O1-3

LEVOBUPIVACAINE IS UNRELIABLE FOR USE AS A SPINAL TEST DOSE. *Owen, M.D. Hood, D.D. Anesthesiology, Wake Forest University School of Medicine, Winston-Salem, NC* **Introduction:** Levobupivacaine (levo) is reportedly less toxic than bupivacaine and may be preferable for use in epidural anesthesia. When initiating epidural anesthesia, it is customary to administer a small "test dose" to rule out the possibility of subarachnoid injection. It is unknown if levo is suitable for use as a test dose prompting us to evaluate whether motor block (MB) or sensory block (SB) develops 5 min following intrathecal levo injection in volunteers. Ethical considerations prevented study in pregnant patients, therefore, nonpregnant volunteers were evaluated. **Methods:** Following institutional approval and informed consent, 15 healthy volunteers were administered intrathecal levo 10 mg (2ml, 0.5%) in the lateral position. The onset of SB and MB were systematically assessed using pinprick and a 4-point motor block scale (0= raises leg, 1=bends knee and ankle, 2=bends ankle, 3=can't move leg). **Results:** At 3 and 5 min respectively, only 7% and 20% of volunteers experienced any degree of MB. It took 45 min for MB to develop in the maximum number of volunteers 14/15 (93%) and 195 min for MB block resolution. For SB, at 3 and 5 min, 60% and 80% of volunteers had recognizable pinprick analgesia with a 5 min median (25th, 75th percentile) sensory level of L5 (L3,S1). **Conclusion:** When performing epidural anesthesia, 10 mg levobupivacaine is unreliable as an intrathecal test dose because insufficient motor and sensory block develop during the customary 5 min waiting period. A larger levo test dose (i.e. 15 mg) may produce faster MB and SB onset but may be unacceptable due to the long duration of effect. Supported in part by: NIH# MO1-RR07122

O1-4

INTRATHECAL FENTANYL AS AN ADJUNCT TO BUPIVACAINE/MORPHINE SPINAL ANESTHESIA FOR CESAREAN SECTION *Velickovic, I.A. Leicht, C.H. Department of Anesthesiology, The Western Pennsylvania Hospital, Pittsburgh, PA* The aim of this study was to determine whether the addition of fentanyl to a bupivacaine/morphine (B/M) solution offers clinical benefit to patients receiving spinal anesthesia for Cesarean section. While some of the previous studies suggest that intrathecal fentanyl produces acute spinal opioid tolerance and increases postoperative opioid requirements (1), other studies suggest that patients receiving intrathecal fentanyl have faster block onset time, improved intraoperative analgesia and decreased perioperative nausea and vomiting (2,3). Following IRB approval, and patient consent, 30 healthy parturient undergoing elective Cesarean section were randomized to two groups. Group 1 received 12 mg of bupivacaine, 0.25 mg of morphine and 25 mcg of fentanyl; whereas, Group 2 received 12 mg of bupivacaine, 0.25 mg of morphine, and 0.5 ml of normal saline (placebo), for spinal anesthesia. A midline approach at L2-L3 or L3-L4 level via a 24G Sprotte needle was utilized in all patients. Onset time, adjunctive intraoperative analgesia, time to first request for postoperative analgesia, total postoperative analgesic requirement and side effects requiring treatment, were recorded and compared between the two groups (Table 1). Data are expressed as mean + SD, results were analyzed using Student t-test, and a p-value < 0.05 was considered significant. Demographic data were similar in both groups. Onset time, adjunctive intraoperative analgesia, time to first request for postoperative analgesia, total postoperative analgesic requirement and side effects requiring treatment, did not differ between two groups. This randomized double blind study failed to show any clinical benefit of adding fentanyl to B/M for spinal anesthesia for Cesarean section. Furthermore, we found no evidence of acute opioid tolerance related to the addition of intrathecal fentanyl. It appears therefore, that intrathecal fentanyl, in the dose utilized in this study, exhibits no positive or negative effect on bupivacaine/morphine spinal anesthesia for Cesarean section. *1) Br J of Anaesth 1997;78:311-3. 2) Reg Anes Pain Med 1999;24(3):255-63. 3) Anesth Analg 1992;74:653-7.*

	Onset time to T4(sec)	Adjunct intra-op analgesia # of patients	Time to first analgesic request (min)	Post-op analgesia Ketorolac(mg/12h)	Nausea requiring treatment
Group 1 (B/M/F)	214+/-81	0(15)0%	891+/-451	24+/-30	7(15)46%
Group 2 (B/M)	214+/-85	2(15)13%	929+/-503	18+/-24	7(15)46%