CERVICAL RIPENING WITH PROSTAGLANDIN IN WOMEN WITH PREVIOUS ONE CAESAREAN SECTION

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SUMMARY

Vaginal delivery after previous one caesarean section is now universally accepted, though there is reluctance to induce labour in a patient with unfavourable cervix. We studied 22 patients with previous one caesarean in whom prostaglandin E2 was used for cervical ripening, labour was augmented with oxytocin where required. 60% patients delivered vaginally. There was no case of hyperstimulation or uterine rupture. We conclude that intracervical prostaglandin E2 can be used effectively in women with previous one lower segment caesarean section.

INTRODUCTION

Vaginal delivery after previous one lower segment caesarean section (LSCS) is no longer considered unsafe.

Sometimes an unfavourable cervix may necessitate a high dose of Oxytocin, resulting in hypercontraction and an increased risk for uterine rupture. Therefore it seems reasonable to try to obtain favourable cervix for induction of labour in patient with previous scar.

Intracervical Prostaglandin (Pg) gel has been used in women with no uterine scar effectively (Ulmsten et al, 1979, Ulmsten et al 1982). There are few studies on use of intracervical prostaglandin in patients with previous caesarean section for cervical ripening (Normal et al 1992, Del Valle et al 1994).

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The aim of this study is to investigate if prostaglandin can be used safely for cervical ripening and labour induction in women with previous one LSCS.

MATERIAL AND METHODS

This retrospective study was conducted at All India Institute of Medical Sciences, Delhi, catering to high risk pregnancies.

Study group composed of 22 women with previous one LSCS, who underwent cervical ripening, and induction of labour. Control group consisted of 22 patients without a uterine scar.

Favourability of cervix was assessed by Bishop's score. Prostaglandin E2 gel 5mg was inserted in the endocervical canal during speculum examination, under aseptic condition. Patients were carefully monitered for progress of labour and fetal well being. Labour was augmented when required with oxytocin using ACOG guidelines, 1991. Induction delivery interval was calculated from time of onset of regular uterine contractions to delivery.

RESULTS

Mean induction delivery interval was 9.8 hrs in study group and 7.4 hrs in control group, well within accepted range. The induction delivery interval in study group was more than in controls, this can be explained on the basis that patients in control group had more previous vaginal deliveries (table 1). 60% of patients in the study group delivered vaginally. 9 patients in study group required caesarean section, of these

TABLE 1
DEMOGRAPHIC CHARACTERISTICS OF THE TWO GROUPS

	Study n=22	Control n=22
	(Mean values)	
Age in year	25.5	27.3
Gravidity	2.64	2.8
No. of previous vaginal deliveries	.23	1.22
Gestational age at first visit (weeks)	15	15
No. of prenatal visits	8	8.6

Not much difference in age, gravidity, gestational age at first visit and number of prenatal visits was observed in the two groups.

TABLE 2
BISHOP SCORE

Study (Mean values)	Control
4	4

Mean Bishop score same in both groups.

TABLE 3
OUTCOME

		Study n=22 (mean values)	Control n=22
1	Gestational age of birth (weeks)	38.8	38
2	Vaginal deliveries	13(60%)	18(82%)
	Induction delivery interval (hrs.)	9.8	7.4
3	Oxytocin (no. of patients)	5	4
4	Birth weight in (Kgs)	2.89	2.84
5	Caesarean section (no. of patients)	9	4

TABLE 4
INDICATION FOR LSCS

	Study	Control
Total no. of LSCS	9	4
Non progress of labour	4	2
Fetal distress	4	2
Abruptio	1	

TABLE 5
STUDIES SHOWING OUTCOME WITH Pg USE AFTER ONE CESAREAN

	Author	Year of patients	Total no deliveries	Vaginal
1	Mackenzie et al (Intravaginal PGE2)	1984	143	68%
2	Norman et al (Intracervical PGF2)	1992	30	63%
3	Del Valle et al (Intracervical PGE2)	1994	36	69.4%

4 were for non-progress of labour (table 4). In the control group, 82% of patients delivered vaginally. 4 patients required LSCS, 2 for non-progress of labour (Table 4).

DISCUSSION

Allowing vaginal delivery after one LSCS is no longer controversial, (ACOG 1988) though there is reluctance to induce labour in women with previous LSCS and unfavourable cervix.

Recent studies have shown the efficacy of prostaglandins for cervical ripening in women with previous caesarean delivery.

Table 5 shows several studies in which Pg was used for cervical ripening or induction of labour. None of the studies reported any case of uterine rupture or scar dehiscence.

In our study 60% of women delivered vaginally, comparable to other studies. There was no case of scar dehiscence or rupture. 50% of caesarean section in the study group was for non-progress of labour. The number of vaginal delivery was lower in study group as compared to control, this can be explained on the basis that women in control group had higher number of previous vaginal deliveries.

Though the number of patients studied is small, it appears that preinduction cervical ripening is safe and effective in women with previous one LSCS. These patients require careful monitoring in labour to detect scar or uterine rupture if it occurs. Facilities for emergency LSCS should be available.

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