

## P-13

**IS THERE A RELATIONSHIP BETWEEN RESPONSE TIME FOR LABOR EPIDURAL AND PATIENT SATISFACTION?** *Megally, M. Joseph, N.J.; Salem, M. Department of Anesthesiology, Advocate Illinois Masonic Medical Center, Chicago, IL.* Introduction: We instituted a patient evaluation survey designed to determine satisfaction with anesthesia services for labor and delivery. Responses from the questionnaire were used to examine the relationship between response time for labor epidural and patient satisfaction. Methods: 456 patients receiving epidural analgesia for labor at an urban teaching hospital were surveyed during a 3 month period. The epidurals were performed by 2nd and 3rd year residents under supervision. A standard technique was used in all cases. The survey form sought to determine, whether the obstetrician/midwife discussed methods of pain relief, whether other methods of pain relief were tried initially, estimates of pain before and after epidural, response time for epidural, and patient's expectations and overall satisfaction with anesthesia services for labor epidural. Response time was calculated as the difference between times of bolus injection and request for epidural. Estimates of pain were made according to a 10 point (0 = no pain and 10 = most severe pain) visual analog scale (VAS). Results: Data from 330 returned forms were submitted for analysis. The table summarizes the results. Discussion: We hypothesized that response time following request for epidural would be a major factor in determining patients' satisfaction. However, we found no difference when comparing mean response time between patients who found the time frame satisfactory or unsatisfactory; nor was there any correlation between response time and overall satisfaction. A search of the literature failed to adequately define a reasonable response time to requests for labor epidural analgesia. As others have found, patient satisfaction is a multifactorial issue.<sup>1-3</sup> In conclusion, patient satisfaction surveys yield valuable information and sometimes unexpected results.<sup>3</sup> We submit that other factors (primigravida/multipara, previous anesthetics, etc.) not necessarily elicited from our survey, were involved. Further investigations are required. References: 1. *Clin Obstet Gynaecol* 1998;12:499; 2. *Reg Anesth Pain Med* 2001; 26:468; 3. *J Perinat Med* 1997;25:433.

	n	Mean $\pm$ SD (range) or Count (%)
Age	270	26.2 $\pm$ 6.2 yrs
Discussed pain relief?	318	Yes 284 (89.7%) No 34 (10.7)
Received IM or IV pain meds?	291	Yes 151 (51.9%) No 140 (48.1%)
Pain prior to epidural	321	7.9 $\pm$ 2.3 (0-10)
Pain after epidural	320	2.9 $\pm$ 3.1 (0-10)
Response time satisfactory?	311	Yes 290 (93.2%) No 21 (6.8%)
Pain moderate or severe after epidural?	320	Always 14 (4.4%) Almost Always 14 (4.4%) Often 62 (19.4%) Almost Never 143 (44.7%) Never 67 (20.9%)
How much pain after epidural?	320	Much More 34 (10.6%) More 32 (10.0%) As Much 6 (1.9%) Less 92 (28.8%) Much Less 126 (39.4%)
Overall satisfaction	323	Very Satisfied 203 (62.8%) Satisfied 93 (28.8%) Neither 15 (4.6%) Dissatisfied 7 (2.2%) Very Dissatisfied 5 (1.5%)
Response time	293	32.3 $\pm$ 22.5 min (15-185)

## P-14

**NITROGLYCERIN FOR MANUAL REMOVAL OF PLACENTA** *Sabzposh, S.A.<sup>1,2</sup> Sabzposh, N.A.<sup>3</sup> Sultana, K.<sup>3</sup>* 1. Anesthesiology, SUNY-Downstate Medical Center, Brooklyn, NY; 2. Anesthesiology, JN Medical College, Aligarh, India; 3. Ob & Gyn, JN Medical College, Aligarh, India Background: Retained placenta occurs in up to 1% of all vaginal deliveries. In the absence of prior regional analgesia, general anesthesia is usually required for manual removal of placenta (MRP). Nitroglycerin (NTG) has been used in a number of obstetric procedures as a uterine relaxant.<sup>(1)</sup> Objective: To evaluate intravenous (IV) NTG for manual removal of placenta and study its side effects. Methods: With IRB approval and informed consent, thirty patients with retained placenta were included in this study. Two large bore IV lines were secured and patients were resuscitated as needed. All patients were preloaded with 500 ml of Ringer's Lactate. Sedation was given with pentazocine and diazepam. With the patient prepped and draped and Obstetrician ready, NTG 50  $\mu$ g IV was given and the degree of uterine relaxation and cervical dilatation was assessed. Vitals were assessed q min and repeated boluses of NTG titrated to effect, when MRP was done by the Obstetrician. Results: Mean age of patients was 27.53 yrs  $\pm$  5.61 SD, range 20-40 yrs. Hgb level of patients ranged from 4-11 gms%, mean 7.24 gms%  $\pm$  2.08 SD. Mean change in pulse rate after NTG was 4.93 BPM  $\pm$  4.05 SD, statistically significant ( $P < 0.01$ ) but clinically insignificant. Mean fall in SBP and DBP after NTG was 17.6 mm Hg  $\pm$  6.67 SD and 10.86 mm Hg  $\pm$  8.89 SD respectively. No patient developed shock. Total dose of NTG required was 50-250  $\mu$ g, mean 108.33  $\mu$ g  $\pm$  63.08 SD. Mean cervical dilatation was 2.76 cm  $\pm$  0.50 SD before and 9.60 cm  $\pm$  0.96 SD after NTG. Correlation between dose of NTG and cervical dilatation was highly significant ( $P < 0.001$ ). Time to onset of cervical dilatation after NTG was 40-90 sec, mean 68.33 sec  $\pm$  14.34 SD. Mean time for recovery of uterine tone was 3.9 min  $\pm$  1.21 SD. Peroperative blood loss was 100-600 ml, mean 258.33 ml  $\pm$  99.20 SD. There was no significant correlation ( $P > 0.05$ ) between blood loss and dose of NTG. No major side effects occurred. Two patients complained of palpitations that were attributed to severe anemia and successfully treated accordingly. No mortality was observed. Success rate after NTG for full cervical dilatation was 96.6%. MRP could not be done in 2 patients who had morbid adhesion of placenta and were treated surgically under anesthesia. Conclusion: NTG is effective and safe for MRP. General anesthesia and its inherent risks can be avoided with this technique in a high risk population. 1) *Abouleish AE, Corn SB: Intravenous nitroglycerin for Intrapartum External Version of the Second Twin. Anesth Analg* 1994; 78: 808-9.