CERVIPRIME IN THE INDUCTION OF LABOUR

GAURANG S. DAFTARY • JESSE M. LEVI • SHIRISH N. DAFTARY

SUMMARY

The present study is based on use of cerviprime for induction of labour in 60 high-risk pregnant women. Cerviprime helped to improve the Bishop Score from 3.2 to 7.6, twenty-six (21.6%) women progressed into labour with cerviprime alone. PGE_2 and supplementation was used to maintain progressive labour in other cases.

The incidence of C. section was 20%. Nausea and occasional vomiting were the commonest side-effects encountered.

INTRODUCTION

Women's special health needs are intimately connected to their reproductive role. Safe Motherhood concept aims at providing the support systems to ensure satisfactory outcome of labour for the mother and her unborn child.

The High-risk approach helps to identify mothers in need of special care. Todays investigative procedures help to identify foetus at risk, so that clective termination of pregnancy coupled with neonatal care help to improve perinatal salvage.

Dr. Daftary's Total Care Clinic, Bombay.
Accepted for Publication on 22.11.1993.

MATERIAL AND METHODS

Sixty women with high-risk factors were selected for elective induction with cerviprime. The process of cervical ripening, active onset of Labour, progress of labour, and maternal and foetal outcome were studied in a private nursing home.

During the year August 1992 to August 1993, 512 cases were managed in a private maternity care set-up. All high-risk patients received close antenatal care, ultrasonographic monitoring and NST testing facilities were routinely available. All patients were personally managed by the authors.

RESULTS

The ages of the patients included in the study ranged from 24 years - 36 years, and the parity from 0 to three. The average Haemoglobin was 10.5 gms%. There were 4 Rh Negative patients, twenty-three patients were treated during pregnancy for intestinal amoebiasis and or helminthiasis. All patients routinely received Folic Acid 5.0 mgs. daily. Iron and Calcium tablets, protein supplements and Immunization against tetanus.

The High-risk factors in the sixty patients studied in the present series are outlined in Table I.

It will be seen that 24 patients had placental insuffiency, of which 8 manifested IUGR prior to 36 weeks with deteriorating NST and Manning Score necessitating termination.

Twelve patients had pregnancy prolonged beyond 42 weeks, eighteen patients had previous history of abortions, stillbirth or difficult delivery when the baby died. There were two elderly primigravidae (over 35 years age) and 4 women with gestational diabetes.

Cervical Ripening : All the sixty patients selected for induction of labour were not in labour at the time of inclusion in the study. The patient was examined vaginally and thereafter after introducing the speculum under a good light, cerviprime gel was instilled into the cervical canal as per instructions given. The patient was then kept lying down for about half an hour and watched carefully in the ward for the next 12 hours. The change in Bishop score after 12 hours was noted. All patients who had gone into labour were given a score of 10 for analysis of results of cervical ripening. The results were compared to those by other authors as shown in Table II.

Cerviprime is preferably applied the night before elective induction. The changes commence within 6 hours and the maximum benefit is achieved within 12 hours.

If the patient has not already commenced labour, oral PGE_2 0.5 mgs. every

Table I

High-risk Factors

	High-risk Factor	No. of cases	% Distribution
1.	Placental Insufficiency (After 36 wks. gestation)	16	26.6%
2.	Post-datism (over 2 weeks)	12	20.0%
3.	Diabetes	4	6.6%
4.	Elderly Primigravidae (Over age 35 years)	2	3.3%
5.	B.O.H.	18	30.0%
6.	I.U.G.R. (before 36 weeks)	8	13.2%
		60	99.7%

hour usually suffices. In case the response is not satisfactory, the oral dose can be increased to 2 tabs / hourly until the patient is in well established labour.

Clinical Progress after ceviprime

Twenty-four patients experienced some backache and or hypogastric discomfort within 1 hour of introduction of ceviprime, and thirty-two more experienced cramping and backache within the next 5 hours. Four patients experienced no symptoms at all.

Table II

Change in Bishop Score after ceviprime

	Authors	Year	No. of patients	Bishop Score Before	After
1.	Floberg et al	1983	42	3.2	7.7
2.	Theiry et al	1984	40	3.4	6.6
3.	Cruz et al	1985	50	3.0	9.0
4.	Trofatter et al	1985	30	1.2	6.7
5.	Bernstein et al	1987	55	2.9	5.1
6.	Baveja R. et al	1988	221	3.0	6.0
7.	Bhide A. et al	1993	68	2.1	7.8
8.	Patki A. et al	1993	40	2.6	5.0
9.	Present Study	1993	60	3.2	7.6

Table III

Labour outcome

	Authors	No. of cases	Year	Labour Outcome Vag. Delivery	C. Section	
1.	Ekman et al	54	1983	52	2	3.8%
2.	Nimrod et al	15	1984	14	1	6.6%
3.	Ulmsten et al	19	1985	16	3	10.5%
4.	Sorensen et al	50	1985	41	9	18.0%
5.	Kristoffersen et al	25	1986	21	4	8.0%
6.	Wigvist et al	25	1986	19	6	12.0%
7.	Baveja et al	221	1988	178	23	12.9%
8.	Legarth et al	57	1988	48	9	18.7%
9.	EKMAN et al	25	1983	19	6	12.0%
10.	Present Study	60	1993	48	12	20.0%

Since the present group was a high risk group, the incidence of LSCS was 20%. In low-risk groups. the incidence is lower.

Complications : The following complications were encountered :

Table IV

Complications of Cerviprime

Complications	No. of cases	% Distribution
Hypertonus	3	5%
Nausea	18	30%
Vomiting	5	8.3%
Diarrhoea	3	5%
Flushing	1	0.8%

The above table shows that many patients to experience some degree of nausea, however, the incidence of other complications in indeed low, and not severe enough to warrant discontinuation of therapy.

Eighteen patients experienced some degree of nausea, and five patients experienced vomiting.

Twenty-six patients progressed into labour, and simple amniotomy was adequate to complete labour.

In 18 patients, Oral PGE_2 1 tablet every hour for a maximum of 6 tablets sufficed to induce smooth progressive labour.

In 12 patients, Oral PGE_2 dose was increased to 2 tablets hourly when they did not respond to the dose of 1 tablet hourly for 4 doses. In these, patients on an average 6 more tablets were required to secure satisfactory progressive labour. Four patients did not respond to PG treatment.

Cerviprime and outcome of Labour

It was observed that many patients responded favourably to cerviprime and delivered vaginally.

CONCLUSIONS

Cerviprime constitutes an acceptable method of successfully inducing labour, particularly in high-risk subjects, coupled with oral PG, successful cervical priming, induction and progress of labour can be ensured in the majority of cases. Many subjects who would have been otherwise submitted to an elective C. section can now be offered an induced labour as an alternative, thus lowering the rate of Caesarean deliveries in obstetric practice.

REFERENCES

1. *Baveja R., Bhattacharjee S.K., Coyaji K.J., Das S.K., Engineer A.D., Gogoi M.P., Hazara M.N., Kodkany B.S., Kochhar M., Krishna U., Misra P., Pallaniappan B., Srinivasan C., Kambo I., Gupta S., Kumar S., Saxena N.C. and Saxena B.N. : J. Obstet. and Gynec. India : 38:289:1988.*
2. *Bernstein P., Leyland N., Gurland P., Gare D. : Am. J. Obstet. and Gynec. : 156:336:1987.*
3. *Bhide A.G., Daftary S.N. : J. Obstet. and Gynec. of India : 43:729:1993.*
4. *Cruz A.S., Pinto J.M., Tavares J.M., Valerio and Cardoso C. : Europ J. Obstet. and Gynaec. Reprod. Biol : 20:331:1985.*
5. *Ekman G., Ulmsten U., Wingerup L. : Arch. Gynaecol. : 234:61:1983.*
6. *Ekman G., Forman A., Marsal K., Ulmsten U. : Am. J. Obstet. and Gynaec. : 147:657:1983.*
7. *Flobergd J., Allen J., Belfrage P., Bygdeman M., Ulmsten U. : Arch. Gynaec. : 233:225:1983.*
8. *Kristoffersen M., Sande H.A., Sande O.S. : Int. J. Gynaec. and Obstet. : 24:297:1986.*
9. *Legarth J., Guldback E., Scher N.J. : Eur. J. Obstet. and Gynec. Reprod. Biol. : 27:93:1988.*
10. *Nimrod C., Currie J., Yee J., Dodd G., Persaud D. : Obstet. & Gynec. : 64:476:1984.*
11. *Patki A., S. Mane, S. Lanke, Ganla K. Desai : Use oof oProstaglandin E2 for cervical ripening and Induction of Labour: J. Obstet. & Gynaec. of India : 43:928:1993.*
12. *Sorensen S.S., Brocks V., Lenstrup C. Obstet.*

and Gynaec. : 65,110,1985.

13. *Thiery M., Decoster J.M., Parewijck W., Noah M.L., Derom R., Van Kets H., Defoort P., Aertsens w., Debruyne G., De Geest K., and Vandekerckhove F. : Prostaglandins : 27:429:1984.*
14. *Troffater K.F., Bowers D., Gall S.A., Killam P. : Am. J. Obstet. & Gynec. : 153:268:1985.*
15. *Ulmsten U., Ekman G., Belfrage P., Bygdeman M. and Nyberg C. : Arch. Gynaec. : 236:243:1985.*
16. *Wiqvist L., Norstorm A., Wiqvist N. : Act Obstet. & Gynec. Scand : 65:485:1986.*