

Objectives

Pethidine is one of the synthetic opioids, which is commonly used for labour pain relief because of its ease of administration, cheap and readily available.

The aim of the study is to assess the effect of intrapartum pethidine administration on the fetal heart rate pattern and neonatal outcome.

Methods

This is a prospective observational study done on forty low risk uncomplicated pregnancy at term in the first stage of labour.

The study was done in the labour suite in Hospital Tengku Ampuan Afzan Kuantan, Pahang, Malaysia from October 2011 to January 2012.

Intramuscular Pethidine 1mg/kg was given as intrapartum analgesia at cervical dilatation of 4 cm or less followed local practice to all consented patient with clear liquor and normal baseline fetal heart rate(20 minutes before administration).

Intrapartum fetal heart rate pattern of all patients were reviewed after one hour post pethidine administration by continuous centralized cardiotocograph (CTG) monitoring.

Neonatal outcome in term of Apgar Score, requirement for pethidine antidote, admission to intensive neonatal care unit(NICU), ventilation support were reviewed and assessed by obstetric team, and by neonatology team(if indicated).

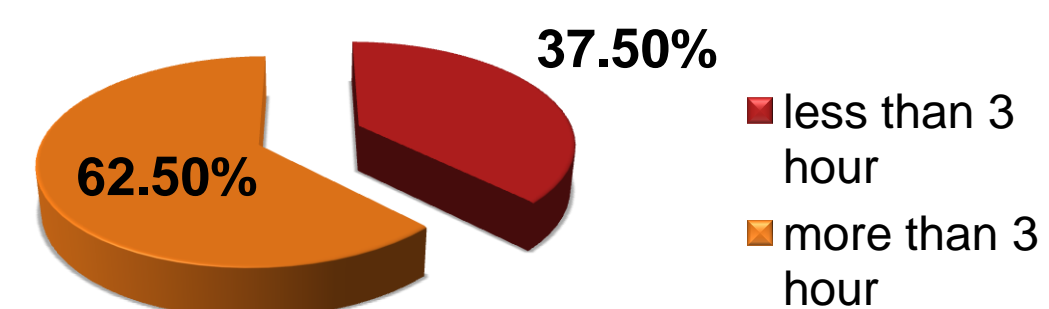
Data analysed by SSPS 17.0.

Results

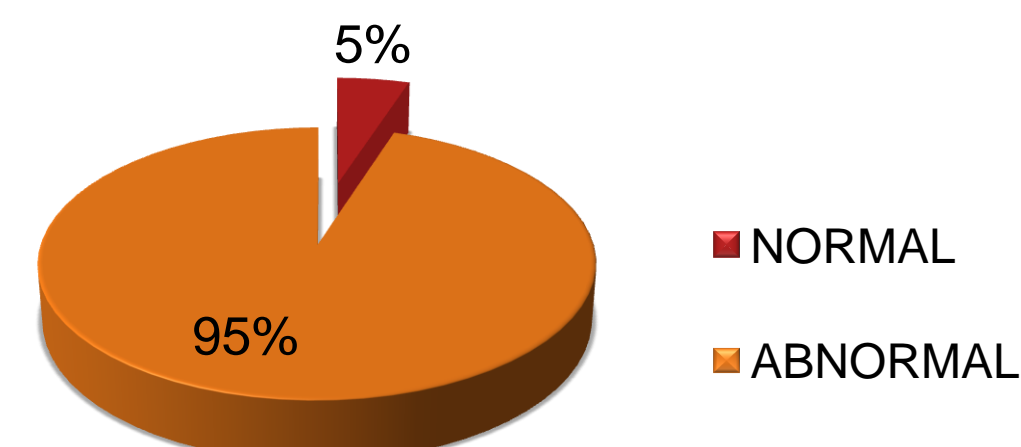
Total of 40 patients were recruited to this study with mean age of 27.9 ± 6.03 years and mean gestational age of 39.0 ± 0.81 weeks.

The mean duration from pethidine administration to delivery is 285.5 ± 178.9 minutes (4 hours and 45 minutes).

Out of 40 patients, 25(62.5%) delivered within 4 hours and 15 (37.5%) delivered after 4 hours from pethidine administration respectively.

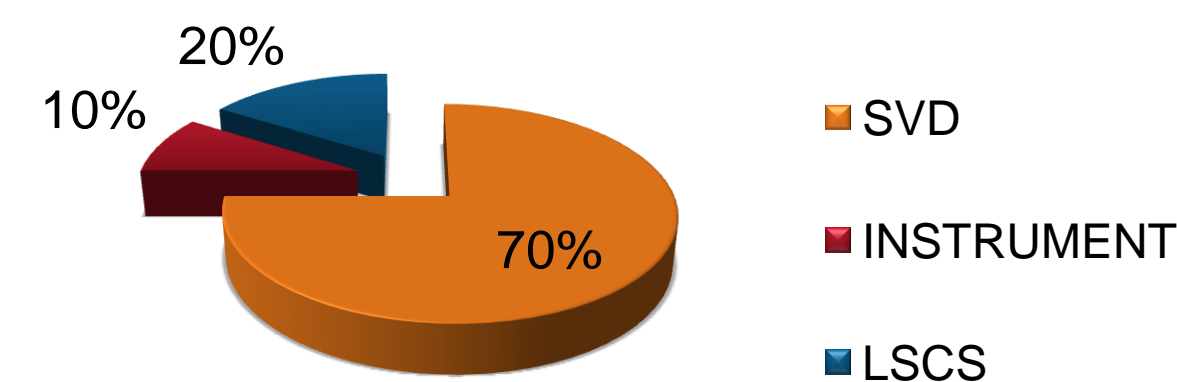


Two case(5%) out of the total 40, had suspicious CTG 1 hour post pethidine administration, first one with absence of acceleration and the second with early deceleration which lasted for 45 minutes and one hour respectively.

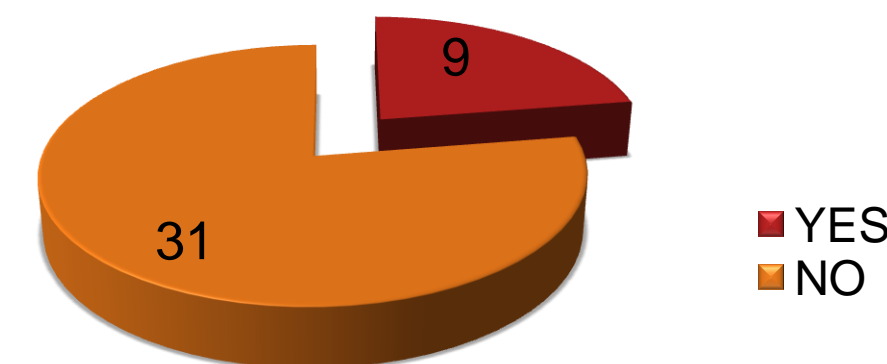


Results

Out of 40 recruited patients, 28 (70%) cases had normal vaginal delivery. Eight(20%) cases required abdominal delivery ; 6 due to poor progress, 1 failed induction and another 1 for fetal distress based on thick meconium stained liquor after four hours in labour. Another 4 (10%) cases had assisted delivery due to prolonged second stage of labour.



All neonates delivered with good Apgar Score, 8 at 1 minute and 9 at 5 minute. A total of 9 (22.5%) cases were admitted to the Neonatal Intensive Care Unit (NICU). Seven (17.5%) cases were admitted for observation because of delivery less than 4 hours after pethidine administration, following the neonatal protocol at our centre. Two (5%) cases were admitted for G6PD.



Neither required ventilation nor antidotes. All of them were discharged to mother after 24 hours apart from those admitted because of G6PD.

Conclusions

Intrapartum pethidine is still an analgesic option which is simple, cheap and easily available without major effect to the fetal heart rate pattern and the neonatal outcome.

References

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