# EXTRA - AMNIOTIC INSTILLATION OF TABLET PRIMIPROST WITH ETHACRIDINE LACTATE FOR TERMINATION OF SECOND TRIMESTER PREGNANCY

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## SUMMARY

**One hundred and fifty cases of second trimester pregnancy termination were studied. Out of these in 75 cases tablet primiprost was instilled along with ethacridine lactate in the extra amniotic space. In the remaining 75 cases, only ethacridine lactate was instilled.**

**It was observed that by addition of tablet primiprost for termination of pregnancy, the instillation - abortion inverval and the need for osytocin drip was reduced. Abortion was complete in all these cases.**


## *INTRODUCTION*

Medical termination of pregnancy has become very common in last few years because of its impact on population control. There are various methods for termination of pregnancy in second trimester, but none of them could be labeled as an ideal method for the same. Still a search is going on for a method in which the complications like hemorrhage, infection, perforation can be avoided and the hospital stay is reduced.

Extra amniotic instillation of various substances has been carried out for termination for pregnancy for more than a century. It was first described by COHEN, as early as, in 1846. Now extra amniotic instillation of ethacridine lactate has been accepted as safe and effective method for second trimester termination of pregnancy.

To reduce instillation - abortion interval, various methods have been carried

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*Accepted for Publication on Oct' 96*

out. Instillation - abortion interval with hypertonic saline is mostly between 22 - 39 Hrs. Whereas when pitocin was added to ethacridine lactate, the instillation - abortion interval was 27 Hrs. (Nayak et al 1989).

The aim of our study was to evaluate the efficacy & safety following termination of a second trimester pregnancy by tablet primiprost with ethacridine lactate & its effect on instillation - abortion interval, need for oxytocin drip & completeness of abortion.

## *MATERIAL & METHODS*

This study was carried out in B.Y.L. Nair Hospital, Mumbai, in which 150 cases were studied. All these patients were undergoing second trimester termination of pregnancy & had uterine size ranging from 14 - 20 weeks. None of the patients had contra-indication of prostaglandin administration and no patient in our study had previous caesarean section.

These 150 cases were divided into 2 groups :-

Group A - Control group - 75 pts.

Group B - Study group - 75 pts.

In group A (Control Group) only ethacridine lactate was instilled in the extra amniotic cavity for termination of pregnancy, 150 cc of ethacridine lactate was instilled in the cavity.

In group B (Study Group) prostaglandin along with ethacridine was instilled in the extra amniotic cavity.

One tablet of primiprost was crushed and added to ethacridine lactate and this was instilled in the extra amniotic cavity for termination of pregnancy.

In all these patients, the catheter was left in situ. If the patient did not expel the catheter spontaneously or did not abort in 24 Hrs., oxytocin drip was started after removing the catheter. When placenta was expelled spontaneously or with oxytocin drip within 2 Hrs. of expulsion of fetus, the abortion was considered as complete. If the patient did not abort in 72 hrs, it was considered as failed and the procedure was repeated.

Results obtained in both the groups were compared with respect to instillation - abortion interval, need for oxytocin drip, type of abortion, failure and complication, if any.

## *RESULTS AND ANALYSIS*

### 1) AGE DISTRIBUTION

In our study the youngest patient was 20 years old, while the oldest was 38 yrs. old. Of this around 48% patients belonged to age group of 26 - 30 yrs. (Table I).

### 2) GRAVIDITY DISTRIBUTION

Most of the patients in our study were multi-gravida. Out of 150 patients, 89 patients (i.e., 58.3%) had 3 or more children (Table II).

### 3) MARITAL STATUS

Most of the patients were married and termination of pregnancy was done as a birth spacing measure. A small number of patients were unmarried (4%) and a few patients were divorced (7%) (Table III).

### 4) INSTILLATION - ABORTION INTERVAL

The average instillation - abortion interval in study group was 12 hrs., whereas in control group, it was as high as 51 hrs.

**Table I**
**AGE DISTRIBUTION**

| | Control Group | | Study Group | |
|---|---|---|---|---|
| | No. | % | No. | % |
| < 20 yrs. | 3 | 4.00 | 2 | 2.67 |
| 21 - 25 yrs. | 17 | 22.67 | 19 | 25.33 |
| 26 - 30 yrs. | 37 | 49.33 | 36 | 48.00 |
| 31 - 35 yrs. | 11 | 14.67 | 12 | 16.00 |
| 36 - 40 yrs. | 7 | 9.33 | 6 | 8.00 |
| Total | 75 | | 75 | |

**Table II**
**GRAVIDITY DISTRIBUTION**

| | Control Group | | Study Group | |
|---|---|---|---|---|
| | No. | % | No. | % |
| Primigravida | 14 | 18.67 | 12 | 16.00 |
| Gravida 2 | 18 | 24.00 | 17 | 22.67 |
| Gravida 3 or more | 43 | 57.33 | 46 | 61.33 |
| Total | 75 | | 75 | |

**Table III**
**MARITAL STATUS**

| | Control Group | | Study Group | |
|---|---|---|---|---|
| | No. | % | No. | % |
| Married | 60 | 80.00 | 54 | 72.00 |
| Unmarried | 3 | 4.00 | 8 | 10.67 |
| Divorcee/Widow | 12 | 16.00 | 13 | 17.33 |
| Total | 75 | | 75 | |

The instillation - abortion interval was less than 24 hrs. in 90% of cases and about 98% of the patients aborted within 48 hrs., when tablet primiprost was added to ethacridine lactate for termination of pregnancy. (Table IV).

**5) COMPLETENESS OF ABORTION**

In our study, all the patients aborted completely, when primiprost was added to ethacridine lactate; whereas only 32% patients were aborted completely, when only ethacridine lactate was used. (Table V).

**6) NEED FOR OXYTOCIN DRIP**

In our study, very few patients required oxytocin drip. Oxytocin drip was started either for initiation of uterine activity or for expulsion of placenta. In patients, in whom tablet primiprost was used, only 9 patients, i.e. 12% required oxytocin drip and it was mainly for initiation for uterine activity. Whereas in control group, where only ethacridine lactate was used as many as

**Table IV**
**INSTILLATION - ABORTION INTERVAL**

| | Control Group | | Study Group | |
|---|---|---|---|---|
| | No. | % | No. | % |
| < 24 hrs. | 9 | 12.00 | 64 | 85.33 |
| 24 - 48 hrs. | 28 | 37.33 | 8 | 10.67 |
| > 48 hrs. | 38 | 50.67 | 3 | 4.00 |
| Total | 75 | | 75 | |

**Table V**
**COMPLETENESS OF ABORTION**

| | Control Group | | Study Group | |
|---|---|---|---|---|
| | No. | % | No. | % |
| Complete | 27 | 32.00 | 75 | 100.00 |
| Incomplete | 48 | 68.00 | 0 | 0.00 |
| Total | 75 | | 75 | |

**Table VI**
**NEED FOR OXYTOCIN DRIP**

| | Control Group | | Study Group | |
|---|---|---|---|---|
| | No. | % | No. | % |
| Required | 57 | 76.00 | 9 | 12.00 |
| Not Required | 18 | 24.00 | 66 | 88.00 |
| Total | 75 | | 75 | |

57 patients (76%), required oxytocin drip for initiation of uterine activity and expulsion of placenta. (Table VI).

**7) FAILURE OF PROCEDURE**

There was not a single case of failure when tablet primiprost was added to ethacridine lactate. While in control group, in 10 patients (7.5%), the procedure had to be repeated as they did not abort in 72 hrs.

**8) COMPLICATIONS**

None of the patients in study group had any complications. Only 3 patients (4%), in control group, had excessive bleeding, but they did not require any blood transfusion for the same.

## *DISCUSSION*

The abortificient properties of prostaglandin $E_2$ and prostaglandin $F_2$alpha are now well established. The addition of prostaglandin in extra amniotic space has shown to be a valuable alternative to other methods of inducing midtrimester abortion (Bygdeman et al 1980).

Prostaglandin can be used either orally or parenterally (IM,IV or local) for termination of pregnancy. In a study conducted by Bailey C.D.H. et al 1975 prostaglandin E2 vag. suppositories were used. Ideally, tablet primiprost is used orally for induction. But we have tried by different route. One tablet of primiprost was crushed and mixed with ehtacridine lactate and instilled extra amniotically. To our surprise, we found that the instillation - abortion interval was drastically reduced and average instillation - abortion interval was 12 hrs.

In our study, it was found that the abortion was complete and the need for oxytocin drip was also reduced. Only a few patients had minor side effects like nausea & vomiting, which were well controlled with anti-emetics. The observed difference in instillation - abortion interval was statistically significant ($P.< 0.05$).

Laucrson et al (1975) used I.M. injection of prostagladin $F_2$alpha for termination of pregnancy and the instillation - abortion interval was 15.30 hrs. But then patients had to be given repeated intra muscular injections and the patients had marked gastrointestinal side effects. In our study,

the need for repeated IM injections was eliminated and side effects were less.

Similarly, Suriago et al (1982) have reported the instillation - abortion interval of 13 hrs. by using intra vaginal prostagladin $E_2$. This instillation - abortion interval is almost the same as ours, but cost of cerviprime gel is much higher than primiprost tablet, making our method more economical.

Hence, in conclusion we found that this new technique is safe, reliable and economic method for second trimester termination of pregnancy and in addition to all this, it also reduces hospital stay for patient.

*ACKNOWLEDGEMENT*

We thank Prof. & Head of Obst. & Gynac Department, Dr. M.Y. Rawal and Dean of T.N. Medical College & B.Y.L. Nair Charitable Hospital, Dr. K.D. Nahalani for allowing us to use hospital data.

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