



Efficacy of Intramuscular Tramadol Injection as Labour Analgesic and Labour Accelerator in Latent Phase of Labour and Mode of Delivery

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ABSTRACT

To prove the efficiency of Intramuscular Tramadol injection as labour analgesic and labour accelerator in latent phase of labour and mode of delivery. This is a prospective observational study done during Oct 10 to Sep 11. 100 pregnant women who were booked in this hospital. Out of 100 patients, 26 % had mild pain relief, 38% had moderate pain relief and 36% had no pain relief. Mean duration of I stage was 256.09 minutes and II stage was 25.54 minutes. Mode of delivery – normal delivery was 88.1% and LSCS was 9.1%.

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Introduction

Labour pain is due to physiological, psychological excitatory and inhibitory complex interactions. Normal labour is series of events which results in expulsion of products of conception at term via naturalis of spontaneous onset of singleton vertex presentation.¹ Painless labour is usually preferred by every mother and it has positive influence on the course of labour. Epidural analgesia is been popularly used in western countries but it has limitations in India due to lack of trained staff and monitoring facilities. Intramuscular Tramadol has been used because of its convenience of administration and good, faster administration.

Pain is an unpleasant emotional and sensory experience. It is of two types. Acute and Chronic. In 1847, Ether was introduced as first obstetrical anaesthetic agent by James Young Simpson.² In first stage of labour, perception of pain begins with nociceptive stimuli from mechanical and chemo receptors in cervix and uterus.³ In later stages repeated contraction produces myocellular injury which releases histamine, serotonin, bradykinin, substance P, potassium ions and acetylcholine which stimulates chemical nociceptors.⁴ Pain score is recorded by patients history. The pain score should be reliable, valid. Dolorimeter is used to measure pain.⁵

Methods

This study is a prospective observational study done in the Dept of Obstetrics and Gynaecology in Bharatha Ratna Dr B.R. Ambedkar Medical College & Hospital, Bangalore, over a period of 1 year from Oct 2010 to Sep 2011. About 100 term gestation women who were in latent phase of labour admitted to labour ward taken into the study. Details of the each women, degree of pain relief, duration of each stage of labour and mode of delivery were assessed at the end of each delivery.

Results

In this study, out of 100 women, mean age of patients belongs to 21-25 y (53%), Parity distribution about 58(58%)

were primi and 42(42%) were multiparous. 26 % had mild pain relief, 38% had moderate pain relief and 36% had no pain relief. Period of gestation between 37-39 weeks were 47(47%) and 40-42 weeks were 53(53%), Mean duration of I stage was 256.09 minutes and II stage was 25.54 minutes. Mode of delivery – normal delivery was 88.1% and LSCS was 9.1%.

Discussion

An ideal method for pain relief should combine safety for both mother and fetus. The present study was designed to evaluate efficacy of IM Tramadol in latent phase of labour. The patients were standardized and compared regarding degree of pain relief duration of labour, and mode of delivery. In this study mean age of patients belongs to 21-25 y (53%). The difference in age group was not significant (p= 0.799). In some other study done by Thakur Ratna et al (2004), the mean age was 22 years.

In this study parity distribution about 58(58%) were primi and 42(42%) were multiparous. Period of gestation between 37-39 weeks were 47(47%) and 40-42 weeks were 53(53%). The variation in gestational age was not significantly significant (p= 0.087). The mean period of gestational age was 39 weeks in the study done by Sudha Patil et al (2014). In this study, 26 % had mild pain relief, 38% had moderate pain relief and 36% had no pain relief. In the study done by Thakur Ratna et al (2012) 16% had mild pain relief, 55% had moderate pain relief and 16% had no pain relief. The variation was statistically significant (p< 0.0001).

In this study, Mean duration of I stage was 256.09 minutes and II stage was 25.54 minutes. In the study done by Khooshideh M Alishahriari (2009) mean duration of I stage was 140 minutes and II stage was 25 minutes. The variation was statistically significant (p< 0.0001).

In this study, Mode of delivery – normal delivery was 88.1% and LSCS was 9.1%. In the study done by O Kuti et al (2008) normal delivery was 88%, LSCS was 9.5% and instrumental delivery was 2.4% and was significant.

Conclusion

Intramuscular Tramaol injection is effective in pain relief and it also shortens the duration of first and second stage of labour. Injection Tramadol didn't cause any major side effects in either mother or fetus and also no major increase in LSCS.

Conflict of interest: The authors declare that there are no conflict of interest

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