DISCUSSION


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Medical termination of pregnancy has been the topic of discussion since long time, but recently it has gained much attention because of population explosion. Thus there should be a safe, cheap, easy and effective method to control this explosion problem to some extent. Thus it is the duty of medical personnel to sort out such a method of termination of pregnancy.

In 1971 Stallworthy mentioned ‘no operation is so simple that it is entirely free from risks’. Thus it is the duty of every medical man to judge which method is safe for termination and to avoid the procedure all together, if it is hazardous to the life of patients.

Thus, a clinical evaluation of various methods of termination of pregnancy in second trimester has been attempted to judge their safety and reliability. A meticulous study in search of a safe alternative for mid trimester abortion has been carried out in Maharani Laxmi Bai Medical College, Jhansi in department of Obstetric and Gynaecology. This study was conducted on 240 patients who came for termination between 12-20 wks of gestation. Patients were divided randomly into 2 groups of 120 each and named as group A and group B. The study includes termination by serial use of 400 μg 4 hourly misoprostol vaginally in group A patients and comparing the results with serial use of dinoprostone 0.5mg 12 hourly intra-cervically in group B patients.

The efficacy of methods was observed. The observations were noted in terms of age, parity, and period of gestation, marital status,
socio-economic status, induction-abortion interval, doses of prostaglandin required, their success rates and appearance of side effects if any.

Relation to age

In study group the age group ranged from 18-45 yrs in misoprostol group. The majority of patients were in age group 25-30 yrs (40%) only 10% were in age groups above 35 yrs, with 40-45 yrs age group being least common and only 2% were in this age group. 18-25 yrs age group constituted 25% of group A.

In dinoprostone group also majority of patients were in age group 25-30 yrs (43.33%) and only 8.33% were in age groups above 35 yrs. 18-25 yrs age group constituted 23.33% of group B.

Relation to parity

In our study of mid-trimester abortion maximum patients were multipara. As shown in table III in misoprostol group, maximum patients were of parity-3 (32.5%) closely followed by parity-2 (28.33%) and parity-4 (25%). Least common was parity-1 (2.5%) parity-5 was (5%) and nulliparae were (6.66%).

In dinoprostone group again parity-3 was most common (33.33%) followed by parity-2 (25%) and parity-4 (23.33%) Parity-1 was least common (3.33%) and nulliparae were 8.33%.

Relation with marital status

In present study maximum patients were married 68.33% and 72.66% in misoprostol and dinoprostone group respectively. Unmarried patients in group A and group B were 18.03% and 15.83% respectively. Widows and divorcee were 13% and 12.5% respectively.
Relation to rural and urban population

68.33% of our patients were from rural areas, and 31.66% were from urban areas in group A and for group B the percentages were 66.66% and 33.33% respectively. Above data shows that the rural population came late for abortion because of hesitation and lack of education while urban population undergoes first trimester abortion if needed and only a few number of cases came in second trimester for abortion.

Relation to socio-economic status

In our study 56.66% patients belonged to low socio-economic status and 25% to middle class and 18.33% to high class in misoprostol group compared to 60%, 23.33% and 16.66% of low, middle and high class in dinoprostone group.

Relation of period of gestation

In present study in 12-14 weeks, 14-16, weeks, 16-18 weeks and 18-20 weeks gestational age group in group A and B following percentages of patients were seen 18.33%, 17.50%; 24.16; 22.50; 32.50, 33.33; 25, 26.66 respectively.

Thus the data shows that maximum number of patients came later weeks of pregnancy because of lack of education in rural areas.

Relation of induction-abortion interval

Induction-abortion interval is the time from application of first dose of misoprostol or dinoprostone to abortion.

In our study the mean induction abortion interval was 11.2 hours for misoprostol group and 18.1 hours for dinoprostone group.
The mean induction-abortion interval by misoprostol administered vaginally as reported by different authors in different studies is -

**Bugalho et al** in 1993 reported mean induction-abortion interval of 14.3 hours while using misoprostol vaginally every 24 hourly (dose 200-800μg).

**Jain and Mishell**, in 1994 reported mean induction-abortion interval of 12 hours while using misoprostol 200 μg 12 hourly.

**Srisomboon et al** in 1997 reported mean induction-abortion interval of 27.5 hrs while using 200 μg cervico vaginal misoprostol 12 hourly.

**N.R. Agarwal et al (1996)** reported mean induction-abortion interval of 14.4 hours using misoprostol 100μg 3 hourly and 25.6 hours using dinoprostone 0.5mg 12 hourly.

**Carbonell et al** in 1998 reported mean induction-abortion interval of 9.1 hours while using 800 μg vaginal misoprostol 24 hourly for 3 doses.

**Dickinson et al** in 1998 reported mean induction-abortion interval of 16.9 hours while using 200 μg vaginal misoprostol 6 hourly for 4 doses.

**Herabutya et al** in 1998 reported mean induction abortion interval of 33.4 and 22.3 hours while using 400μg and 600μg vaginal misoprostol 12 hourly for 48 hours.

**Wong et al** in 1998 reported mean induction abortion interval of 14.1 hours using 400μg vaginal misoprostol 3 hourly for 5 doses.

**Dickinson et al** in 2002 reported mean induction abortion interval of 18.2, 15.1 and 13.2 hours while using 200μg vaginal misoprostol 6 hourly, 400μg vaginal misoprostol 6 hourly and 200μg
vaginal misoprostol 6 hourly (following a loading dose of 600μg) respectively.

**Success rate**

The success rate in present study was 97.5% for misoprostol and 83.33% for dinoprostone group.

Jain and Mishell in 1994 had a success rate of 89% within 24 hours using 200μg vaginal misoprostol 12 hourly.

N.R. Agarwal et al (1996) had a success rate of 90% in 24 hours using 100μg misoprostol 3 hourly and success rate was 80% using dinoprostone 0.5mg 12 hourly.

Batioglu et al in 1997 reported success rate of 92.9% within 48 hours 200μg oral misoprostol 1 hourly for maximum of 6 doses.

Carbonell et al reported success rate of 80% with 800μg vaginal misoprostol 24 hourly for 3 doses.

Dickinson et al in 1998 reported 74.9% success rate within 24 hours using 200μg vaginal misoprostol 6 hourly for 4 doses.

Herabutyra et al in 1998 reported 82% success rate within 48 hours using 400μg vaginal misoprostol 12 hourly.

Wong et al in 1998 reported 80% success rate within 24 hours using 400μg vaginal misoprostol 3 hourly for 5 doses.

Dickinson et al in 2002 reported 76% success rate within 24 hours using 400 μg vaginal misoprostol 6 hourly.

**Side effects**

The incidence of side effects with both the groups was not very significant and in majority the side effects were of minor variety.
Nausea, vomiting and diarrhoea were more commonly seen in dinoprostone group.

Fever was more common in misoprostol group (7.5%) compared dinoprostone group (1.66%).

Severe uterine pain was more common in dinoprostone group (12.5%) compared to misoprostol group (7.5%).

Bleeding per vaginium during pre-abortion process was more commonly seen in misoprostol group (12.5%) compared to dinoprostone group (2.5%).

None of the patient required blood transfusion or resuscitation because of the bleeding.

**Total dose requirement**

The total dose requirement for abortion was in majority (55.66%) 800µg, i.e. 2 times application of 2 tablets of 200 µg each, for misoprostol group.

For dinoprostone group the most common dose requirement was 1 mg (66%), i.e. 2-time application of 0.5 mg each.

**Mode of management of failed cases**

In 2 of the misoprostol group and 13 of the dinoprostone group of the failed cases high doses of oxytocin resulted in abortion in both cases.

In 1 case in misoprostol group and 5 cases in dinoprostone group surgical evacuation under high doses of oxytocin was employed.

In 2 cases of the dinoprostone group hysterotomy with ligation was employed for abortion.