Safety and efficacy of Mifepristone plus Misoprostol in Second Trimester Termination of Pregnancy in Previous CS

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ABSTRACT
AIM- The present study was undertaken to evaluate the safety and efficacy of mifepristone and misoprostol for pregnancy termination in mid trimester in women with prior scar of Caesarean section in MGM Medical College and LSK Hospital Kishanganj Bihar.

METHODS: 30 women with previous one cesarean and 13-20 weeks gestation were included. This study was done in women coming for induced abortion in MGM Medical College and LSK Hospital Kishanganj.

RESULTS: There was no case of rupture uterus. All patients aborted within 24 hrs. Most of them needed surgical evacuation for removing placental bits.

CONCLUSION: Use of misoprostol in combination with mifepristone is safe and effective for second trimester abortion in women with previous cesarean.

KEYWORDS- Misoprostol, Mifepristone, cesarean, rupture uterus.

INTRODUCTION
As cesarean delivery is becoming very common we are day to day facing the women coming for second trimester abortion with previous cesarean. The past decade has seen India cross the WHO threshold for caesarean deliveries (15%). And still contraceptive methods are not widely practiced. In many cases women conceive during lactational amenorrhea with previous child being less than one year old. As per guidelines of MTP act we can perform abortions up to 20 weeks of gestation. Therefore number of women seeking for second trimester abortion post caesarean is also increasing.

Mifepristone the antiprogestin along with synthetic prostaglandin E1 analogue Misoprostol is being used in medicinal abortion. The aim of this study was to analyze the safety and efficacy of these drugs in second trimester abortion in women with previous cesarean.

METHODS
The present study was in gynecological OPD of MGM Medical College and LSK Hospital, Kishanganj Bihar in women coming for second trimester abortion with previous one cesarean. 30 women after proper counselling and taking...
informed consent were enrolled. Duration of study was from 01.02.15 to 01.10.15. All the women included in the study were healthy with no significant medical problems. The age group was from 25-35 yrs. The indication for termination were in consonance with the MTP act. Ethical clearance was obtained from the hospital ethical committee.

**Exclusion criteria**
1. Women with baseline hemoglobin<8gm/dl
2. Bleeding PV at the time of examination
3. Women with any type of medical problem and PID
4. Multiple pregnancy and missed abortion

**METHOD**
Women who fulfilled the above criteria and gave the consent in written were included in the trial and were given mifepristone 200mg stat dose and then after 24 hrs. admitted and started on misoprostol 600 mcg per vaginally high in posterior fornix followed by 200 mcg sublingually every four hourly till abortion. Before every next dose, the patient was examined and if the patient was having adequate contractions (3 in 10 minutes) or cervix was dilated (4cm) or complaining of unbearable pain next dose was deferred. Side effects were recorded. Induction abortion recorded. All patient was supervised thoroughly with timely recording of vital signs(B.P. Pulse Temperature) Complication of Misoprostol (fever, chills, diarrhea, nausea, vomiting) and signs of uterine rupture (persistent abdominal pain, maternal tachycardia, hypotension, vaginal bleeding). Following expulsion of fetus Oxytocin infusion was given for 1 hour. Many had incomplete evacuation which was completed surgically under anesthesia.

**RESULTS**
Table 1 shows complication and side effects among our study group

| Side effects       | Number of cases | Percentage |
|--------------------|-----------------|------------|
| Excessive blood loss | 15              | 5%         |
| Need analgesia     | 27              | 90%        |
| fever              | 6               | 20%        |
| nausea             | 12              | 40%        |
| Diarrhea           | 6               | 20%        |
| Uterine rupture    | 0               | 0%         |

27 patient needed analgesia and surgical evacuation. None had rupture uterus 15 cases had excessive blood loss which was managed by packing and caboprost injection no one needed blood transfusion.

**Table 2: Induction abortion interval**

| Weeks | 4-6hrs | 6-8hrs | 8-10hrs | 10-12hrs | 12-16hrs | 16-20hrs | >20hr | Total |
|-------|--------|--------|---------|----------|----------|----------|-------|-------|
| 12-16 | 1      | 11     | 3       | -        | 2        | -        | -     | 17    |
| 16-20 | -      | 3      | 2       | 2        | 4        | 1        | 1     | 13    |

Induction abortion interval was calculated from first dose of misoprostol till expulsion of fetus partially or completely. Only three cases had complete expulsion rest needed surgical exploration. Higher gestation needed higher doses of misoprostol so they suffered more side effects.

**DISSCUSSION**
The aim of our study was to evaluate the safety of combining mifepristone with misoprostol for second trimester abortion in women with previous cesarean. Several studies have shown misoprostol to be a safe agent [1,2,3,4]. Our study clearly shows the above combination is safe and effective in women with previous cesarean. Our study showed no case of rupture uterus similar to many studies [1,2,3,4]. Mean induction abortion interval in our study was 10.32 +/- 2.05 hrs. which is comparable to 12-16 hours in other studies [5,6,7,8]. In our study 96.6% women aborted within 20hrs which is comparable to about 90% reported in other studies [5,6,7].

Misoprostol can be given orally, sublingually, vaginally or rectally. The tablet is coated with cellulose to make stable at room temperature [9] and this may result in delayed or varying
absorption or cumulative effect when applied vaginally\textsuperscript{[9,10]}
Nausea was commonest side effect of misoprostol (40%) fever and diarrhea was seen in 20%. As women with previous cesarean are less pain tolerant so they required analgesia more often.

**CONCLUSION**
Mifepristone and misoprostol when used for second trimester termination in previous cesarean appeared safe and applicable. However larger study would be needed to provide accurate assessment of risk of uterine rupture.

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