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LATENT PHASE CERVICAL DILATION IS FASTER DURING EPIDURAL MEPERIDINE THAN DURING EPIDURAL BUPIVACAINE LABOR ANALGESIA IN NULLIPAROUS, INDUCED-LABOR PATIENTS *Kiselev, M.[1]; Tornatore, J.M.[2]; Leighton, B.L.[1]; Halpern, S.H.[3]; Kjaer, K.[1]; Fong, J.[1]; Gadalla, F.[1]; Abramovitz, S.[1]; Flowers-Huebner, C.D.[1]; Chasen, S.[2] 1. Anesthesiology, Weill Cornell Medical College, New York, NY; 2. Obstetrics and Gynecology, Weill Cornell Medical College, New York, NY; 3. Anaesthesia, Women's College Hospital, Toronto, ON, Canada* **Introduction:** Longer 1st stage labor has been reported in parturients (pts) randomized to epidural bupivacaine (B) vs. IV meperidine (M).(1) This difference, usually ascribed to epidural block, may be pharmacologic; M speeds the action of 3 cervical collagenolytic enzymes.(2) To separate drug effects from those of the administration route, we randomized pts to epidural M, B, or both (MB) in this double-blind study. **Methods:** Healthy, nulliparous, induced-labor pts with cervical dilation ≤ 3 cm consented to participate in this IRB-approved study. During the 1st 2 analgesic hrs, patients randomly received these epidural drugs: M grp: 50 mg M bolus, 35 mg/hr M infusion; MB grp: 50 mg M + 25 mg B bolus, 35 mg/hr M + 12.5 mg/hr B infusion; B grp: 25 mg B bolus, 12.5 mg/hr B infusion. All pts then received B-fentanyl infusions. We recorded cervical dilation rates and labor and neonatal outcomes. **Results:** 56 of 78 pts have been enrolled. An uninvolved colleague inspected the data. The median cervical dilation rate in the 1st 2 analgesic hrs: M grp: 68 min/cm (interquartile range (IQR) 40-126); MB grp: 84 min/cm (IQR 59-128); B grp: 133 min/cm (IQR 61-240). Active 1st and 2nd stage lengths and C/S rates were similar. All pts were comfortable. No major complications occurred. **Discussion:**: Preliminary results suggest that meperidine, compared to bupivacaine, speeds cervical dilation during latent phase induced labor. This may be clinically useful. Also, more specific tocolytic and induction agents may be developed if the mechanism can be identified. **Reference:** 1. Am J Obstet Gynecol 1998;179:1527-33. 2. Am J Perinatol 1993;10:130-4.

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THE ED95 OF INTRATHECAL BUPIVACAINE WITH OPIOIDS FOR CESAREAN SECTION *Mirikitani, E.; Ginosar, Y.; Drover, D.; Cohen, S.E.; Riley, E.T. Anesthesia, Stanford U., Stanford, CA* Successful cesarean section (CS) anesthesia has been reported with small doses (6-8mg) of intrathecal (IT) bupivacaine (Bup) with fentanyl (1,2). However, the ED95 of IT Bup with spinal opioids has not been quantified systematically. **Method:** 42 healthy, term parturients undergoing elective CS using a CSE technique randomly received IT 0.75% hyperbaric Bup in doses of 6, 7, 8, 9, 10, 11, or 12mg. All received IT fentanyl 10μg and morphine 0.2mg. Sensory level to nerve stimulator (50Hz/80mA) was evaluated every 2 min until a T6 level was achieved. The dose was an initial success **(I)** if T6 block occurred in 10 min, and a total success **(T)** if no epidural supplement was required to complete the surgery. Epidural lidocaine was given on patient request or visual pain score >20. Mean arterial pressure (MAP) was measured q2 min, with hypotension defined as MAP<60 mm Hg or <80% baseline. ED50 and ED95 were determined using a logistic regression model appropriate for the sample size. **Results: ED50:I**=6.7mg, **ED50:T**=7.6mg, **ED95:I**=11.0mg, and **ED95:T**=11.2mg. No failures occurred with doses ≥10mg. Speed of onset correlated inversely with dose (r^2=0.25), whereas incidence of hypotension was not dose-related. **Discussion:** This predicted ED95 exceeds successful doses reported elsewhere. This may be because we used more stringent criteria to denote a successful block and because the epidural catheter allowed supplementation of marginal blocks that in other studies might have been deemed adequate. No advantage accrued with use of very low bupivacaine doses. **Reference:** 1. Reg Anes Pain Med 2000;25:240 2. Anes Analg 1998;86:989