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# FOETAL OUTCOME IN EPIDURAL ANALGESIA FOR PAINLESS LABOUR

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## INTRODUCTION

The torture and pain which women frequently endure while in labour, is beyond description and seems to be further than what mortal nature will be suitable to bear under any other circumstance. James Simpson described the first obstetric analgesia 150 times agone

Although not without pitfalls epidural analgesia is the gold standard for pain relief in labour. There are lateral goods serious, and so serious, attached to all procedures carried out in medical practice and threat to advantage rate with each of these procedure is the major determinant of its durability. Epidural analgesia, with lower attention videlicet " ambulating EPIDURAL " where ambulation is possible is lately getting popular.

## AIM

1. To assess the effect of epidural analgesia on fetal outcome.

## MATERIALS AND METHODS

This experimental study was done in a tertiary care hospital in Tamil Nadu. Forty parturients were included in our study.

## GROUP A

20 Parturients who were administered epidural analgesia for pain relief.

## GROUP B

20 Parturients who received no form of pain relief.

## INCLUSION CRITERIA

• Spontaneously labouring mothers

• Single term cephalic foetus.

• Cervix 3 to 4 cm dilated.

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• Normal obstetric and medical history.

• No contraindication for epidural analgesia.

**EXCLUSION CRITERIA**

• If they have received an opioid drug preceding epidural analgesia.

• Malpresentation and multiple pregnancies.

• Previous history of miscarriages.

• Major degree of CPD.

**TECHNIQUE**

**All women fulfilling the inclusion criteria were identified, and the study was explained. If they agreed, they were allotted to group A. If they refused, they were allotted to group B. A written consent duly signed by the patient was obtained.**

**BASELINE PARAMETERS such as**

• Pulse rate

• Blood pressure

• Respiratory rate

• Visual analogue pain scale

• O2 saturation

• Foetal heart rate were assessed.

An initial bolus of 10ml of the study solution containing 0.1% bupivacaine with 2mcg per ml of fentanyl was administered.

The maternal heart rate, blood pressure, respiratory rate, SpO2, foetal heart rate, VAS, sensory level and motor level were assessed every 2 minutes for the first ten minutes and thereafter every 5 minutes till 30

minutes and then every 30 minutes till next topup. The time of onset of painless contraction was noted. The establishment of epidural blockade was identified by loss of pinprick sensation. VAS scoring was performed every 30 mins after each topup till the end of delivery.

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## RESULTS

**Table 1: Baseline characteristics of study participants**

| Parameter | Group A n=20 | Group B n=20 | P value |
|---|---|---|---|
| Age | 21.33±1.86 | 21.05±1.77 | 0.500 |
| Height | 156.48 ± 4.27 | 156.78 ± 4.15 | 0.751 |
| Weight | 59.88 ± 5.36 | 58.83 ± 6.02 | 0.413 |
| Gestational age | 37.53 ± 0.88 | 37.42± 0.78 | 0.592 |
| Cervical dilatation | 3.25 ± 0.44 | 3.23 ± 0.42 | 0.796 |
| Base line VAS | 6.95 ± 1.01 | 6.80 ± 1.5 | 0.754 |
| Pulse rate | 90.9 ± 0.32 | 106 ± 1.36 | 0.00 |
| Systolic B.P | 120.6 ± 11.86 | 135.1 ± 2.62 | 0.00 |
| Diastolic B.P | 74.2 ± 3.21 | 79.2 ± 2.51 | 0.00 |
| FHR | 140.1 ± 0.76 | 140.9± 0.80 | 0.5267 |
| Labour natural / labour natural with episiotomy | 16 | 16 | 1.0000 |
| Forceps | 2 | 2 | 1.0000 |
| Caesarean section | 2 | 2 | 1.0000 |
| APGAR score | | | |
| <7 | 0 | 1 | |
| 7 - 10 | 20 | 19 | |

## DISCUSSION

In our observation, No significant difference was noted between the two groups.

This was achieved by ensuring avoidance of maternal complications like hypotension or aortocaval compression by use of a wedge and cardiotocogragh monitoring.

Except for the new born in group B which had a Apgar of 6 , all the others had Apgar of greater than 7 .This is consistent with the finding of many authors, who have argued that a prolonged second stage is not associated with low Apgar, low cord blood pH, as long as the electronic foetal monitoring is employed, maternal analgesia and hydration are maintained. This was comparable with the study of Chestnut et al., 1990 (6).

The commonest side effect reported in our epidural group is urinary retention (65%). In 1988, Chestnut et al., also reported an incidence of 63% of urinary retention in mother in epidural group. Pruritus was seen in one case only. Variable incidence of pruritus have been reported by many authors like Chestnut et al., and Cohen et al.,

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None of the cases had Respiratory depression. Even in U.K where epidural is widely used, so far, there has been only one case report of Respiratory depression with use of opiates in epidural analgesia.

## CONCLUSION

Low dose epidural analgesia provides effective pain relief during labour with ambulation. Active management of labour with oxytocin acceleration in the second stage and administering low dose epidural analgesia do not prolong the second stage markedly and decrease the rate of operative deliveries. Though there may be increase in the duration of labour with epidural analgesia, the risk of this to the parturient and the foetus is negligible.

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