

COMPARISON OF INDUCTION-DELIVERY INTERVAL IN PATIENTS INDUCED WITH ENDOCERVICAL PGE₂ GEL AND I.V. OXYTOCIN

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SUMMARY

In a comparative study of induction-delivery interval following induced vaginal deliveries of 85 patients (44 patients with PGE₂ and 41 with I.V. Oxytocin), it was found that the induction delivery interval in primigravidae was 11 ± 2.66 hrs. in PGE₂ and 13.8 ± 4.79 hrs. in I.V. oxytocin group, which is statistically significant ($P < 0.05$). This is inspite of the fact that PGE₂ group had lower mean Bishop score (3.9) as compared to mean Bishop score of 5.1 in oxytocin group in primigravidae before induction.

INTRODUCTION

Induction of delivery is one of prime concern of obstetricians. There are several methods. Recently local PGE₂ is preferred over other methods as the complications and side effects are less (Yongyoth H. et al, 1988). The aims of present study is to see efficacy of endocervical PGE₂ as compared to I.V. Oxytocin.

MATERIAL AND METHODS

A total 100 patients were studied in two groups, A & B, well matched in terms of age, period of gestation, economic status and parity during August, 1992, to September 1993. All cases had cephalic presentation. In group A, labour was induced by endocervical PGE₂ gel (0.5 mg PGE₂ in triacitin base) instilled under aseptic precautions and in groups B, induction was done with I.V. Oxytocin (Escalation method) after Bishop's scoring. Progress of labour was noticed by seeing

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the descent of head, shift of FHS and dilatation of cervix by Bishop's scoring. Induction was considered as failed if labour did not progress significantly within 24 hours as seen on partogram. A second dose of PGE₂ gel was instilled after 24 hrs. if there was no onset of labour. In case of group II drip was stopped on 1st day & then started again the next day if conditions were favourable

Table I

Showing the distribution of induction delivery interval in primigravid patients in both group

Induction-delivery interval (hours)	PGE ₂ gel Group		I.V. Oxytocin Group	
	Number	Percentage	Number	Percentage
1. 3-8	6	30	3	14.28
2. 8-13	7	35	7	33.32
3. 13-18	6	30	6	28.56
4. 18 and above	1	5	5	23.80
Mean ± SD	11 hrs ± 2.66		13.8 hrs. ± 4.79	
t = 2.03	P .05			

Table II

Showing the distribution of induction-delivery interval in multiparous patients in both groups

Induction-delivery interval (hours)	PGE ₂ gel Group		I.V. Oxytocin Group	
	Number	Percentage	Number	Percentage
1. 3-8	14	58.33	7	35
2. 8-13	5	20.83	7	35
3. 13-18	4	16.66	4	20
4. 18 and above	1	4.16	2	10
Total	24		24	
Mean ± SD	8.8 hours ± 4.48		10.75 ± 4.86	
t = 1.35,	P 0.05			

Table III
Bishop scoring in primigravid patients in both groups

Bishop score	Group I (PGE ₂)		Group II (Oxytocin)	
	Number	Percentage	Number	Percentage
1. 2-5	20	86.96	14	53.84
2. 6-8	3	13.04	12	46.16
3. 9 to 10	0	0	0	0
Total	23	100	26	100
Mean B.S.	3.9		5.1	

Table III
Bishop scoring in primigravid patients in both groups

Bishop score	Group I (PGE ₂)		Group II (Oxytocin)	
	Number	Percentage	Number	Percentage
1. 2-5	22	81.46	13	54.15
2. 6-8	5	18.51	11	45.82
3. 9 to 10	0	0	0	0
Total	27		24	
Mean B.S.	5.09		5.10	

and immediate vaginal delivery was not indicated. 85 patients in the study delivered vaginally. Induction delivery interval was noted carefully and side effects and complications were also noted.

OBSERVATION AND DISCUSSION

In our study, the difference in induction delivery interval in primigravidae was statistically significant ($P < 0.05$) in PGE₂

group then I.V. oxytocin group.

Here the mean induction delivery interval was 11 ± 2.66 hrs. in PGE₂ & 13.8 ± 4.79 hrs. in I.V. oxytocin group (Table I) in primigravidae patients, whereas it was $8.8 \text{ hrs} \pm 4.48$ & 10.75 ± 4.86 in multigravidas in group A & B respectively (Table II). The preinduction Bishop score was 3.9 & 5.1 in group A & B respectively in primigravidae compared

to 5.09 & 5.10 in multi gravidae in group A & B respectively. (Table III & IV)

Our findings are also almost similar to the findings of Klaus Goeschen (1989) & Yougyoth H. et al (1988).

CONCLUSION

It may be concluded the endocervical PGE₂ is a valuable alternative to I.V.

oxytocin for induction labour with minimal inconvenience & with better outcome to the patient as they can be ambulant.

REFERENCE

1. Klaus Goeschen: *Am. J. of Perinat.* : 6;2;1989.
2. Yongyoth H. & Pratak O-Prasertswat : *J. Med. Assoc. Thai* : 71;269;1988.