



CODEN [USA]: IAJPB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF  
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.3401766>Available online at: <http://www.iajps.com>

Research Article

**A COMPARISON OF TWO PROTOCOLS OF INTRAVAGINAL  
MISOPROSTOL FOR SECOND TRIMESTER MEDICAL  
TERMINATION OF PREGNANCY**<sup>1</sup>Dr Bilal Ahmed, <sup>2</sup>Dr Fariha Saher, <sup>3</sup>Dr Muhammad Ahmad Javed Alvi<sup>1</sup>Medical Officer, Govt Said Mitha Teaching Hospital Lahore, <sup>2</sup>Women Medical Officer, Govt Kot Khawaja Saeed Hospital Lahore, <sup>3</sup>Medical Officer, Govt Said Mitha Teaching Hospital Lahore.

Article Received: July 2019

Accepted: August 2019

Published: September 2019

**Abstract:****Objective:** To look at the adequacy and reaction profiles of two distinctive measurement conventions of intravaginal misoprostol.**Material and Methods:** This randomized control trial was held at Mayo Hospital, Lahore from May 2018 to February 2019. An aggregate of 128 women, matured 18-40 years, made arrangements for second-trimester pregnancy end, were arbitrarily distributed to two groups of 64 each. Group – I ladies got vaginal misoprostol 400ug three hourly for a limit of 8 dosages in 24 hours. Ladies in group II got vaginal misoprostol 400ug six hourly for a limit of four portions in 24 hours. On the off chance that premature birth did not happen in 24 hours, similar regimens were reshaped. Without successful fetus removal in 48 hours, the misoprostol organization was deserted for careful enlistment.**Results:** The middle enlistment to fetus removal interim in the group – I (14.4 hours) was shorter than group – II (18.2) ( $p < 0.001$ ). The recurrence of fever was increasingly normal in the group – I ( $p = 0.01$ ). The pregnancy-related indications diminished in the two groups after misoprostol and abatement in bosom delicacy was most stamped a few hours after the organization. Misoprostol initiated fever was seen in any event five hours after organization in up to 37.5% ladies, this pinnacle being somewhat higher and happening prior in the group – I than in group – II. Lower stomach agony crested following three to four hours in the group – I and following five to six hours in the group – II, with no huge distinction in torment force or pain-relieving necessities. Other regular reactions were loose bowels pursued by queasiness and spewing in both the groups.**Conclusion:** Protocol of 400ug misoprostol regulated 6 hourly/24 hours is increasingly compelling in decreasing acceptance – fetus removal interim and instigating fruitful premature birth inside 48 hours with no real increment in reactions.**Keywords:** Reaction Profiles, Measurements, Intravaginal, Misoprostol, Regimens, Reoccurrence and Interim Removal.**Corresponding author:****Dr. Bilal Ahmed,**

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Please cite this article in press Bilal Ahmed et al., A Comparison of Two Protocols of Intravaginal Misoprostol for Second Trimester Medical Termination of Pregnancy., Indo Am. J. P. Sci, 2019; 06(09).

**INTRODUCTION:**

End of pregnancy has been polished around the world. In general end rates are comparative in creating and created world yet unlawful terminations are amassed in creating nations. Regular signs for the end of pregnancy incorporate considerable danger of a tyke being brought into the world with genuine inborn abnormalities, intrauterine fetal downfall and nearness of medicinal issue that represent a risk to the wellbeing or life of a mother [1]. In Pakistan end has been permitted legitimately for certain maternal and fetal signs, Annual premature birth rate in Pakistan is 29 for every 1000 ladies. An expected 890,000 illicit terminations are performed annually.

The second trimester of pregnancy extends between 13-26 weeks. Second-trimester pregnancy end is related with three to multiple times higher maternal mortality and dismalness dangers than end amid first trimester [2]. Both restorative and careful strategies are utilized for the end of pregnancy. Careful end conveys its very own dangers to maternal existence with progressing gestational age. It bears dangers of pelvic contaminations, cervical damage, intrauterine adhesions, exorbitant draining and dangers related to anaesthesia. Fragmented departure happens in 2-3 % of curettage procedures [3]. The medicinal end has been generally acknowledged as a powerful and safe administration and furthermore offers financial benefits from the decrease in a number of tasks. Different arrangements have been to a great extent utilized with various results [4]. Therapeutic end of second trimester pregnancy is routinely performed by organization of vaginal prostaglandins or their analogues, and has generally supplanted not so much powerful but rather more intrusive careful techniques for fetus removal enlistment for example with cervical Foley's catheter, F2 alpha organization by means of Foley's catheter trailed by oxytocin imbue and/or anatomy [5]. Misoprostol, a manufactured simple of prostaglandin E1 is likewise the favored single technique for pregnancy end in a primigravida with Bishop Score < 4, who prior required cervical pretreatment with protein E2 pessaries before careful acceptance of work. It is additionally practical in our setup, being effectively accessible and being thermostable, can be put away at room temperature. The point of our examination was to look at the adequacy and symptoms of 400ug misoprostol organization intravaginally like clockwork when contrasted with longer measurement interim of 6 hours to figure out which routine has less reaction and is successful in initiating total premature birth in 24-48 hours.

**PATIENTS AND METHODS:**

This randomized control trial was held at Mayo Hospital, Lahore from May 2018 to February 2019. One hundred and twenty-eight (n=128) sound ladies with therapeutic signs for end of second trimester pregnancy between 14 – 24 weeks for example anencephaly, missed fetus removal, inherent inconsistencies chromosomal variations from the norm, extreme PET, serious oligohydramnios, invulnerable/non-safe fetal hydro's, hydrocephaly, PPRM3 were enrolled to the preliminary and arbitrarily appointed into two groups. Ladies on customary professionally prescribed medications, for example, those with heart infection, endless basic hypertension or draining issue, different pregnancy, past two cesarean segments and nursing mother were excluded from the investigation. Educated composed assent for legitimate end regarding pregnancy was acquired from every one of the couples and pelvic USG examination was performed to affirm incubation and to avoid different pregnancies. The group assignments were put into fixed wraps, and opened in genie OPD and after that ladies were admitted to the clinic. The two groups were similar concerning maternal age, equality sign for pregnancy end, gestational age and maternal tallness and weight. Ladies dispensed to the bunch I were given misoprostol 400ug (1 tab of coyote, Searle) in back vaginal fornix each three h, up to a limit of eight portions more than 24 hours. Ladies in the group – II were given the same medication portion intra-vaginally at interims of six hours, up to limit of four dosages. Information on fundamental result proportions of the preliminary was gathered to quantify the length of enlistment premature birth interim in the two regimens, and viability to accomplish total fetus removal in 24-48 hours after beginning organization of misoprostol. Inj Tampax and tab paracetamol 500 mg for relief from discomfort and fever were given. Post premature birth, baby and placenta were analyzed for culmination. Careful departure for inadequate premature birth was done under general anaesthesia. The measure of blood misfortune was surveyed clinically by going to doctor. On the off chance that a lady in either group neglected to prematurely end 24 hours after misoprostol organization, the second course of misoprostol with the same convention was given. On the off chance that fruitful fetus removal did not happen following 48 hours either routine was deserted or quiet re-surveyed for elective administration, as indicated by the doctor discretion. The standard deviation with normal acceptance interim time was 16.2 h. The enlistment – premature birth interim was characterized as the interim between the season of organization of the first

portion of misoprostol till the expulsion of baby and placenta. Complete fetus removal was characterized as the ejection of both without usable intervention. Understudy t-test and Chi-square were connected as the trial of noteworthiness for quantitative and subjective information, individually.

### RESULTS:

Sums of 128 ladies in this preliminary were haphazardly partitioned into two groups of 64 ladies each. In group – I, 20 ladies (40%) and 17 in the group – II (34%) were prime gravid with no measurably huge Contrast. Concerning of the fetus removal process in the correlation of the two conventions; 48 ladies (75%) in the group – I prematurely ended inside 24 hours contrasted with 39 ladies (60.9%) in the group – II (Table-1).

**Table – I:** Efficacy of medical abortion in two protocols misoprostol administration

	<b>Group-1 (n=64)</b>	<b>Group-II (n=64)</b>	<b>p-value</b>
Induction-abortion interval	14.4h	18.0h	<0.01
Complete abortion (24h)	48 (75%)	39 (68.9%)	<0.05
Complete abortion (48h)	12(18.3%)	19 (30.3%)	<.002
Incomplete abortion	4 (6.2%)	6 (9.3%)	<0.05

Inside 48 hours after the second course of misoprostol organization by similar conventions, the general effective complete fetus removal rate in group – II was measurably higher than in group – I There were 4 (6.2%) and 6 ladies (9.3%) in group – I and II separately, who did not prematurely end totally inside 48 h and required careful departure of RPOC's. The middle acceptance – fetus removal interim was

essentially shorter in group – I (14.4 hours) than in group – II (18 hours) Regarding absence of pain prerequisites, 38 and 34 ladies in group I and II individually, got inj campax; the thing that matters was not measurably noteworthy and second portion was not required in any patient. The recurrence of reactions with misoprostol in the two groups (Table-2).

**Table – II:** Incidence of side effects in the two protocols of misoprostol administration

<b>Side Effects</b>	<b>Group-1 (n=64)</b>	<b>Group-II (n=64)</b>	<b>P-value</b>
Nausea	5(7.8%)	7(10.9%)	0.001
Vomiting	4(6.2%)	4(4.6%)	0.00
Diarrhea	6(9.3%)	4(4.6%)	<0.005
Headache	1(1.5%)	1(1.5%)	0.01
Rash	2(3.1%)	1(1.5%)	>0.05
Fever (>38°C)	24(37.5%)	8(12.2%)	>0.005
Breast Tenderness	1(1.4%)	2(2.7%)	0.00
Genital Infection	0	0	-
Abdominal cramping and pain lower abdomen	64(100%)	62(94%)	>0.001

Standard (on affirmation) pregnancy-related signs and manifestations were accounted for by 60% ladies and were uniquely diminished inside a few hours of misoprostol organization, aside from sickness and retching, detailed by 9.3% and 6.2% of ladies from the two groups aggregately. The rate of loose bowels happened all things considered two hours after misoprostol organization in 7.8% everything being equal. The level of ladies with rash was exceptionally low (2.3%) in the two groups consistently. The occurrence of lower stomach agony and cramping identified with the premature birth procedure crested

before and was progressively continued and regular in the group – I. The most well-known treatment given for symptoms helped with discomfort medicine fundamentally inside three to four hours after misoprostol organization.

### DISCUSSION:

Medicinal end in the second trimester is the best strategy for decision to achieve the pregnancy end. Misoprostol is a known safe and officious specialist for pregnancy end, creates a minimal number of confusions, a minimal measure of worry for the

patient and is generally effective [6]. In this examination, we looked at the viability and symptom profiles of intra-vaginal misoprostol 400 ug directed in two unique conventions with respect to measurement interims. The total fetus removal rate with 400 ug misoprostol 6 hourly in the second trimester was 89% [7]. In our investigation, we found that the utilization of Misoprostol by this course is a protected and successful strategy for end of pregnancy. The fundamental strategy utilizing Misoprostol vaginally is economical and was powerful in 52% of the ladies doing uterine departure inside initial 24 hours since the beginning of acceptance when contrasted with 86% in the group [2]. It is to reference here that other prostaglandin arrangements like PGE2 pessaries, vaginal additions and intra-cervical gels are other practically identical techniques for acceptances of work in these circumstances however generally expensive or potentially not unreservedly accessible. Since expense is a real worry in creating nations, subsequently finding a moderate technique that is more viable than the traditionalist strategy for oxytocin implantation and in the meantime is more affordable than the most recent and extravagant PGE2 arrangements was of most extreme significance. An investigation by Javed and Maryam demonstrated that sublingual misoprostol (Group 1) is as successful as vaginal misoprostol (Group 2) yet with more sickness and heaving. Successful termination was accomplished in 96% patients in group 1 and 94 % in group 2 yet with lesser symptoms, so it appeared vaginal course is a better alternative for pregnancy end, as found in our examination with comparable results [7]. Consequences of our investigation indicated a huge contrast between the two dose conventions. The convention of vaginal misoprostol 400 ug like clockwork was more viable than three hours of the interim convention. The fetus removal achievement rate inside 24 hours was higher in the group with misoprostol organization at six hours interim, however the total premature birth rate in 48 h was very little unique in two groups, so it was determined that in 400 ug 6 hourly the general acceptance to fetus removal time isn't much huge than in 400 ug 3 hourly convention, yet same outcomes can be accomplished in low measurements misoprostol convention which is all around endured with a couple of fundamental medication-related reactions which are self-restricting and not portion related.. The complete dose of misoprostol required in Group-I and II were 3200 ug and 1600 ug respectively [8]. The recurrence of gastrointestinal reactions in our examination was low and not legitimately identified with all out a portion of misoprostol utilized in either

group. Our outcomes demonstrate that pregnancy-related side effects decline not long after misoprostol organization, even before the fetus removal procedure has begun, with the special case of queasiness and heaving, which are likewise misoprostol related side effects [9,10]. While gastrointestinal symptoms were gentle after vaginal organization, the event of fever was discernible in the group – I with diminished recurrence in the group – II. Different investigations appear about 40% occurrence of fever [11, 12]. Comparative discoveries 37.5% and 12.5% in groups – I and II separately and revealed in our investigation. Contrasting recurrence of the event might be because of the distinction of portion recurrence (three hours versus six hours) of misoprostol administration [13, 14].

### CONCLUSION:

This examination demonstrates that the convention of 400 ug misoprostol organization at six hours interims more than 24 hours is a sheltered and viable routine for second-trimester fetus removal enlistment. The dose of misoprostol intravaginally up to 1600 ug more than 24 hours is very much endured with a couple of fundamental medication-related symptoms which are self-restricting and not portion related. Along these lines, Misoprostol is a viable and safe medication, so it ought to be utilized with certainty for end of pregnancy.

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