P-73

EPIDURAL MORPHINE FOR POST-CESAREAN ANALGESIA - DOES ADDING FENTANYL MAKE A DIFFERENCE? *Ranasinghe, S.[1] Steadman, J.[2] Siddiqui, M.[3] Lai, M.[4] Kenaan, C.[5] Toyama, T.[6] Bailur, N.[7] Melgan, J.[8]* 1. Anesthesiology, University of Miami, Miami, FL; 2. Anesthesiology, University of Miami, Miami, FL; 3. Anesthesiology, University of Miami, Miami, FL; 4. Anesthesiology, University of Miami, Miami, FL; 5. Anesthesiology, University of Miami, Miami, FL; 6. Anesthesiology, University of Miami, Miami, FL; 7. Anesthesiology, University of Miami, Miami, FL; 8. Anesthesiology, University of Miami, Miami, FL Epidural morphine is widely used for post-cesarean analgesia. Although the quality of analgesia is good with morphine, time of onset for pain relief can range form 45-90 min. This may necessitate additional parenteral analgesia as the local anesthetic begins to wear off in the PACU. Recent studies have produced conflicting results regarding epidural fentanyl to improve postoperative morphine analgesia (1). Present prospective, randomized, double blind study was undertaken to evaluate the efficacy of fentanyl in improving early post cesarean analgesia when added to epidural morphine. Study was conducted with IRB approval and informed consent from 56 patients. ASA class 1 or 2 patients with body weight less than 150 kg having cesarean delivery under combined spinal epidural anesthesia were included. Patients, who were drug-dependant, had >3 previous cesarean, or who received iv analgesics or epidural anesthetics during surgery for discomfort were excluded. Spinal medication was 1.2-1.4 cc of 0.75% hyperbaric bupivacaine with 10 mcg of fentanyl. Following the delivery of infant, 4 mg of morphine were injected epidurally. At the beginning of the skin closure, patients were randomized to receive either fentanyl 75 mcg or 1.5 cc of saline epidurally. Demographics were comparable in both groups ($p > 0.05$). Mean duration in min for admission to PACU from the placement of spinal and from the administration of morphine was 88 and 52.7 for the fentanyl group (F) and 85 and 47 for the saline group (P). The t-test and Chi-square test assessed the difference between the groups. Table 1: VAS as assessed by blinded observer during the first 4 hr post-surgery as Mean±SD and (Range). There was no statistically significant difference between F and P (p = 0.16, 0.22, 0.12, and 0.46, at 60, 120, 180, 240 min respectively). Incidence of PONV, the most frequent adverse event in both groups, was 5 (18%) and 6 (22%) in P and F respectively. Although PONV incidence necessitating treatment was numerically larger in F [5 (18%)] vs. P [2 (7%)], there was no statistically significant difference ($p > 0.05$). There was no respiratory depression noted in any group. In conclusion, additional 75mcg of Fentanyl given after epidural morphine does not improve the quality of early post cesarean analgesia and does not alter the incidence of side effects. *REFERENCES: 1. Vincent RD, et al. Does Epidural Fentanyl Decrease the Efficacy of Epidural Morphine After Cesarean Delivery? Anesth Analg 1992; 74: 658-63.*

VAS	1 hr	2 hr	3 hr	4 hr
P: n = 28	2.2±1.6 (1-7)	2.1±1.8(1-6)	2.1±1.7(1-6)	1.8±1.5(1-7)
F: n = 28	1.7±1.3(1-5)	1.6±0.9(1-4)	1.6±1.0(1-5)	1.5±1.1(1-5)

P-74

MORPHINE-INDUCED HYPOTHERMIA AFTER CESAREAN DELIVERY AND ITS REVERSAL WITH LORAZEPAM *Wang, J. Snowman, C.; Pratt, S.; Hess, P.E. Anesthesia, Beth Israel Deaconess, Boston, MA* Morphine (MS) induced hypothermia is well established in animals. The central neurologic pathways are not known, but the mechanism of heat loss is peripheral vasodilation and sweating. Flumazenil potentiates, and Diazepam partially reverses MS-induces hypothermia.[1] We investigated the incidence of MS-induced hypothermia, the associated symptoms, and the treatment with lorazepam. After IRB approval, sublingual temperature of parturients was measured with the same thermometer at admission and 30 minutes after cesarean delivery under regional anesthesia. Associated symptoms including nausea (N/V), sweating, chills, and subjective feeling were noted. Parturients whose temperature fell below 35.8°C were identified. Active warming was instituted and repeat temperature measurements followed until greater than 36.5°C. Chi-squared, Mann-Whitney tests was used for analysis with $p<0.05$ significance. Ninety-eight patients were observed. Eighty-three received spinal MS 0.25mg and 13 received epidural MS 3mg. Average preop temperature (T) 36.7±0.4°C and postop T 36.1±0.6°C. Twenty-seven women had T < 35.8°C (23 spinal,3 epidural,1 PCA, p=NS). Symptoms of feeling hot, sweating, and N/V were associated with T < 35.8°C ($p<0.01$), and also with a larger drop in T during cesarean than patients without symptoms ($p<0.01$). Feeling hot was associated with sweating ($p<0.01$), but neither of these with N/V (p=NS). All who felt hot or sweating had spinal MS, but p=NS. Six patients were identified with T < 35.8°C, feeling hot and sweaty (6% incidence with 95% CI 1% to 11%). No patients with symptoms of chills had temperature < 35.8°C. Two patients with hypothermia, feeling hot and sweating were given lorazepam 0.5 mg IV. Both patients had termination of symptoms, and increase of temperature of 0.5 - 1.0 °C within 30 minutes. Patients with symptoms who were treated conservatively resolved spontaneously within 4-6 hours. MS-induced hypothermia in parturients may be associated with sweating and feeling hot and may occur in 6% of patients. We report two patients who were successfully treated with lorazepam. *1 Eur J Pharm. 1990;187:495-500*