

CERVICAL RIPENING IN FIRST TRIMESTER ABORTION

(Single I.M. Injection of Prostin 15 M)

S.S. FUSEY • D.B. SONONE

SUMMARY

The study of single I.M. Injection of Prostin 15 M in cervical ripening of late first trimester abortions was carried out at the Govt. Medical College and Hospital, Nagpur. 30 patients were studied with gestational period of 8-12 weeks. A single I.M. Injection of Prostin 15 M was given to the patients and evacuation was carried out after 3 hours. 33.33% cases were nulliparas and 66.66% cases were multipara. The cervical dilatation was more than 8 mm in 93.33% cases and 3-4 mm in 6.6% cases, but here the cervix was soft and further dilatation was easy. During evacuation uterus was found to be firm and blood loss was minimum. Evacuation was carried out without difficulty in all patients.

Gastrointestinal side effects noted were vomiting and diarrhoea which occurred in 20% and 13.33% respectively with a frequency of only twice which required no specific treatment. No cases had cervical injury or any other serious complication.

All patients were discharged after 6 hours.

INTRODUCTION:

For the termination of first trimester pregnancy from 8 to 12 weeks cervical dilatation is essential before evacuation of the uterus. There is now evidence to show that rapid mechanical dilatation is associated with both immediate and late complications including the outcome of the

Dept. of Obs. and Gyn. Govt. Medical College Nagpur.

Accepted for Publication on 3/11/90

subsequent pregnancy.

Prostaglandins offer an essential possibility of using as pharmacological agent to achieve adequate cervical dilatation prior to evacuation.

The present study is carried out to evaluate the clinical effectiveness and safety of single intramuscular injection of 15 (s) - 15 methyl PG F₂ (prostin 15 M) for cervical ripening of late first trimester abortion by vacuum aspiration.

MATERIAL AND METHODS:

This study was carried out at Govt. Medical College and Hospitals, Nagpur over a period of one year.

Patients willing to undergo medical termination of pregnancy having period of gestation from 8-12 weeks were admitted in the hospital.

1. Known medical disorders like cardiac, pulmonary renal or hepatic disease and bronchial asthma and epilepsy.
2. History of hypersensitive reactions to any drugs.
3. Patients with uterine anomalies.
4. History of cervical repair.

On hospitalisation investigations like haemoglobin percent, blood group and Rh typing, examination for presence of albumin and sugar were done. Next day morning one ml of injection Stemetil was given by intramuscular route and then 1 ml of Prostin 15 M was given deep intramuscular in the gluteal region.

After 3 hours evacuation was done under intravenous pentothal. The amount of cervical dilatation was measured by passing Hegar's dilator through the cervical canal starting from the largest dilator which could pass through the internal Os without resistance. The number of dilator was noted. Further dilatation of cervix was done if required with Hegar's dilators and evacuation was completed without difficulty. After completion of evacuation patients vital signs were monitored. Bleeding per vagina and side effects like nausea, vomiting, diarrhoea were noted. All the patients were discharged after 6 hours. The results were analysed according to age, duration of pregnancy, parity, and degree of dilatation and softening of the cervix.

OBSERVATIONS:**TABLE - I**

Distribution of cases according to age.

Age in Yrs.	No. of cases	Percentage
15 - 20	13	43.3
21-25	10	30.00
26-30	4	13.66
31-35	3	10.00
Total	30	100.00

TABLE NO. 2

Distribution of Cases according to parity.

Parity	No. of cases	Percentage
Nulliparas	10	33.33
Paras		
1. Para	7	23.66
2. Para	9	30.00
3. Para	3	10.00
4. Para	1	3.3

TABLE NO. 3

According to weeks of gestation

Period of gestation in Weeks	No. of Cases	Percentage
8 - 10 Weeks	15	50.00
10 - 12 Weeks	15	50.00

TABLE NO. 4
According to cervical dilatation

Dilatation of cervix	No. of Cases in mm	Percentage
8 - 12 mm	28	93.33
4 - 8 mm	-	-
3 - 4 mm	2	6.66

The results of prostin on cervical dilatation was classified as good when dilatation achieved was 8 mm or more, fair when it was 4-8 mm. and poor when it was 0-4 mm. (Table No. 3) In our study good dilatation was achieved in 93.33% whereas dilation was poor in 6.66% cases but here the cervix was very soft and further dilatation was very easy.

Another important observation was that during evacuation uterus was found to be firm in consistency and the blood loss was strikingly minimum. The complications associated with this procedure were very minimum. The commonest complication was vomiting and diarrhoea which occurred in 6 and 4 patients respectively with a frequency of only twice. Both these complications did not require any specific treatment.

DISCUSSION:

Vacuum aspiration and curettage are most commonly used methods for termination of first trimester pregnancy.

Prostaglandins offer an excellent possibility of using as a pharmacological agent, and noninvasive to achieve cervical dilatation prior to evacuation.

In a study by various authors good cervical

dilatation was achieved in 96.7%, 60.0% and 99.0% cases by Sharda Jain (1983), S. Mishra (1988), P.K. Devi 1988, respectively.

In our study good cervical dilatation was achieved in 93.33% cases.

The incidence of gastrointestinal side effects reported in the literature has varied between occasional and approximately 53%. The side effects are dose dependant. Since only 1 ml of the drug was given in our study, these effects were minimal. Sharda Jain (1983) reported a frequency of vomiting as 0.17% and frequency of diarrhoea as 0.11%. In our study it was found to be 20% and 13.33% Here the incidence is comparatively high but the frequency was only twice which required no specific treatment.

CONCLUSIONS

1. Single I.M. injection of 1 ml of Prostin 15 M brings about cervical ripening within 3 hours of injection and hence makes further dilatation of the cervix very easy, so that evacuation of the uterus is performed very easily and without any difficulty.
2. This method is very simple, safe and effective.
3. The possibility of occurrence of side effects is very minimal.
4. The hospital stay is reduced and there is no inconvenience to the patients.

REFERENCES

1. Devi P.K., Jain S., Kanthari, C.R. Raghavan K.S. *Acta Obstet. & Gynec. Scand. suppl.* 145, 55 (1988).
2. Jain S. Bharati P., Chauhan Vora S., *Ind. Med. Res* 77, 49 p73 (1983)
3. Jain S., Vora S, Bharati P, *of Obstet. & Gynec. India* 33, 450, 1983.
4. Mishra, Sharan, Renu Mishra, *of Obstet. & Gynec. India*, 38, 418 1988.