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Title : POSTPARTUM EPIDURAL NARCOTIC ANALGESIA
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Introduction. Epidural placement of narcotic drugs has been reported to provide prolonged analgesia with a minimum of significant side effects (1,2). This is a report of an on-going study of epidural narcotic use in postpartum patients.

Methods. The Institutional Review Board approved this study and consent of each patient was obtained. Following completion of delivery and regression of local anesthetic effect, narcotic drugs without preservatives were diluted in saline and injected into the epidural space via the previously placed epidural catheter. The patients were divided into cesarean section and primiparous vaginal delivery groups as appropriate, and random selection of meperidine or morphine was made. Patients receiving meperidine were randomly selected for the addition of epinephrine 1:200,000 to the injected solution. Within groups, dosage and volumes were kept constant, as shown in the Table. The patients were observed for onset and duration of analgesia, with duration being taken as the time when the patient noted significant discomfort or requested analgesics. Quality of analgesia was assessed using a simple 0-3 scale, 0 being absence of pain. Presence and distribution of cold sensation and pin prick was noted, as well as any other motor or sensory deficiencies. Any other untoward effects were noted.

Results. Results (Table) indicate onset and duration of analgesia obtained for the drugs and doses used. Analgesia was considered good to excellent in all groups. The addition of epinephrine 1:200,000 significantly prolonged the duration of analgesia of meperidine. We have confirmed that cold and pin prick sensation is reduced in a segmental distribution with the doses used. No motor blockade was noted, and patients were generally aware of bladder sensation and were able to void. Pruritus was noted in three patients receiving morphine sulfate 8mg. Nausea and vomiting occurred in two postcesarean section patients.

Table.

Results of Epidural Meperidine and Morphine

<u>Cesarean Section Group</u>		Total Volume	Onset Time Mean (min.)	Duration (hrs.) Mean \pm S.D.	n
Drug	Dose				
Morphine Sulfate	8mg	15ml	15	21.33 \pm 6.65	9
Meperidine	60mg	15ml	8	3.47 \pm 0.2	6
Meperidine \bar{c} Epinephrine	80mg	15ml	8	5.42 \pm 0.7	3
<u>Primiparous Vaginal Delivery Group</u>		Total Volume	Onset Time Mean (min.)	Duration (hrs.) Mean \pm S.D.	n
Drug	Dose				
Morphine Sulfate	5mg	10ml	12	21 \pm 8.5	3
Meperidine	50mg	10ml	8	4.25 \pm 1.5	4
Meperidine \bar{c} Epinephrine	50mg	10ml	8	6.4 \pm 2.0	2

Discussion. This study has demonstrated that the above doses and volumes consistently produce suitable and effective analgesia, with good patient and obstetrician acceptance. With the doses used, duration of analgesia was a function of the particular drug. The addition of epinephrine to meperidine did prolong its activity. Results in another study showed that the addition of epinephrine to morphine sulfate did not prolong analgesia. We have no evidence for sympathetic or motor blockade in these patients. The segmental distribution of loss of cold sensation has not been previously reported.

Reference.

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