

A46

(Poster 36)

WHIRLPOOL BATHS IN LABOR. ANALGESIC ADJUNCT OR MICROBIOLOGIC HAZARD? *Browne, L.M.; Birnbach, D.J.; Stein, D.J.; Santos, A.C.; Kelly-Francis, S.B.; Thys, D.M.; Murray, O.; Sordillo, E.M. Depts of Anesthesiology and Microbiology, St.Luke's-Roosevelt Hospital Cntr, Columbia Univ, NY, NY* **Introduction:** Whirlpools used for relaxation in labor (1), may become contaminated by pathogenic bacteria such as *Pseudomonas*. Water contamination may lead to clinical infection in mother and neonate (2). Guidelines for cleaning whirlpools have not been established. Aims of this study were to identify pathogenic bacteria in labor whirlpools; to determine if cleaning methods reduce contamination; and to obtain policies for cleaning whirlpools at other sites. **Methods:** Cultures (BBL) of various areas of the whirlpool were collected after tub use and within 20 min of cleaning. Whirlpools were cleaned by routine surface cleaning or by running a filled whirlpool for 20 min after addition of either 1 quart of bleach or 4 tbsp of dishwasher powder. Samples were inoculated to various media, incubated at 37°C in 5% CO₂ for 72h, and reviewed daily for growth. Hospitals with labor whirlpools were contacted and disinfection protocols sought. **Results:** *Staph. epidermidis* was the most frequent organism isolated. The most frequent gram-negative spp. were *Pseudomonas* and *Acinetobacter*. Similar bacteria were isolated after topical cleaning with nonabrasive cleanser and bleach. *Pseudomonas* appeared to be spread during surface cleaning. Policies regarding cleaning and disinfection were received from 10 hospitals, and these all differed. Practices within a facility sometimes varied. **Conclusions:** Labor whirlpools may be contaminated by potentially pathogenic bacteria, that may not be eliminated by some cleaning practices. Our findings highlight the need for evaluation of disinfection methods, and establishment of guidelines. Due to infection risk, parturients should not enter whirlpool baths after epidural placement. **Reference:** 1. Aust NZ J Obs Gynaec 1997;37:137-42 2. BMJ 1994; 309:511

A47

(Poster 37)

SENSORY CHANGES AFTER COMBINED SPINAL-EPIDURAL ANALGESIA AND EPIDURAL ANALGESIA IN LABOR. *Duncan, M.A.; Prasad, P.; McKeating, K.T. Anaesthesia, National Maternity Hospital, Dublin 2, Ireland* **Introduction:** The combined spinal-epidural (CSE) technique is known to give superior relief of perineal discomfort in labor than the epidural technique (1). Loss of sacral sensation to pinprick after these techniques has not been reported. We present preliminary observational data of a comparison of perception of temperature and pinprick in the sacral dermatomes in these 2 techniques in laboring parturients. **Methods:** Parturients who had requested and received epidural or CSE for labor analgesia were studied. CSE was instituted with an intrathecal bolus of 1ml 0.25% bupivacaine with 25mcg fentanyl. Epidural analgesia was instituted with a bolus of 8mls of 0.25% bupivacaine and 50 mcg fentanyl. At 20 minutes perception of pinprick and cold was assessed with a 25-gauge needle and ice. **Results:** Forty patients were assessed. Demographics, parity and state of labor were similar in each group. There were significant differences between the CSE and epidural group for both loss of sensation to cold and pinprick (P<0.025, P<0.01). **Comment:** The data presented suggests that at the doses used CSE more frequently impairs perineal sensation to pinprick and cold. **Reference:** Collis RE, Davies DWL, Aveling W. Randomized comparison of combined spinal epidural and standard epidural analgesia in labour. Lancet 1995; 345: 1413-1416

	loss of sacral sensation to cold	loss of sacral sensation to pinprick
Epidural	14/27	6/27
CSE	13/13	13/13

A48

(Poster 38)

BEGINNING OF LABOUR EPIDURAL ANALGESIA AT PREGNANT WOMEN, USING PAIN AS THE MAIN CRITERIA *Lobo C, Ramon M, Machado C, Cardoso T, Pedro F, Correia C, Anesthesiology Department, S^a da Oliveira Hospital, Guimarães, Portugal* **Introduction:** The goal of this essay was to observe the effect of initiation of labor analgesia at maternal request, regardless of cervical dilation, which represented a major change in hospital policy. **Methods:** With institutional review board approval, 58 full term pregnant women, ASA 1, requesting lumbar epidural analgesia (LEA) were studied, excluding cases of known fetal-pelvic disproportion or fetal malpresentation. Maternal request for analgesia was the sole criteria for initiating PCEA (ropivacaine 0.1% + fentanyl 1µg/ml, 8 cc bolus, 10 min. lockout). VAS pain scores, parity, spontaneous vs. induced labor, labor duration, and mode of delivery were recorded. Cervical dilation at the beginning of LEA was revealed only postpartum. **Results:** 37 parturient were primiparous (P) and 21 were multiparous (M). There was a significant weak linear correlation between pain and dilation for all patients but not for P alone. Pain and dilation were recoded for both groups as: "low" pain (LP) VAS=3-4; "high" pain (HP), 7-10; "early" dilation (ED), 0-3 cm and "advanced" dilation (AD), 4-6 cm at the start of LEA. LEA initiation with LP or ED did not significantly lengthen labor duration, compared to HP or AD. In this preliminary stage, there have been no significant differences between any of the groups with regard to mode of delivery. **Conclusions:** Initiation of LEA at first maternal request for labor analgesia did not increase duration of labor or alter mode of delivery compared to initiation later in labor. **Reference:** 1. ACOG Committee Opinion: Pain relief during labor. *Int J Gynecol Obstet* 1993.

A49

(Poster 39)

ASSOCIATION OF THE G-PROTEIN β-3 SUBUNIT 825C/T POLYMORPHISM AND WEIGHT GAIN IN PREGNANCY *Smiley, R.M.¹; Landau, R.¹; Dishy, V.²; Xie, H.G.²; Wood, A.J.²; Kim, R.B.²; Stein, C.M.²* *1. Anesthesiology, Columbia University, New York, NY; 2. Div. of Clinical Pharmacology, Vanderbilt University, Nashville, TN* **Introduction:** The T allele of the 825T/C polymorphism of the G-protein β-3 subunit has been associated with increased body mass index [1]. Women homozygous for the 825TT genotype have been reported to retain more weight after first pregnancies [2] and an association of maternal genotype with low birthweight babies has been found [3]. As part of our investigation into the genetics of pregnancy complications, we examined whether the 825TT genotype of the G-protein β-3 subunit was associated with maternal weight gain during pregnancy. **Methods:** Blood samples were obtained from 436 women with uncomplicated, singleton pregnancies (term deliveries, no preeclampsia, pregnancy-induced hypertension, or other medical complications). Genomic DNA was analyzed for the β-3 subunit genotype by established methods [3]. Maternal weight pre-pregnancy and at delivery were determined by the best available method, usually patient report confirmed by first prenatal visit for pre-pregnancy weight, and last prenatal visit weight for final pregnancy weight. Results are mean ± SEM, compared by unpaired t-test. **Results:** Healthy pregnant women homozygous for the 825TT genotype gained significantly more weight than women with the CC genotype (17.4 ± 1 kg versus 14.8 ± 0.5 kg, p=0.03). **Discussion:** The 825TT genotype has been referred to as a "thrifty genotype," presumably with evolutionary benefit in maintaining weight, and perhaps post-partum breastfeeding potential, in societies where food is/was not plentiful [1,2]. The implications of the genotype for complications of pregnancy deserve further study. **Reference:** 1. J Am Soc Nephrol 1999; 10:1921-30 2. Lancet 2000; 355: 1240-1 3. Lancet 2000; 355: 1241-2