TITLE: RISK FACTORS FOR POSTPARTUM BACKACHE ASSOCIATED WITH EPIDURAL ANESTHESIA

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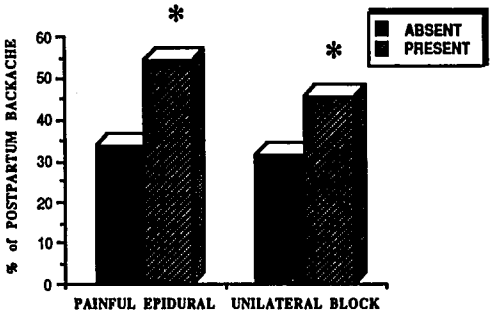
Postpartum backache (PPB) is frequent after delivery. Despite the current opinion that epidural anesthesia does not increase the risk of PPB, there is no prospective study which evaluate the technical events associated with epidural anesthesia and the subsequent occurence of PPB. The goal of this study was therefore to prospectively record, in a large obstetrical population, all of the events associated with epidural anesthesia and then to observe the incidence of PPB. After Institutional Committee approval, we prospectively studied 466 parturients who had epidural analgesia for labor and subsequently had spontaneous vaginal delivery. Objective data (position of the patient, use of local anesthesia before needle insertion, the interspace used, volume of local anesthetic injected into the epidural space,technical problems such as blood in the needle) were recorded at the time of epidural was performed. Subjective evaluation of epidural anesthesia by the patient about pain associated with needle insertion, occurence of unilateral block, quality of analgesia provided and the presence of PPB during the first 3 days after delivery were recorded. Statistical analysis was performed using either t-test for unpaired data or chi-square analysis as required. $p < 0.05$ was considered statistically significant.

None of the objective data listed above was predictive of the subsequent development of PPB.The two main factors associated with PPB and related to epidural procedure were local pain at the time of needle insertion and the occurence of unilateral block (figure).

In conclusion, local pain induced by needle insertion and unilateral block are the two factors that may be related to epidural procedure; Conversely, the occurence of PPB after a painless epidural giving effective bilateral analgesia is unlikely to be solely due to epidural procedure.

FIGURE: % of BACKACHE with or without PAINFUL EPIDURAL or UNILATERAL BLOCK



* $P < 0.05$ versus absence of the problem

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TITLE: CLINICAL EVALUATION OF PROSTAGLANDIN E_1 ADMINISTRATION DURING CESAREAN SECTION

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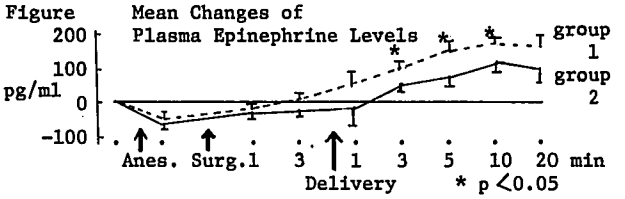
Introcduction: General endotracheal anesthesia for cesarean section has undergone considerable change in the past three decades[1]. However, it remains disadvantages of decreased uterine contraction and elevation of blood pressure during cesarean section under light general anesthesia. It is our aim to study the clinical evaluation of prostaglandin E_1 (PGE_1) for anesthetic management during cesarean section.

Method: The protocol was approved by the Institutional Committee on Scientific Activities and informed consent was obtained from the patients. Twenty patients scheduled for elective cesarean section under general anesthesia were divided into two equal groups. All patients were induced with thiopental 4 mg/kg IV followed by vecuronium 0.1 mg/kg IV for endotracheal intubation and maintained with N_2O 3 L/min - O_2 3 L/min - 0.5 % halothane. In group 1, PGE_1 was administered by continuous intravenous infusion at a rate of 0.3 to 0.4 µg/kg/min immediately after the baby delivered. In group 2, PGE_1 was not administered. Measurements included the amount of blood loss and operating time. Blood samples were obtained from maternal radial artery before and after the induction of anesthesia, 1, 3 min after the surgery started and 1, 3, 5, 10 and 20 min after the delivery. The plasma concentrations of epinephrine and norepinephrine were determined with high performance liquid chromatography. Statistical analysis was performed using the Student's t test.

Results: The means of blood loss and opereting time were significantly less in group 1 than in group 2. The changes of plasma epinephrine levels are summarized in the figure.

Figure Mean Changes of Plasma Epinephrine Levels



There was no significant difference in norepinphrine changes between the two groups.

Conclusion: We conclude that the continuous infusion of PGE_1 may be useful after the delivery in prevention of excessive blood loss and increase of blood pressure because of its uterine-contractive and hypotensive actions[2,3].

References
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2. Acta Physiol Scand 60:170-180, 1964
3. Arch Int Med 133:56-76, 1974