

# Role of Misoprostol in First Trimester Abortion

Dr.Dijla Abd Almutalb Khan

Special's diploma in gynecology of obstetric

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**Abstract-** Missed abortion is the failure of fetal development and retained in uterus not expelled with closed OSE. ultra sound show an empty gestational sac or fetus without cardiac activity, constitute approximately 5% clinically diagnosed pregnancy, 95% of surgical termination was effective ,surgical termination have many complication as risk of general Anesthesia and risk of bleeding during surgery with risk of trauma to uterus or intestine or bladder due to perforation to uterus with increase maternal morbidity in all the world with costs .of surgery and hospitalization with risk infection and risk of infertility due to uterine adhesion many studies show that medical management might be more suitable instead of surgical evacuation we perfume our study Al Zahraa hospital of gynecology and obstetrics in Al Najaf number of patient in first trimester pregnancy use misoprostol 800 Mg vaginally and compare an effectiveness with other studies for the same subject we found its very effective with low side effect , we recommend its use better than waiting for spontaneous onset of abortion with loss of time during which is emotional disturbance for the mother is occur with risk coagulation disturbance that increase need for blood and increase maternal morbidity missed abortion is failure of fetal development before 20 weeks with closed cervix and slight vaginal bleeding and uterus failed to expelled it.

**Index Terms-** Misoprostol. First Trimester. Abortion

## I. INTRODUCTION

Misoprostol is a synthetic prostaglandins E1 analogue which was originally development to prevent non-steroidal anti-inflammatory drugs related gastric ulcers however it was has been used for various other indication in obstetrics and gynecology medical management using misoprostol combined with mifepristone for missed abortion has been widely studied mifepristone is expensive that's why misoprostol alone is recommend and its safety and its effectiveness is proved it could be given oral sublingual or vaginal while dose ranged from 100 micrograms to 800 Mg that most suitable route and dose of misoprostol is not yet established ,single dose 800Mg misoprostol be vaginal or oral route for missed abortion was recommended.

The usual treatment is suction curettage, however an increase number of studies have shown that medical treatment is effective and safe more than waiting spontaneous expulsion. there is so many regimens for administrating misoprostol 800 Mg single dose 800 Mg misoprostol alternatively 600Mg for sublingual rout, treatment may be repeated twice with a 3 hr. interval, but more studies needed to evaluate the additional

efficacy of repeated, doses of misoprostol, during treatment hospitalization is not necessary as the time expulsion varies considerable from hours or over several weeks the patient should be near hospital when bleeding occur. misoprostol has side effects as:

1. bleeding many large amount or spotting, bleeding continue with misoprostol for two weeks, patient should be attach provider when bleeding occur.
2. cramping usually start with in the first few hours but may be begin with in minute after misoprostol use
3. fever with chills are common side effect but transient
4. nausea and vomiting
5. diarrhea
6. skin rash

Following administration misoprostol un dissolved tablet may be found in the vaginal examination ,this doesn't affect the absorption of misoprostol routes misoprostol administration oral vaginal sublingual buccal or rectal ,vaginal rout associated with slower absorption greater effect on cervix and uterus there is no significant difference between vaginal misoprostol that administrated dry that vaginal misoprostol administrated moisture with water saline or acetic acid , sublingual rout cause uterine contraction at a rate equivalent to vaginal administration and has less variation in absorption .buccal rout has pattern of absorption similar to vaginal rout

## II. METHODS AND MARTIAL

our study Al Zahraa hospital of gynecology and obstetrics in Al Najaf we took 30 patients , (83.4%) were admitted to hospital with first trimesters missed abortion ,we use 800 Mg of misoprostol vaginally , initial dose than repeat 400 Mg after 8hr up to three days in three doses of 400 Mg , most of them starting heavy vaginal bleeding and open OSE need evacuation under analgesia only other end with complete abortion proven by ultra sound other end with in complete abortion with slight vaginal bleeding followed by another dose of misoprostol and frequent ultra sound until be complete . 5 patients (16.6%) from 30 patients retained missed abortion and under general anesthesia in operating theater after five days of misoprostol administration in comparison with other studies its acceptable result.

## III. DISCUSSION.

misoprostol prostaglandin E1analogue has cervical ripening and uterotonic properties that make it useful missed abortion Graziosi et al reported success rate 60% using 800 Mg

misoprostol without complication. Gronlund et al used 400 Mg of misoprostol alone or in combination with mifepristol and conclude that misoprostol is effective in most case and addition of mifepristol doesn't increase the success rate Ayres-de-Campos et al use 600 Mg he founded its safe and effective for inducing complete abortions 800 Mg of misoprostol can be administrate sublingual twice with 3-4hr interval for maxims three doses ,can be given orally or sublingual ,vaginally can be repeated 6-8hr for three doses major expulsion occur in 4hr after administration of misoprostol ,hospitalization is not necessary Buccal and vaginal rout have similar effect on uterine tone and activity, administration of NSAIDS for pain relief doesn't alter the efficacy of misoprostol no drug interaction with misoprostol Vaginal rout is more effective than oral rout , sublingual rout is more effective than oral rout

#### IV. CONCLUSION.

use misoprostol in termination of first trimester abortion is very effecting due to uterotonic and cervical ripening properties with low side effect with improve maternal outcome and decrease maternal morbidity from missed abortion regardless to rout of administration whether vaginal or sublingual or oral.

#### V. RECOMMENDATIONS.

Further studies are required in the same subject that concentrated upon the most effective rout for administration of misopristol with short period of activity and less side effect

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#### AUTHORS

**First Author** – Dr.Dijla Abd Almutalb Khan, Special's diploma in gynecology of obstetric