

Role of Intramuscular Injection of Prostodin in Cervical Priming in Cases of 1st Trimester Abortions

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Summary

A total of 200 patients coming for MTP in the first trimester to K.R. Hospital, Gwalior from June '95 to June '96 were studied. The purpose of the study was to study the efficacy of Prostodin as an adjuvant for first trimester MTP. The study group and the control group both comprised of 100 patients each.

The cervical dilatation was easier in the study group because cervix offered less resistance and was already dilated upto 7-8 mm in 86% cases while in the control group the cervical dilatation was less than 1 mm in 92% cases. The blood loss was much less in the study group and the post-operative complications were also much less.

Introduction

With the liberalisation of government policies and the various laws concerning abortion the frequency of termination of pregnancy is increasing more and more. But as the frequency is increasing, the quest is on for a safe method which will make abortion easy and simple.

Prostaglandins may be helpful for cervical priming prior to mechanical dilatation of cervix in the first trimester abortion by initiating uterine contractions and dilating the cervix. The purpose of the present study is to evaluate the efficacy of deep intramuscular injection of prostodin (15 (S) - 15 methyl PGF₂) on cervical priming prior to mechanical dilatation in 1st trimester abortion.

Material & Methods

The study was carried out on 200 first trimester pregnant patients (100 study group & 100 control group) in K.R. Hospital, Gwalior from June 1995 to June 1996. Patients having malignancy, acute PID, epilepsy, cardiac,

renal pulmonary and hepatic diseases, and hypersensitivity to prostodin were excluded from the study.

After testing sensitivity of drug by 0.4 ml, remaining dose of 0.6 ml of prostodin was given 15 minutes later. Inj. Metoclopramide hydrochloride 10mg was given 30 minutes prior, Tab. Lomotil was given whenever patient had diarrhoea.

After 3 hours, termination of pregnancy was done by suction and evacuation under IV sedation.

Results and discussion

Table I - In 28% cases side effects were present but required no specific treatment.

Table II - There is marked difference in both groups regarding cervical dilatation at the beginning of procedure. Mean cervical dilatation was significantly more in the study group (7.9mm) as compared to control group (2.3mm).

Table I
Distribution of cases according to preoperative side effects

Preoperative Side effects	Study group		Control group	
	No.	%	No.	%
Nausea	8	8	-	-
Nausea and Vomiting	12	12	-	-
Diarrhoea	2	2	-	-
Pain in abdomen	6	6	-	-

Table II
Distribution of cases according to cervical dilatation

Cervical Dilatation (mm)	Study group		Control group	
	No.	%	No.	%
4	4	4	92	92
4-6	10	10	8	8
7-8	56	56	-	-
9-10	18	18	-	-
Total	100	100	100	100

Table III - It is evident from this table that Prostodin reduces the resistance remarkably.

Table III
Distribution of cases according to resistance noticed during operation.

Resistance Noticed	Study group		Control group	
	No.	%	No.	%
Mild	84	84	2	2
Moderate	16	16	34	34
Severe	-	-	64	64
Total	100	100	100	100

Table IV - Mean blood loss was 52.8 ml in study group, significantly less than that in control group viz 84.8 ml.

Table IV
Distribution of cases according to amount of blood loss noticed during operation.

Amount of blood Loss (in ml)	Study group		Control group	
	No.	%	No.	%
Upto 40	36	36	10	10
40-80	46	46	26	26
80-120	18	18	56	56
>120	-	-	8	8
Total	100	100	100	100

(Value of P is insignificant)

Table V - 94% cases in the study group had the procedure

completed within 10 min as against that 99% cases needed 11 to 15 min. in the control group.

Table V
Distribution of cases according to the time taken during operation.

Time taken (in min)	Study group		Control group	
	No.	%	No.	%
<5	20	20	1	1
5-10	74	74	10	10
11-15	6	6	79	79
>15	-	-	10	10
Total	100	100	100	100

Table VI - Incidence of post-operative complications was higher in control group compared to study group

Table VI
Distribution according to postoperative complications

Type of post operative Complication	Study group		Control group	
	No.	%	No.	%
Bleeding	1	1	5	5
Incomplete abortion	1	1	8	8
Fever	-	-	-	-
Discharge P/V	-	-	-	-
Pain in lower abd.	8	8	-	-
Perforation of ut.	-	-	-	-
Cervical tear	-	-	-	-

The incidence of gastrointestinal side effects reported by Mishra et al (1988) was 32%, Devi et al (1988) - 63.3% and Fusey and Sonone (1991) 33.4%. These familiar side effects were much less in our study i.e. 14% probably because side effects of prostodin are dose dependent.

Prostaglandin E₂ given prior to operation causes cervical dilatation to some extent which might be sufficient to perform the procedure or if not sufficient then much less resistance is faced in further dilatation, making procedure easier, complete and with reduced complications. At least 7-8 mm dilatation was found in 86% cases, as compared to 80.3% reported by Jain et al (1983) and 93.3% by Fusey and Sonone (1991). In those cases where the cervical dilatation was 4-6 mm the uterine size was also less than 6 weeks.

The amount of blood loss in the study group was much less (<80 ml in 82% cases) in comparison to control group (80-120 ml in 64% cases). The mean blood loss was 52.8 ml in our study, much less than that in control group (84.8ml). Similar results have been found in studies by Jain et al (1983) viz 55.6 ± 21.6 ml and Devi

et al (1988) viz 50.5 ± 5.1 ml.

The time required was also much less in the study group viz less than 10 minutes in 94% cases compared to the control group where it was more than 11 minutes in 89% cases.

Post operative complications in the control group were incomplete abortion in 8% cases, bleeding in 5%, pain in lower abdomen in 3% and perforation in 2%. Compared to this the incidence was much less in the study group viz bleeding in 1% and incomplete abortion in 1%. However, in the study group the incidence of lower abdominal pain postoperatively was 8%. The chances of perforation decrease because the cervix becomes softer and hence is easier to dilate, it is already partially dilated and the uterus becomes contracted. Also the chances of incomplete abortion reduce.

Conclusion

The cervical dilatation was easier with use of

injection Prostodin because the cervix was already dilated and softer. The uterus was contracted and hence the blood loss was less, the time required for completion of procedure was much less. Patient morbidity was lesser because of lesser postoperative complications and lesser incidence of incomplete abortions and perforation.

If the cost factor is overcome Prostodin should be regularly used in cases of MIP because of its obvious advantages.

References

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