

**MID TRIMESTER TERMINATION OF PREGNANCY
IMPROVED OUTCOME WITH EXTRA-AMNIOTIC
INSTILLATION OF ETHACRIDINE LACTATE
COMBINED WITH SYNTOCINON**

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SUMMARY

The present study was done to find out the improved efficacy of extra-amniotic Ethacridine Lactate (Emcredil 0.1%) combined with 15 units of Syntocinon (Sandoz) in second trimester pregnancy terminations. In 50 cases, 150 ml of Emcredil combined with 15 units of syntocinon was instilled in the extra-amniotic space, in 25 cases pregnancy was terminated with 150 ml of Emcredil alone instilled extra-amniotically and in another 25 cases intramuscular injection of PGF₂α was used. In cases where Emcredil combined with syntocinon was used, it was observed that induction - abortion interval was markedly reduced. In 88% of the cases induction abortion interval was less than 48 hours and oxytocin augmentation was required only in 18%. No side effects were observed during the procedure or in the peri-abortal period.

INTRODUCTION

There has been a continuous attempt to find out an ideal method for second trimester abortions. Extensive trials have been carried out with various drugs either alone or in combination, by different routes of administration.

Extra-amniotic instillation of abortifacients came into prominence with the realisation

of dangers associated with their use by intra-amniotic route. The extra-amniotic route has the advantage of being effective in terminating pregnancy of 12 to 14 weeks gestation whereas intra-amniotic route can be used only where the gestation is 16 weeks or more. The extra-amniotic route for administration of various abortifacients, dates back to 1846, (Manabe Y. 1969) although it is being used more frequently since 1964. (Manabe Y. 1969)

Extra-amniotic administration of etha-

cridine lactate has been accepted as a time tested, cheap, safe and effective method for the termination of second trimester pregnancies. (Anjaneyanllu et al 1977, Rajan et al 1977, Rajan R. et al 1979) It's main drawback is it's prolonged induction abortion interval and the need for augmentation with oxytocin in majority of the cases. In attempt to improve the efficacy of the procedure, various other techniques were combined with ethacridine lactate extra-amniotic instillation. Nayak et al 1989, Nabriske et al 1971) In our study, we have made an attempt to improve the efficacy of the procedure by combining syntocinon with ethacridine lactate, used extra-amniotically.

MATERIALS AND METHODS

In this study, 100 cases of second trimester pregnancy terminations were performed by using three different procedures; over a period of 6 months from July '92 - Jan '93, in Safdarjang Hospital, New Delhi. The period of gestation ranged between 12 to 20 weeks. All the patients were clinically evaluated and laboratory tests such as Hb estimation and routine urine analysis were performed. These cases were randomly assigned into three groups A, B & C. These patients were comparable regarding their age, parity and other characteristics in all these three groups.

Group A consisted of 50 cases, where

Table I

Distribution of patients according to age, parity, and marital status

Patient Characteristics	Group			Total
	A No. of Cases (%)	B No. of Cases (%)	C No. of Cases (%)	
i) Age in years				
< 20	9 (18)	—	3 (12)	12 (12%)
20 - 30	28 (56)	15 (60)	15 (60)	58 (58%)
31 - 40	12 (24)	7 (28)	7 (28)	26 (26%)
> 40	1 (2)	3 (12)	—	4 (4%)
ii) Parity				
0	5 (10)	—	6 (24)	14 (14%)
I	6 (12)	7 (28)	4 (16)	17 (17%)
II	14 (28)	4 (16)	5 (20)	23 (23%)
III	25 (50)	14 (56)	10 (40)	49 (49%)
iii) Marital Status				
Married	35 (70)	21 (84)	20 (80)	76 (76%)
Unmarried	10 (20)	4 (16)	5 (20)	19 (19%)
Widow	2 (4)	—	—	2 (2%)
Divorcee	3 (6)	—	—	3 (3%)

150 ml of Ethacridine lactate (Emcredil 0.1%) with 15 units of syntocinon (Sandoz) was instilled in the extra-amniotic space transcervically through Foley's catheter no. 14. The catheter was left in-situ for 6 hours. Group B consisted of 25 cases, where 150 ml of emcredil (EI) alone was instilled. Group C, comprised of 25 cases, where injection of $\text{PGF}_2\alpha$ were given, 250 μg intramuscularly every 3 hours till the patients aborted or to a maximum of 10 doses. All these patients were given tablet lomotil and tablet stemetil half an hour before giving injection. These patients were monitored for vital signs till the abortion was complete.

done in cases, where the abortion did not take place within 48 hours. Uterine cavity was evacuated in cases with incomplete abortions. In group A & B, prophylactic antibiotics, cap Ampicillin, 500 mg, six hourly was started at the time of induction. The method was considered as a failure when the patient did not abort within 72 hours and these patients were changed over to other method of termination of pregnancy.

Comparisons of these procedures were made regarding the total time involved in the procedure, induction abortion interval, need for oxytocin augmentation, incidence of incomplete abortions and their complications.

Oxytocin augmentation by I. V. drip was

Table II

Showing the indications of MTP in 2nd Trimester abortions and the period of gestation in weeks

	Group			Total
	A No. of Cases (%)	B No. of Cases (%)	C No. of Cases (%)	
i) Indications				
Failure of Family Planning method	31 (62)	18 (72)	14 (56)	63 (63%)
Social grounds	14 (28)	3 (12)	4 (16)	21 (21%)
Medical grounds	5 (10)	4 (16)	7 (28)	16 (16%)
ii) Gestational age (weeks)				
12 - 14	16 (32)	8 (32)	8 (32)	32 (32%)
14 - 16	20 (40)	7 (28)	8 (32)	35 (35%)
18 - 20	14 (28)	10 (40)	9 (36)	33 (33%)

In 63% cases, the MTP was performed for failure of contraception, in 21% social reasons were responsible for M.T.P. and only in 16%, the reasons for terminating pregnancy were on medical grounds, (Table - II). In 67% of the cases, gestational age was 16 weeks or less and in 33%, the uterine size was between 18-20 weeks of gestation (Table - II).

OBSERVATIONS

Majority of the patients belonged to low socioeconomic status and were illiterate. The youngest patient was 16 years old and the eldest was 41 years of age. Fifty-eight percent of these cases were between the

ages of 20 to 30 years and 26% in 31 to 40 years (Table I). Majority of these cases (49%) were either para III or more (Table I). In 76%, the females were married, 19% unmarried and in another 5% they were either widowed or divorced (Table I).

Table III

Showing the distribution of the patients according to instillation - Abortion - Interval (IAI)

IAI (Hours)	A	B	C
	No. of cases (%)	No. of cases (%)	No. of cases (%)
< 24	24 (48)	3 (12)	18 (72)
24 - 48	20 (40)	5 (20)	6 (24)
49 - 12	5 (10)	17 (68)	1 (4)
Failed	1 (2)	0	0

In Group A 88% of the patients aborted in 48 hours, whereas in Group B only 32% of the cases aborted in 48% hours. In Postaglandin group (C) 98% of the patients, aborted within 48 hours.

Table IV

Showing distribution of cases requiring Oxytocin augmentation, and complications

	A	B	C
	No. of cases (%)	No. of cases (%)	No. of cases (%)
Oxytocin augmentation	9 (18)	10 (40)	1 (4)
Incomplete abortion	15 (30)	6 (24)	7 (28)
Excessive bleeding	1 (2)	0	0
Rupture uterus	0	0	1 (4)
Cervical tear	0	0	1 (4)
Nausea, vomiting & diarrhoea	0	0	20 (80)

In 18% of the patients syntocinon I.V. drip had to be used mainly for retained placenta in Group A, whereas in Group B, where Emcredil was used alone, 40% required syntocinon augmentation for abortion (Table - IV).

DISCUSSION

To improve the clinical efficacy of extra-amniotic abortifacients, various combined techniques have been used in earlier studies. (Anjaneyanllu et al 1977, Rajan R et al 1979, Gupta R et al 1989, Nayak and Dalal 1989) have reported that 96% of their patients aborted in 48 hours and 100% in 72 hours when they instilled extraamniotic emcredil 150 ml combined with 20 units of Pitocin. In majority of the cases, the abortion was complete, in 2% of the patients. There was excessive bleeding and no other side effects were encountered during the procedure and in the peri-abortion period. Our results of Emcredil with syntocinon group are comparable with the results seen in the above study. In the present study, 88% of cases in group A, aborted in 48 hours, against 32% in group B, where emcredil only was used. The success rate was 98% in 72 hours and the failure rate was only 2%. Oxytocin augmentation was required in 18% and uterine curettage was performed for incomplete abortion in 30% of these cases. One patient had excessive bleeding and two units of blood were transfused in her. No other side effects were observed during the procedure and in the peri-abortion period in this group.

Rastogi et al, (1981) and Gupta (1989) have reported a success rate of 80% and 98% respectively with extra-amniotic Ethacridine lactate. In our study only 32% of the patients aborted in 48 hours in Group B, where only Ethacridine lactate was used. Syntocinon augmentation was required in 40% of the cases. No other side effects were observed in this group.

Group C cases, 72% patients aborted in 24 hours, 96% in 36 hours and no failure were seen in this group. One patients and annular detachment of the cervix along with rupture of the lower uterine segment, for

which total abdominal hysterectomy was performed. Another case had lateral cervical tears which required repair. In 72% of the cases, abortion was complete and 28% cases required uterine curettage for incomplete abortions. Gastro-intestinal side effects like nausea, vomiting and diarrhoea were observed in 80% of these cases, but none of these patients required parenteral fluid therapy for dehydration. Prostaglandins given by various routes, have proved to be excellent abortifacients, ensuring shorter induction-abortion interval (Brenner-1976) but their prohibitive cost and untoward side effects are their main disadvantages. Besides, with intramuscular route, serial injections have to be given to the patient.

CONCLUSIONS

Although the present study consists of small number of cases, from the above comparisons it has been seen that extra-amniotic ethacridine lactate when combined with syntocinon is more effective than using it alone, without compromising the safety of the procedure. Thus, it can be concluded that, it is a very cheap, easy to administer, quick and safe method of mid trimester, abortions. This study is being continued for further evaluation.

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