# SOAP ABSTRACTS

## A101 (Poster 60)

**The Impact Of Corticosteroid Administration On The Rate Of Regional Anesthesia In Patients With Hemolysis, Elevated Liver Enzymes And Low Platelet Count (HELLP Syndrome).**

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The purpose of this study was to determine if corticosteroid administration to patients with antepartum HELLP syndrome increased the likelihood of utilizing regional anesthesia.

Maternal records of pregnancies with HELLP syndrome [defined by Sibai (platelet count < 100,000 per $mm^3$, AST ≥ 70 U/L, and LDH > 600 U/L)] managed between April 1994 and December 1999 were retrospectively analyzed.

Sixty-nine patients were identified with antepartum HELLP syndrome. Antepartum corticosteroids were administered to 46 (66%) of this group. For the entire cohort, the rate of regional anesthesia was 43% in patients receiving corticosteroid vs 35% for those not treated, $p$=0.7.

In patients presenting with thrombocytopenia of <90,000 plts/$mm^3$, 0% in the untreated group (0 of 9) vs 42% in the steroid group (11 of 26), $p$=0.05, received a regional anesthetic. Conversely, 78% of thrombocytopenic patients (7of 9) who were not treated with steroids required a general anesthetic. In the corticosteroid group, 27% (7 of 26) underwent general anesthesia.

In patients obtaining a prolonged exposure to antepartum corticosteroid with a latency of ≥ 24 hours from presentation to delivery regardless of platelet count at presentation, 54% (13 of 24) underwent regional anesthesia vs 32% (7 of 22) who did not achieve this prolongation of pregnancy, $p$=0.23.

Finally, in the subgroup of patients who presented with a platelet count of <90,000 per $mm^3$, the rate of regional anethesia increased from 0% in the untreated group (n=9) to 62% in the corticosteroid group who achieved 24 hours from presentation to delivery (8 of 13 patients), $p$=0.01.

Antepartum administration of corticosteroid increases the utilization of regional anesthesia in patients with antepartum HELLP syndrome who present with thrombocytopenia particularly those who achieve an adequate latency to delivery.

Reference:
Sibai BM, Taslimi MM, El-Nazer A, et al: Maternal-perinatal outcome associated with the syndrome of hemolysis, elevated liver enzymes, and low platelets in severe preeclampsia-eclampsia. Am J Obstet Gynecol 1986;155:501-9.

## A102 (Poster 61)

COMBINED SPINAL-EPIDURAL ANESTHESIA (CSE) USING REDUCED DOSES OF INTRATHECAL BUPIVACAINE IN WOMEN WITH SEVERE PREECLAMPSIA; SAFETY & EFFICACY

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The purpose of our study was to evaluate the safety and efficacy of CSE using reduced doses of intrathecal bupivacaine (BUP) with epidural supplementation, as needed, for labor analgesia (LA) and cesarean section (CS) in women with severe preeclampsia.

METHODS: The study was approved by the IRB. Of the 85 women with severe preeclampsia (SBP≥ 160 mm Hg, or DBP ≥ 110 mm Hg and proteinuria 3+ or 4+), 39 delivered vaginally and 46 underwent CS. For LA, a mixture of 1.25 mg of plain BUP and 25 μg of fentanyl (fent) intrathecally and 0.0625% - 0.125% BUP with 2-4μg fent /ml epidurally at 12-15 ml /hr. In the CS group, 7.5 mg of hyperbaric BUP with 25 μg of fent was given intrathecally and 2% lidocaine epidurally as needed to maintain ≥ T4 block. Ephedrine10 mg IV boluses were used to treat any decrease in blood pressures. Sensory levels, hemodynamic changes, VAS scores, ephedrine dose, and neonatal outcome were noted. Statistical analysis was done using t-test, chi-square analysis, and ANOVA and p< 0.05 was considered significant. Values are mean + SD

RESULTS: In the CS group, all but 4 patients had ≥ T4 sensory level. These 4 patients received epidural dosing before surgery. In another 16 patients, epidural supplementation was needed towards the end of the procedure. In the LA group, sensory levels were T10 (range T6-L2) with adequate pain relief. The hemodynamic changes were similar (Table1)

CONCLUSIONS: With our technique using reduced doses of intrathecal bupivacaine and epidural supplementation with lidocaine as needed, adequate sensory and motor block can be safely achieved for cesarean or vaginal delivery in women with severe preeclampsia. The hemodynamic changes were similar in the two groups (Table1).

| Table1. | MAP base (mmHg) | MAP postCSE | % change | P |
|---|---|---|---|---|
| CS group | 122 ± 13 | 103 ± 13* | - 15 ± 8 | p<0,05 |
| LA group | 117 ± 13 | 98 ± 12* | - 16 ± 9 | p<0,05 |

## A103 (Poster 62)

**Title: Obstetric Anesthesia, Parturients and the Internet – A Characterization of Use**

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**INTRODUCTION:** While the internet is becoming an increasingly important source of information, little is known about how often patients use it to obtain medical information. (1,2) Specifically, no data exist on how often women use the internet as a source for information about labor analgesia, nor on the inpact this information has on their opinions.

**METHODS:** After IRB approval we surveyed women who presented for delivery. The survey included demographics, general use of computers/internet, use of internet for labor analgesia and its effect on opinion, other sources of labor analgesia information. Statistical analysis included t-test and $X^2$. $P$ less than 0.05 was significant.

**RESULTS:** To date, 330 surveys have been completed. This represented 91% of deliveries over the study period. 274 (83%) have used the internet, and of these, 180 (65.7%) have used it to find medical information. However, only 32 (11.7%) used it to find information about labor analgesia. 21 said the internet data did not change their opinion of epidurals, 9 said their opinion improved, and 2 responded that their opinion declined. Education level, household income, maternal age, and whether the parturient labored did not influence whether the parturient sought information about analgesia options. Other common sources of information about labor analgesia included: Obstetrician (56.5%), Friends (52.6%), Childbirth classes (44.9%), Books (44.4%), Magazines/TV/Newspaper (30.4%), Doula (5.8%). Women used a median of 3 sources. Only 1.4% had no information prior to delivery.

**DISCUSSION:**. Our data comfirm that many women use the internet as a source of medical information. However, few have used this resource to explore options for labor analgesia. Many women rely on non-medical sources (friends, media) for their information. Internet sites created by anesthesia practitioners should be encouraged as a valuable resource for options in labor analgesia.

**REFERENCES:** 1) Dev Med Child Neur; 1998:795. 2) Int J Med Informatics; 1998:279-85.

## A104 (Poster 63)

**Nalbuphine Given IV Before Epidural Analgesia For Labor Causes More Frequent Redosing Of Epidural Medications**

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**Introduction**: Nalbuphine can antagonize the effects of intravenous narcotics, but epidurally administered narcotics are thought to be protected from the effects of the agonist/antagonist.[1] This study looks at whether the clinical experience supports this theory.

**Methods**: After IRB approval, a list of the patients who received nalbuphine on the labor & delivery floor during a 2 month period (1/99-2/99) was obtained from the hospital pharmacy. Anesthesia charts were then reviewed for patients who received an epidural anesthetic for labor analgesia after the nalbuphine had been administered. Patients who gave birth within 1 hr after the epidural catheter was dosed and those who needed additional epidural medication because of a documented one-sided block were excluded from the study. Data then were gathered as to the interval between nalbuphine administration and epidural catheter dosing, as well as to which patients required supplementary epidural medications within 2 hrs after the initial standard dose of medication (10cc of 0.125% bupivacaine, 0.0005% fentanyl, 1:600k epinephrine) had been given. The record of a control patient who did not receive nalbuphine was also reviewed for each of the study patients. Where possible, the control patient received her anesthetic on the same day and by the same team as the corresponding study patient. Statistical significance was determined using the chi square test.

**Results**: Records were reviewed from 108 patients who received nalbuphine and an equal number who did not. The nalbuphine group was divided into two, depending on whether the patient received this medication within less than (group I) or greater than (group II) 3 hrs before the epidural catheter was placed. A significantly ($p<0.05$) larger number of women in group I required supplementary epidural medications (16/71(23%)) compared with controls (12/108(11%)). Group I also required redosing more frequently than those in group II (4/37(11%). However, this difference did not reach statistical significance, probably due to the small number of patients in group II.

**Conclusion**: Laboring patients who receive nalbuphine within 3 hrs before epidural medications are given will be more likely to require additional epidural medications to attain an acceptable level of analgesia.

**Reference**: 1. Anesthesiology 1986;65:216-218.