Title: EPIDURAL FENTANYL FOR POST-VAGINAL DELIVERY PAIN

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Many patients require postoperative pain medication following vaginal delivery. Fifty to 100 mcg of epidural fentanyl is effective in treating postoperative cesarean delivery pain[1] and does not produce respiratory depression[2]. The purpose of this study was to evaluate the use of 50 mcg of epidural fentanyl in patients following vaginal delivery with epidural anesthesia.

The study was approved by the hospital IRB and all participants gave written informed consent. Forty patients (ASA I & II) with singleton pregnancies were randomly assigned into 2 groups and received, in a double-blind fashion, either 10 cc of normal saline (n=20) or 50 mcg of fentanyl and 9 cc of normal saline (n=20), epidurally, immediately following delivery. All patients received only epidural bupivacaine for labor analgesia and 2-chloroprocaine for delivery.

Patients rated their pain, nausea, pruritus, and sedation 0.5, 1, 2, 4, 6 and 24 hours after delivery. In addition, an investigator rated five common pain behaviors for each patient at these times. All patients had access to PO percocet, as needed, following delivery. If patients received percocet, the times were recorded as were the total number of doses administered in 24 hours. The groups were compared using t-tests and Mann-Whitney U statistical methods and $p < 0.05$ was considered significant.

Demographic characteristics, severity of surgery, and method of delivery did not differ between groups. Compared to the saline group, the fentanyl group displayed significantly longer times to the first request for percocet (means = 170 vs. 255 min., $p < 0.05$), reported lower pain scores during the first two hours post-delivery ($p < 0.05$), and overall had fewer pain behaviors ($p < 0.05$). However, time to subsequent percocet requests and the total number of requests were not different between groups. Respiratory depression and urinary retention did not occur in any patient. The incidence of nausea, pruritus and sedation were low and did not differ between groups.

Although of short duration, the analgesic effect of 50 mcg of epidural fentanyl may be beneficial to patients following vaginal delivery with epidural anesthesia and is not associated with clinically significant side effects.

References
1. Anesthesiology 63:694; 1985.
2. Anesthesia 40:949, 1985.

TITLE : COMPARATIVE STUDY OF TWO ORAL ANTACIDS IN EMERGENCY OBSTETRICAL ANESTHESIA.EFFECTS ON PH AND VOLUME OF GASTRIC CONTENT.

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The injection of cimetidine (Cm) intramuscularly in association with oral 30ml 0.3 molar sodium citrate(C) proved to be an effective[1]although complicated method. Oral Cm at a dose of 200mg in association with a dose of citrate equivalent to 20ml citrate (CC) is now available*.We compared gastric pH and volume content of CC with citrate commonly used in our institution.

After approval had been given by our local Ethical Committee and informed consent , 103 parturients (ASA I and II) in labour, who required obstetrical emergency anesthesia, were randomly assigned to 2 groups: Gr.C: 30ml C (n=54), Gr.CC: one CC effervescent tablet dissolved in 30ml water (n=49). C and CC were given just before induction. General anesthesia consisted of thiopentone, suxamethonium, 50% nitrous oxyde and 0,5% halothane with oxygen. After delivery of the infant, 0,05-0,20 mg fentanyl were administered intravenously. After intubation, 5ml of gastric content were aspirated immediately (t1) and just before extubation (t2). At t2, the stomach was emptied as completely as possible. The pH of each sample was measured (Digital pH 611). Data were analysed using t-test and chi^2-test. A P value of equal to or less than 0.05 was considered statistically significant.

Two patients (one in each group) had to be eliminated from the study.The groups were not statistically different for demographic data, duration of labour, fasting state, duration of anesthesia and amounts of fentanyl. Ninety cesarean sections (45 per Gr.) and 13 forceps deliveries were undertaken. In Gr. C, 1 patient had pH-t1 = 2.01 and pH-t2 = 2.5 and in another patient, pH fell from 4.95 at t1 to 2.11 at t2, 125min. later. In Gr.CC, 1 patient had both pH values inferior to 2.5, respectively 1.69 (t1) and 2.16 (t2) (Table). The pH values inferior or equal to 2.5 may account for a high level of gastric acidity prior to oral treatment and/or for poor mixing with gastric content[2].The volume of gastric content ranged from 5ml to 230ml in Gr.C and from 3ml to 240ml in Gr.CC, with an average volume of respectively 67±47 ml and 74±54 ml. They were not statistically different.

No significant difference was found between CC and C regarding their effectiveness in our study. CC was easier to handle than C as it requires neither cold storage nor special pharmaceutical preparation.

References:
1. Anaesthesia : 352 - 355,1987
2. Anaesthesia : 641 - 650,1980

Table - pH values of gastric content: mean ± SD (extreme values).

Time	Gr.C (n=53)	Gr.CC (n=48)	P
t1	5,86 ± 1,02 (2,01 - 8,80)	5,63 ± 1,24 (1,69 - 7,50)	NS
t2	5,63 ± 1,35 (2,11 - 9,03)	5,60 ± 1,31 (2,16 - 7,80)	NS

*Tagamet effervescent 200® (Smith Kline and French)