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STUDY TO COMPARE THE EFFECTS OF VALENTHEMATE BROMIDE INJECTION BY DIFFERENT ROUTES ON UTERINE CONTRACTION, DURATION OF THIRD STAGE OF LABOUR AND BLOOD LOSS DURING VAGINAL DELIVERY IN PRIMIGRAVIDA

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ABSTRACT

Aims and Objectives:- To study the effects of valenthemate bromide injection by different routes on uterine contraction, time spent in third stage of labor and blood loss during vaginal delivery in primaigravida. **Material and Methods:-** Study was carried out on pregnant ladies (without any complications) admitted for delivery in department of Gynecology B. R. D. Medical College Gorakhpur. The ladies were divided in to three groups. Group A received saline, group B received epidosin intramuscularly while group III received epidosin intravenously and uterine contraction, duration of third stage of labour and blodd loss during vaginal delivery in primigravida was noted. **Results:-** The difference in duration of third stage of labour was not significant statistically in all the three groups. Mean rate of cervical dilatation was 0.91, 1.48, 2.16 cm/hour in groups I, II, and III respectively. There was no significant adverse finding including blood loss. **Conclusion:-** The mean duration of third stage of labour is not altered significantly by injection of epidosin.

KEYWORDS: Epidosin, third stage of labour, routes, blood loss.

INTRODUCTION

Delivering a healthy child through vaginal delivery is a process which is involed with lots of pain and discomfort.. This leads to development of fear and apprehension in primigravida. It may lead to adverse consequences of delivery. Valenthamate has been in use for facilitating the vaginal deleviery process. The Valenthemate is a spasmolytic agent. Preclinical studies have shown the favourable results in reducing the duration of labor. However there are very few clinical data related to the epidosin use and especially related to the effect by using different routes. Therefore present study has been planned to know the effect of epidosin on the duration of third stage of labour, haemorhage, and complications in primigraivda.

MATERIAL AND METHODS

The study was conducted on patients admitted in the labour room in department of Obstetrics and Gynaecology of Nehru Chikitsalaya, B. R. D. Medical College Gorakhpur. The study was approved from the institutional ethics committee. The total duration of study was of eighteen months. A total of 150 uncomplicated primigravidae with gestational age of more than 37 weeks were screed for inclusion and exclusion criteria. Written informed consent was taken before inclusion in the study. The inclusion criteria were full term cases (duration of pregnancy at least 37 weeks completed), cervical dilatation 3-4 cms, regular uterine contractions with frequency of 2-3 contractions every 10 minutes and cephalic presentation. Exclusion criteria were patients with premature labour, uterine inertia, cephalo-pelvic disproportion, polyhydramnios, multiple pregnancy, associated medical, surgical or obstetrical complications. Patients were randomly divided in to three groups. Control group (group I) was treated with normal saline. Group two received epidosin 1ml by intramuscular route every half hour for 3 doses. Group three pregnant ladies received epidosin 1ml intravenously every thirty minutes for 3 doses. A complete general, systemic and local examination was done. The relevant investigations including hematological, renal, V.D.R.L. and blood groups and Rh typing were performed to know the significant variations among the ladies. Those who showed abnormal results were excluded from the study. Fundal height , presentation, lie, uterine contractions and foetal heart rate were observed. Per-vaginal examination was done under perfect aseptic conditions and findings were noted. The presentation, position, station of head, absence of cephalopelvic disproportion and presence of membranes were confirmed. Cervix was studied in detail with special reference to consistency, dilatation, effacement and position. The data were analyzed by using unpaired student ‘t’ test and $p<0.05$ was considered as statistically significant.

RESULTS

A total of 150 pregnant ladies (age group 22 to 26 years) were observed during this study. Most of the females were belonging to lower socioeconomic strata in all the groups. The distribution of cases in all the groups according to gestational age at the time of admission is presented in **table.1** Comparison of duration of third stage of labour has been presented in **table.2.**

Table1: Distribution of cases in all the groups according to gestational age at the time of admission

Gestational age in weeks	Control group	Intramuscular group	Intravenous group
37	04	04	06
38	10	16	14
39	20	14	18
40	14	14	10
41	02	02	02
Total	50	50	50
Mean± SD	39±0.98	38.6±1.05	38.7±1.03

Table 2: Comparision of duration of third stage of labour

Group	Total cases	Range (Minutes)	Mean (Minutes)	±S.D
Control	50	10.5 to 15.4	13.04	1.77
Intramuscular	50	11.6 to 15.9	133.7	1.49
Intravenous	50	11.5 to 15.9	134.4	1.65

The results show that the mean time period of third stage of labour in control group was not statistically significantly different among the groups when compared with that of control group.

DISCUSSION

The aim of obstetricians is to facilitate the process of delivery. This may require manual assistance, surgical as well as medical. The medical assistance is to reduce the time duration of different stages of labour and reduction of hemorrhage. Number of indigenous and synthetic compounds have Dibeen tried to achieve these aims and objectives. Valenthemate bromide is a spasmolytic agent and has shown reduction in time duration of different stages of labour in studies. The findings of present study suggest that there is no significant reduction in stage II and III when delivery is assisted by epidosin. There was also no significant difference between the group II and III. The mean duration of stage II and III were

45 minutes and 13 minutes respectively. The blood loss during the vaginal delivery was also not different significantly. The mean rate of cervical dilatation was 0.91 ± 0.53 cm/hour in control group, 1.48 ± 0.73 cm/hour in intramuscular group and 2.1 ± 1 cm/hour in intravenous group. There was 73.5% more increment in rate of cervical dilatation in intravenous groups. When intramuscular and intravenous groups were compared with each other, the rate of cervical dilatation was increased by 0.68 cm/hour (46%) ($P<0.05$). Commonest side effects were transient tachycardia, dryness of mouth, vomiting and flushing of skin. There were no maternal morbidity, and mortality. The findings are suggestive of effectiveness of use of epidosin in enhancing the cervical dilatation as compared to the control group. The intravenous injections are more effective in reducing the duration as compared to intramuscular route without significant increase in side effects.

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