

EFFECTS OF DOUBLING OXYTOCIN INCREMENTAL INTERVAL FOR INDUCTION LABOUR AT TERM.

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BACKGROUND

► Induction of labour is one of the most important interventions in obstetrics practice¹. It is a common practice in both developed and developing countries². It is a life-saving intervention aimed at preventing foetal and or maternal complications which may arise in some clinical conditions where further prolongation of pregnancy has become life threatening^{1, 3}. Therefore, it is indicated when the benefits to either the mother or foetus are more than those of pregnancy continuation

► OBJECTIVE

To compare the effectiveness and safety of 60-minute and 30-minute oxytocin incremental intervals use for induction of labour in women of low parity at term.

► DESIGN

Randomized controlled trial.

► Also, the labour outcome was comparable in the 60-minute and 30-minute group (90.1% versus 86.0% respectively had vaginal delivery), with no statistically significant difference (P= 0.583). Intrapartum complications although less in 60-minute group, was comparable with the 30-minute group (9.4% versus 21.9%; P= 0.802).

► Similarly, the postpartum complications of 1.6% in the former versus 4.7% in the latter was not significant (P= 0.800). The mean Apgar score at 5th minute of 9.5 for the former and 9.4 for the latter were comparable (P= 0.064). The degree of satisfaction was higher in the 60-minute group, though not statistically significant (P= 0.263).

RESULTS

► There was no significant difference between the 2 groups in terms of mean age (29.4±4.1 years versus 29.1±4.1 years), mean parity (1.6±1.0 versus 1.7±0.9), mean Bishop’s score (7.6±0.8 versus 7.8±0.8), mean gestational age (39.4±1.7 weeks versus 39.7±1.9) and commonest indication for induction, postdatism (39.1% versus 42.2%) was comparable in both groups.

► The induction to onset of labour interval was comparable (96.62±21.7 versus 89.5±21.7 minutes for the 60-minute and 30-minute group respectively), with no statistically significant difference (P= 0.117). The induction delivery interval was also comparable ((479.8±38.7 versus 484.9±31.2 minutes for the 60-minute and 30-minute group respectively), with no statistically significant difference (P= 0184)

METHODOLOGY

128patients eligible for induction of labour were randomized into a 30-minute and a 60-minute incremental interval groups, with each made up of 64patients. Each group was induced with oxytocin base mixture of 5IU oxytocin in 500mls of Ringer’s lactate. This was administered via programmable intravenous infusion pump. The starting dose was 4mU/min and increased every 30minutes and 60minutes for the 30-minute and 60-minute incremental groups respectively, until adequate uterine contraction was achieved or a maximum dose of 32mU/min was reached.

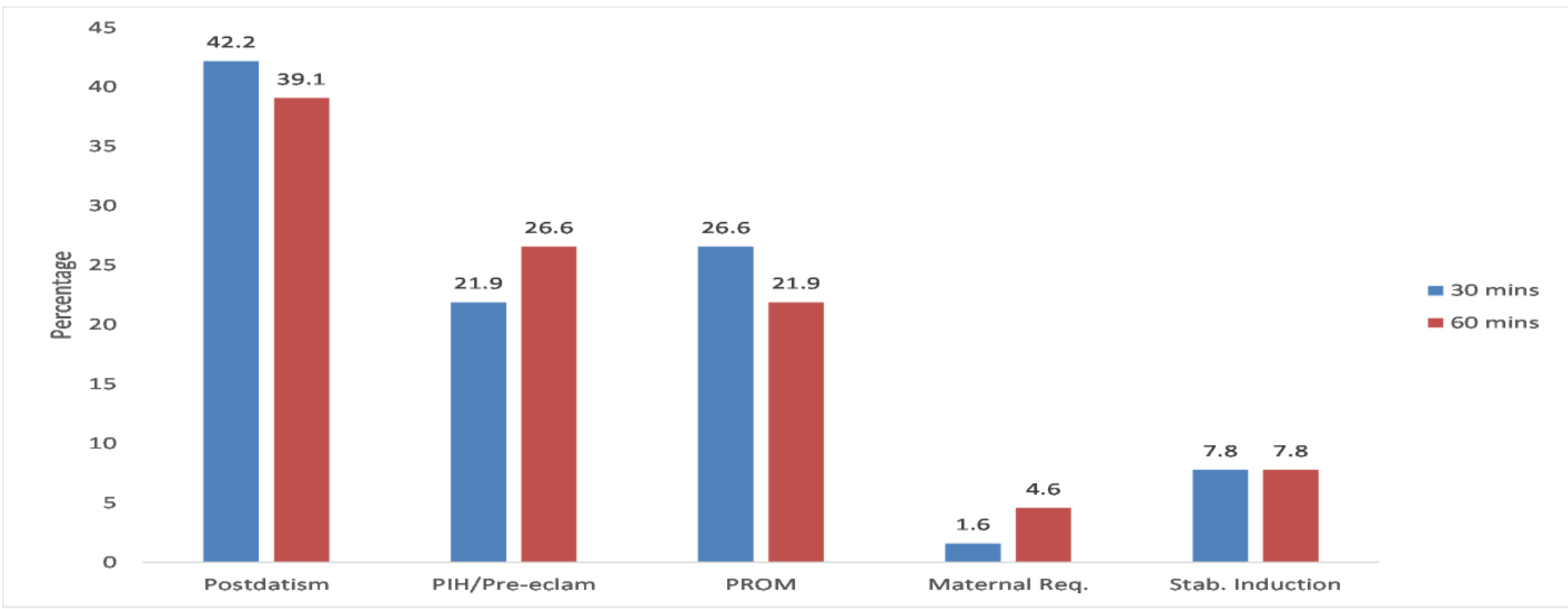


Figure1.A Bar Chart Showing the Indication for Induction of Labour in each group

Variable	60 minutes N = 64 (%) Mean ± SD	30 minutes N = 64 (%) Mean ± SD	t	p – value
Induction- onset of labour interval (min)	96.62 ± 21.7	89.5 ±21.7	-1.578	0.117
Induction delivery interval (vaginal delivery only)	479.76± 38.7	484.9 ±31.2	-1.537	0.184

t = Independents samples t-test applied

► In both groups, labour was monitored with modified World Health Organization partograph and abnormal parameters in labour were treated appropriately with standard obstetric intervention(s).

► Effectiveness and safety of both regimens were determined by assessing the induction onset of labour interval, induction delivery interval, delivery outcome and perinatal outcome.

► A structured proforma was used to obtain relevant data of the patient. The generated data were analyzed with Statistical Package for Social Sciences (SPSS) version 22.

CONCLUSION

► This study shows that both the 60-minute and 30-minute incremental intervals are equally effective and safe methods of oxytocin infusion for induction of labour in term pregnancies in low parity women. However, the 60-minute incremental regimen appears to reduce the risk to both the mother and the foetus, in addition to having a better degree of patient satisfaction.

1.References

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