COMPARATIVE EVALUATION OF EXTRA AMNIOTIC POVIDONEIODINE NORMAL SALINE AND ETHACRIDINE LACTATE FOR MID TRIMESTER ABORTION

S. Tewari ● S. Sharma ● N. Gulati ● Gautam Mukherjee

ABSTRACT

Two methods were used to induce mid trimester abortion. Group I patients received extra amniotic 0.5% povidone iodine in normal saline with 0.5 mg PGE_2 gel and group II patients received extra amniotic 0.1% ethacridine lactate with 0.5 mg PGE_2 gel. If abortion did not occur in 24 hours serial I/m injections of 250 ug $PGF_2\alpha$ were used.

In group I, 43.3% and in group II 86.6% patients aborted in 24 hours. 100% abortion could be achieved in remaining patients of both groups with $PGF_2\alpha$ I/m injection. The dosage required for group I were 1 to 5 (mean 637.5 ug) and that for group II, 1 to 3 (mean 417.5 ug). The mean induction abortion interval in two groups was 42.0 ± 16.41 hours and 23.4 ± 13.64 hours respectively. The abortion was complete in 70% of group I and 80% of group II patients. No complications were observed in patients of either group.

INTRODUCTION

Though medical termination pregnancy in the first trimester is quite safe, easy and quick procedure, due to social, medical or personal reasons, women still continue to seek abortions with advanced pregnancies. A safe, sure, quick and cheap method for termination of pregnancy in second trimester is still not available, and in search of one, the attempts still continue by comparison of results and associated compli-

Dept. of Obs. & Gyn. Pt. B.D.S. Medical College & Hospital, Rohtak.

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cations with available methods.

The present study was planned to evaluate the effectiveness and safety of povidone iodine normal saline in comparison to ethacridine lactate for mid trimester abortion.

SUBJECT & METHOD

The study was carried out on 60 women admitted in labour ward of Pt. B.D.S. M.C.H. Rohtak for second trimester medical termination of pregnancy. The women were assigned to group I or group II consecutively.

After a written consent, complete physical examination, Hb, BT, CT, urinalysis, ABO Rh grouping and serological test for syphilis were carried out.

Group - I :

A Foley's catheter No. 16 Fr. G. was inserted in the cervical canal reaching 5 cm beyond int. cervical os extra amniotically, Bulb was inflated with 20 ml of Dist. water, and 0.5% Povidone iodine normal saline solution 10 ml/ week was instilled, catheter was removed after 6 hours and 0.5 mg prostaglandin E2gel (Cerviprime-Astra DL) was instilled extra-amniotically.

Group II:

Same procedure was done except in place of povidone iodine normal saline, 0.1% ethacridine lactate 10 ml/week gestation was used.

Patients of both groups were observed for the onset of process of abortion, once abortion occurred, conceptus was examined for its completeness. The induction abortion interval, total blood loss, need for surgical evacuation, and complications if any were noted.

If the process of abortion failed to start by 24 hours of instillation, the abortion was augmented by serial I/m injections of 250 ug of 15 - Methyl $PGF_2\alpha$ every 3 hourly. Total dosage of $PGF_2\alpha$, associated side effects, induction abortion interval and completeness of abortion was recorded. The data has been statistically analysed.

OBSERVATIONS

The women in two groups were matched for their age, pairty, gestation in weeks, Hb gm% and social back grounds as shown in table I. All women in the study were married and living with their spouses. The

Table I
Profile of patients in two groups

	Group I	Group II
Rural background	50%	55%
Mean Age in years.	26.95 + 3.73	27.65 + 4.68
Mean Parity.	2.30	1.85
No.of living children	1 to 4	1 to 4
Mean gestation in weeks.	17.00 + 1.78	17.15 + 1.60
Mean Hb gm%	9.35	9.70

main indication for MTP in both the groups was unplanned unwanted pregnancy. Five women in group I and eight in group II underwent concurrent sterilization.

Outcome of two methods used for inducing abortion :

The outcome was judged by success rate without supplementary $PGF_2\alpha$, completeness of abortion, induction abortion interval, required dosage of $PGF_2\alpha$ and mean hospital stay as shown in table II.

Success rate :

In group I only 43.3% women aborted in Ist 24 hours as compared to 86.6% in group II. The difference was statistically significant with p value of < 0.001.

Completeness of abortion :

In group I, 70% and in group II 80% women had complete abortion, the difference was not significant. In all cases of incomplete abortion surgical removal of placenta was done.

Table II
Outcome of two methods used for inducing abortion

	Group I	Group II
Success rate without Supplementary $PGF_2\alpha$	43.3% *	86.6% *
Success rate with $PGF_2\alpha$	100.0%	100.0%
Complete abortion	70.0%	80.0%
Dosage of $PGF_2\alpha$.		
Mean.	2.55 $\pm$ 2.76 *	1.67 $\pm$ 3.35 *
Range.	1 to 3	1 to 5
Amount.	637.5 ug.*	417.5 ug.*
Induction Abortion Interval		
Mean.	42.0 $\pm$ 16.41	23.4 $\pm$ 13.64 *
In hours		
Range.	10-70	10-30
Mean Hospital Stay.		
(days)	3.85 $\pm$ 1.35	2.75 $\pm$ 1.5

* differences significant statistically.

Need for Supplementary methods:

In group I, 17 (57.7%) out of 30 women required, 15 methyl $PGF_2\propto$ injection for augmentation in comparison to only (13.4%) in group II. The number of dosage and total amount of $PGF_2\propto$ required in group I was much more than in group II. The mean amount required for two groups was 637.5 ug and 417.5 ug respectively.

Induction abortion interval and mean hospital stay :

The mean induction abortion interval in two groups was 42.0+16.41 and 23.4+13.64 hours respectively. The range was 10 to 70 hours in group I and 10-30 hours in group II. The difference was statistically significant. The mean hospital stay in group I was 3.85+1.35 days and in group II, 2.75 + 1.5 days. 5 women in group I and 8 in group II underwent post abortal sterilization.

Blood loss and other complications :

None of the woman of either group had a blood loss of 500 ml or more. There was no case of cervical or uterine injury.

In group I, 5 women (16.6%) had mild diarhoea and vomiting, which was controlled by tab. Lomotil and tab Stemetil.

There was no case of sepsis in either group during subsequent two weeks follow up. Every patient was given tab. Septran 2 tabs. BD and Tab. Flagyl 200 mg. TDS for 5 days from the time of extra amniotic instillation.

DISCUSSION

Zauva et al (1989) and Allahabadia G.J. (1992) have reported a high success rate of 90% and 100% with extra amniotic normal saline, with mean induction abortion interval of 17.5 + 6.7 and 30 hours respectively. In both studies, the oxytocin infusion was used after 2 hours of instillation.

In our study, we observed that the success rate with povidone iodine normal saline was only 43.3% and that with ethaecridine lactate 86.6% further the mean induction abortion interval with two methods was 42.0 + 16.41 hours and 23.4 + 13.64 hours respectively, the difference was significant.

In previous studies, a high incidence of (60-70%) has been reported for incomplete abortion, where as in present series the abortion was incomplete only in 20-30% of cases.

In present series when $PGF_2\propto$ a serial I/m inj. were used for augmentation the number of dosage required were only 1-3 with mean amount of drug being 417.5 to 637.5 ug. and the success rate was 100%.

Herabutya et al (1990) used PGE_2 gel intra cervically and amount required was 3 to 9 mg. Singh et al (1985) and Goenka have reported use of I/m. $PGF_2\propto$ alone, the dosage required were 7 to 8 to 300 ug $PGF_2\propto$ with mean of 2100-2400 ug. and success rate was only 90%.

No complications were observed with either method.

To conclude the results of present study the extra amniotic ethacridine lactate with 0.5 mg. of PGE_2 gel is more efficacious and rapid method for induction of second trimester abortion, avoiding the need for I/v oxytocin infusion and side effects of I/m $PGF_2\propto$. We failed to substantiate the efficacy of

povidone iodine normal saline as reported earlier.

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