSEQUENT EPIDURAL LABOR ANALGESIA?**  
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**Introduction:** A combined spinal-epidural (CSE) technique theoretically improves reliability of epidural analgesia(analg)<sup>1-2</sup> by confirming midline placement of the epidural catheter when cerebral spinal fluid (CSF) is obtained and by allowing transfer of local anesthetic (LA) from epidural to spinal space through the dural hole.<sup>3</sup> The purpose of this study was to determine if a CSE technique improves the quality of subsequent epidural analg. **Method:** Following IRB approval and written consent, 231 laboring parturients were randomized to receive epidural analg after either one attempt at a dural puncture with a 27G Whitacre spinal needle or no attempt at dural puncture. No patient was administered spinal medication, epidural analg was instituted in our usual fashion and blinded personnel collected data. Pain relief, epidural catheter characteristics and drug use were recorded. Data were analyzed by ANOVA and  $\chi^2$ . P < 0.05 was considered significant. **Results:** Patients were categorized into 3 groups: dural puncture with CSF (+DP), unsuccessful dural puncture (-DP), and no dural puncture attempted (NP). Demographic variables and labor characteristics were similar among groups. Analg characteristics (VAS scores, highest sensory block, IV catheters, inadequate analg, catheters manipulated, catheters replaced) and hourly drug use were similar among groups(Table). **Conclusion:** Dural puncture with a 27G spinal needle does not improve success of epidural analg and does not reduce LA requirements in laboring women. **Reference:** 1.IJOA 2000;9:3-6,2.IJOA 1998;7:220-225,3.Reg Anesth 1999;24:117

Group	-N-	IV Cath	Epid Repl	LA Use ml/hr
+DP	103	12%	12%	16±6.5
-DP	16	13%	25%	18±7.3
NP	113	6%	8%	16±3.8

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(Poster 9)

**LABOR PCEA: 5 MIN V 15 MIN LOCKOUT INTERVAL.** *Stratmann, G.<sup>2</sup>; Gambling, D.<sup>1</sup>; Stackpole, J.<sup>2</sup>; Pue, A.<sup>1</sup> 1. Anesthesiology, Sharp Mary Birch Hospital, San Diego, CA; 2. Anesthesiology, UCSD Medical Center, San Diego, CA*  
**Introduction:** Different dosing parameters have been tried in order to optimize PCEA drug delivery for labor(1). This randomized study aims to see if a shorter lockout interval (L.I.) provides better analgesia without increasing side-effects. **Methods:** With IRB approval, women consented to be assigned to use PCEA in GrpA - 15 min L.I. or Grp B - 5 min L.I. Using 0.125% bupivacaine (BUP) and 2 mcg/ml fentanyl (F), the bolus dose(5ml), infusion (6ml/h)and hourly maximum (26 ml/h) were constant. Each patient had 15 ml 0.125% BUP and 100mcg F initially. Baseline VAS pain score and satisfaction with analgesia were recorded. Patients were re-assessed 30 min post block then hourly until delivery, for VAS pain, itch and nausea, sensory level, and motor block. Total PCEA volume, ratio of injections:attempts (I:A), rescue doses, and labor outcomes were recorded. Satisfaction scores were obtained postpartum. **Results:** To date, 35/60 patients have been studied, 18 in grp A and 17 in grp B,with both grps demographically similar. No significant differences are seen in hourly BUP-F use, pain score, sensory level, need for rescue dose, motor block or side-effect profile. However, PCEA use, as indicated by I:A ratio, is superior in grp B (Table) but satisfaction is high in both grps. **Conclusions:** We have shown that a 5 min L.I. for labor PCEA is well tolerated, and may be more efficient than a 15 min L.I. because the PCEA dose can be doubled within 10 min. There is a trend for fewer MD visits, which may be significant on further study. **Reference:** 1. Gambling D. IJOA 1996;5:59

	PCEA use - ml/h	I:A ratio	Need for rescue dose by MD	VAS Pain (mm) - Time 0	VAS Pain (mm) - Time 3h+
GROUP A - 15MIN L.I.	10.6 (3.1) mean(SD)	0.68 (0.27) mean(SD)	23.5%	78.7 (19.2) mean(SD)	12.7 (19.5) mean(SD)
GROUP B - 5 MIN L.I.	11.8 (3.7) mean(SD)	0.92* (0.17) mean(SD)	7.7%	84.6 (12.0) mean(SD)	8.8 (12.4) mean(SD)
Statistics	p=ns	*MW U test p=0.02	p=0.52	MW p=0.53	MW p=0.7