



## A Comparative Study of Sublingual Versus Vaginal Misoprostol in first Trimester Abortion

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**ABSTRACT**

The main aim of the study is to compare the effect of Sublingual Misoprostol with Vaginal Misoprostol before vacuum aspiration in first trimester abortion. This was a Prospective Randomized Comparative study was done in Govt. RSRM Lying in Hospital between 2015-2016. This study was conducted in 100 selected patients willing for MTP and 100 patients diagnosed with missed abortion. Patients were selected irrespective of age, parity and marital status. Inclusion criteria for the study was 1.Women with normal general as well as gynecological examination and 2.Gestational age less than 12 weeks. Exclusive criteria are 1.Patient on long term medication, 2.Patient with IUCD insitu, 3.History of uterine anomalies, 4. History of previous uterine surgery and cervical surgery, 5.Patients allergic to Misoprostol, 6.Gestational age more than 12 weeks. Both study groups were comparable with regard to age, gravid, gestational age, cervical dilatation, duration of procedure and side-effects. The study showed that Sublingual route gave the desired cervical dilatation compared to Vaginal route.

**KEYWORDS**

**INTRODUCTION:**

Abortion, either spontaneous or induced, will occur as long as mankind exists. It is resorted to terminate unwanted pregnancies or to save the mother from complications and also in the control of population. Many methods of abortion in first trimester available. Cervical injury is the most common complications that occur during cervical dilatation while doing vacuum aspiration in first trimester abortion, so it is preferable to ripen the cervix with mechanical and pharmacological agents. This study compares the efficacy of the drug Misoprostol as cervical priming agent by Sublingual and Vaginal in first trimester abortion.

**MATERIALS & METHOD:**

Prospective Randomized Comparative study was done in Govt. RSRM Lying in Hospital between 2015-2016. This study was conducted in 100 selected patients willing for MTP and 100 patients diagnosed with missed abortion. Patients were selected irrespective of age, parity and marital status. Inclusion criteria for the study was 1.Women with normal general as well as gynecological examination and 2.Gestational age less than 12 weeks. Exclusive criteria are 1.Patient on long term medication, 2.Patient with IUCD insitu, 3.History of uterine anomalies, 4. History of previous uterine surgery and cervical surgery, 5.Patients allergic to Misoprostol, 6.Gestational age more than 12 weeks. Cervical dilatation was assessed before starting the procedure. 50 patients out of 100 willing for MTP and 50 out of 100 missed abortion were given Sublingual Misoprostol. Rest were given Vaginal Misoprostol. Both progress were monitored.

The time duration taken for the procedure was measured from the beginning of dilatation to the end of curettage. The amount of blood loss was also monitored. At the end of procedure 0.2mg Methergine was given intramuscular. All patients were given antibiotics following the procedure.

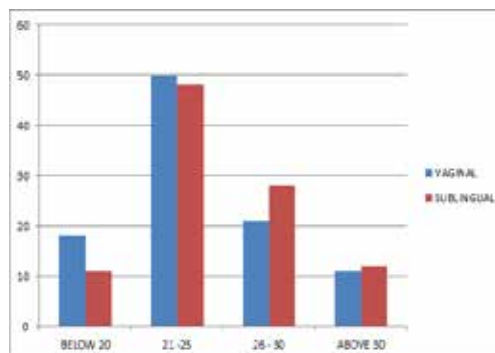
Statistical analysis was done using student ‘t’ test when continuous variable are analysed. When frequency variables are involved ‘chi square’ test done. Calculation of ‘p’ value is done and the results are analysed.

**RESULTS & ANALYSIS:**

The study was conducted in 100 selected patients willing for

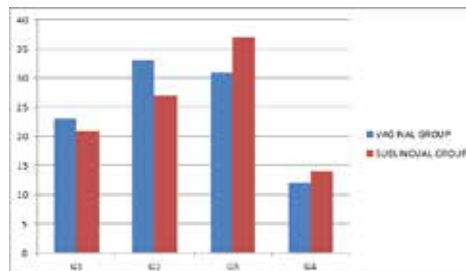
MTP and 100 patients diagnosed with missed abortion. Patients were selected irrespective of age, parity and marital status. Both study groups were comparable with regard to age, gravida, gestational age, cervical dilatation, duration of procedure and side-effects.

**CHART 1: COMPARISON OF AGE:**



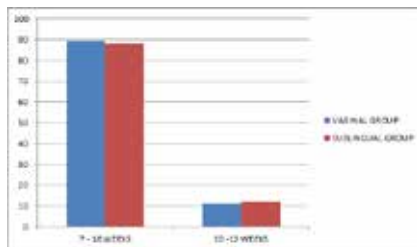
In the vaginal group 71% and sublingual group 67% were in the age group of 21-30 year. In vaginal group 11 % and sublingual group 12% belonged to the age group.

**CHART 2: COMPARISON OF GRAVIDA**



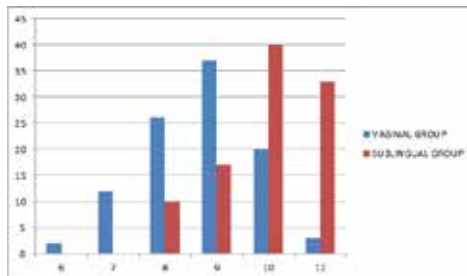
In vaginal group 34% belonged to Gravida II and 31 % belonged to Gravida III. In sublingual group 27% belonged to Gravida II and 38% belonged to Gravida III.

**CHART 3: COMPARISON OF GESTATIONAL AGE**



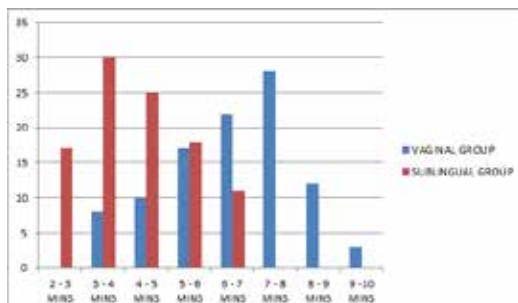
Among 200 cases, in vaginal group 89% were between 7 and 10 weeks, 11% in 10 to 12 weeks. In sublingual group 88% were in 7 to 10 weeks and 12% in 10 to 12 weeks.

**CHART 3: COMPARISON OF CERVICAL DILATATION**



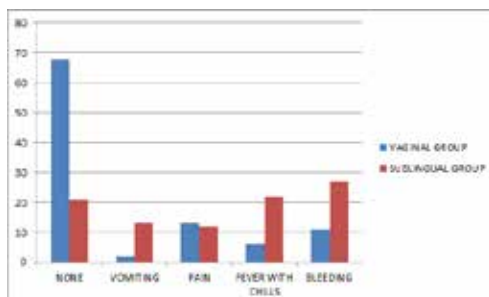
Mean cervical dilatation in vaginal group was 8.78+/-1.18 mmm and in sublingual group was 10.29+/-1.35mm with a significant 'p' value of <0.001.

**CHART 4: COMPARISON OF DURATION OF PROCEDURE**



The cervical dilatation was more in sublingual group than vaginal group and thus time taken for procedure is less in sublingual group.

**CHART 5: COMPARISON OF SIDE EFFECTS**



Side-effects were more with sublingual than vaginal group. In the sublingual group 21% were free from side-effects and 79% had side-effects. In vaginal group 66% were free from side-effects and only 44% had side-effects.

**SUMMARY:**

Misoprostol 400mcg administered sublingually and vaginally in these women 2 hour prior to the procedure (vacuum aspira-

tion) was tested for efficacy. The study showed that sublingual route gave the desired cervical dilatation compared to vaginal group. Thus overall it is concluded that sublingual misoprostol is preferred over vaginal misoprostol as cervical priming agent prior to 12 weeks of gestation.

**CONCLUSION:**

This study revealed that misoprostol by sublingual route has better advantage for cervical ripening than by vaginal route for first trimester abortion. The sublingual offers faster cervical ripening facilitating shorter duration of procedure. The dilatation achieved is also greater. It is concluded that a single dose of sublingual 400mcg misoprostol is comfortable and affordable to the patient maintaining the privacy and offers the necessary cervical ripening in a short period. However slightly increased side-effects observed in sublingual misoprostol use are not serious enough to cause complications.

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