

2. Abstract

A study on Epidural analgesia compared to intramuscular Pethidine analgesia in labour

Objective: To compare epidural analgesia and intramuscular pethidine with respect to, effectiveness of pain relief, duration of labour, incidence of obstetric interventions and malpositions, maternal complications and neonatal outcome.

Design: Prospective interventional study.

Setting: In a busy tertiary care center in Sri Lanka.

Study population: One hundred uncomplicated primigravidae were recruited.

Method: In the epidural group, a test dose of 0.5% bupivacaine was given followed by 0.125% bupivacaine and 1% fentanyl as an infusion until delivery. Top-ups with 0.25% bupivacaine were given for break through pain.

In the pethidine group, patients received intramuscular pethidine in a dose of 1mg/kg. Repeated doses were given for break through pain after considering progress of labour and time interval from the first dose.

Effectiveness of pain relief was assessed using visual analogue score. Duration of labour, mode of delivery and fetal outcome were noted.

Results: Patients in epidural group had more satisfactory pain relief during all stages of labour compared to pethidine group ($p < 0.001$). There was no difference in total duration of labour however the second stage was significantly prolonged in epidural group ($p < 0.001$). There were no significant differences in obstetric interventions (7 in epidural and 10 in pethidine). Hypotension and numbness of legs were mainly seen in Epidural group while incidence of vomiting, sedation and break through pain lower in this group. Neonatal outcome was similar in both groups.

Conclusions: Epidural analgesia was more effective in providing pain relief during all stages of labour. Apart from prolongation of second stage of labour there were no significant maternal or fetal complications associated with epidural analgesia compared to intramuscular pethidine.