Research Article

Study of combination of mifepristone and misoprostol in termination of pregnancy upto 63 days

Raghunath Shinde[1], Rahul Shah[2*], Sudhir S Bhave[3]

[1]Assistant Professor, [2]Junior Resident, [3]Professor and HOD, Department of OBGY, Bharati Hospital, Sangli, Maharashtra, INDIA.
Email: sharahul13@yahoo.com

Abstract

Introduction: Study was carried out to know the efficacy, safety, and adverse effects of medical termination of pregnancy with the use of drugs like mifepristone and misoprostol. They were administred orally and per vaginally respectively in pregnancy upto 63 days pregnancy were confirmed by clinical and USG examination. **Methods:** 50 cases willing for undergoing medical abortions fulfilling the inclusion criteria were selected. On day one, 200 mg of Mifepristone was given orally with water. On day three, 400 mcg of Misoprostol were kept per vaginally. Patients were observed for 4 hr to know the response of the drugs like P/V bleeding, lower abdominal pain andbackache. If there is no response observed then addition dose of 400 mcg Misoprostol kept Per vaginally. Patient discharge on 4th day and asked her to follow up after two weeks to confirmed the completion of abortion by USG pelvis. **Results:** Completion of abortion rate in women with amenorrhoea near or less than 49 days is 95% versus 63 days is 93.34%. Women with induction abortion interval within 4 hr. in two group were 95% and 93.34% respectively. The success rate at the end of 14th days in group A is 95% and in group B is 93.34%. **Conclusion:** As this regimen is non invasive and cost effective more acceptable by the patient who are coming for termination of pregnancy. Medical abortion with the Misoprostol 200 mg and 400 mg on Day 1 and 3 was carried out to demonstrate that combination of Mifepristone andMisoprostol can be effective and safe regimen upto 63 days of pregnancy.
Key Word: mifepristone, misoprostol.

Address for Correspondence
Dr. Rahul Shah, Junior Resident, Department of OBGY Bharati Hospital, Sangli, Maharashtra, INDIA.
Email: sharahul13@yahoo.com
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INTRODUCTION

On an average 11 million abortions take place yearly and around 20,000 women die every year due to abortion related complications.[1] Abortion is a fundamental right of women to maintain the physical and mental health. Only human beings on earth have a choice to limit their procreation. Incidence of illegal and unsafe abortions is increasing day by day inspite of legalisation of abortion. 10% of maternal mortality is due to septic abortion.[2] According to modern obstetrics their is a need of introducing a method which is non invasive , effective, safe, reliable and less hospital stay there by reducing in all cost. Use of drugs to induce abortion upto 63 days is, low cost, safe ,effective and less complicated compared to invasive method. Medical abortion with a combination of Mifepristone and Misoprostol is safe and effective methods. The present study aims is to prove that combination of Mifepristone and Misoprostol is effective and safe upto 63 days of pregnancy. Mifepristone is a Norethinestrone derivative is a synthetic progesterone (block progesterone receptors) Misoprostol is a methyl ester of prostaglandin that stimulate uterine contraction.

AIMS AND OBJECTIVES

To compare success rate of abortin in group A and group B. Abortion induction interval. Adverse effect like abdominal pain, nausea, vomiting, diarrhoea.

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METHODS

50 patients study was carried out in Bharti Vidyapeeth Deemed Univesity Medical Collegeand Hospital, Sangli, Maharashtra from 3rd June 2013 to 31st December 2014. 20 patients taken in group A i.e less than 49 days and 30 patients taken in group B i.e up to 63 days of pregnancy.

Inclusion criteria

1) Written informed consent for medical termination of abortion.
2) Gestational age up to 63 days,
3) Commitment to follow up till needed ,
4) Willingness to undergo surgical intervention if failure or excessive PV bleeding occurs

Exclusion criteria

Anaemia Hb.< 8gm%, Ectopic pregnancy, Adnexal mass, Coagulopathy disorder, Adrenal failure, Cardiovasular diseases,Renal disease, Liver diseases, Respiratory diseases, Glaucoma,Seizure, Allergy to drugs.

Investigation

Complete blood count, blood sugar random, Sr. Urea, Sr. Creatinine, Urine – routine and micro And USG-Pelvis

Day-1

200 mg Mifepristone given orally. Anti D given to Rh negative mothers

Day-3

400 mcg Misoprostol kept per vaginally. Scheduled is to be completed even if she aborted by Mifepristone only.
If patient did not abort after 4 hr of Misoprost then additional dose of 400mcg Misoprost is kept Per vaginally.

Day-4

Discharge the patient and asked to follow up.

Day-14

Women called for follow up for clinical and USG examination.
Success is defined as complete expulsion of products of conception with no need for surgical intervention. The induction abortion interval is defined as 'The interval from the administration of Prostaglandin to the passage of products of conception. Side effects like abdominal pain, nausea, vomiting, diarrhoea are noted. Failure of the study is considered if-
Surgical curettage performed for any reason like Presence of gestational sac, persisting cardiac activity 2 weeks and excess P/V bleeding.

RESULTS

Table 1: Baseline Characteristics

Characterististics	Gestational age</= 49 days (group A) (n=20)	Gestation age35-50days (group B) (n=30)
Parity		
Primigravidas	4(20%)	3(10%)
Multigravidas	16(80%)	27(90%)
Previous LSCS	4(20%)	6(20%)

Table 2: Induction abortion interval

Induction abortion interval	Gestational age</=49	Gestational age 50-63
(in hours)	Days (group A)	Days (group B)
</=4	17(85%)	24(80%)
>4	3(15%)	6(20%)

Table 3: Additional dose of Misoprostol

Gestational age (in days)	Women required additional Dose of Misoprostol
</=49 (group A)	3(15%)
>/50 (group B)	6(20%)

Table 4: Adverse effects

Adverse effect	Gestational age</=20 days (group A)	Gestational age 50-63 days (group B)
Abdominal pain requiring analgesic	3(15%)	6(20%)
Nausea	1(5%)	3(10%)
Vomiting	1(5%)	2(6.67%)
Diarrhoea	-	1(3.34%)

Table 5: Outcome

Gestational age (in days)	Success rate
</=49 (Group A)	19(95%)
50-63 (Group B)	28(93.34)

Table 1 shows the baseline data of 50 women taken in the study. Two groups show comparision of parity and previous LSCS. Table2 shows group A 15% and group B 20% additonal dose of 400mcg kept P/V required. Table3 shows group A 85% and in group B 80% aborted within 4 hrs. Table 4 shows adverse effect like abdominal pain, nausea, vomiting and diarrhoea. Table5 shows completion of abortion rate in women with amenorrhoea near or less than 49 days is 95% verses 63 days is 93.34%.

DISCUSSION

About 41.6 millions abortion occur annually and 19 millions of them are unsafe.[3] Every 10 pregnancy in one is unsafe abortion.[4] The complete abortion rate in average

study is in agreement with that of peyran *et al*.[5] Success rate of our study in group A is 95% and in group B is 93.34% with additional dose of vaginal Misoprostol. Ashok el at reported a high(96.7%) rate of abortion in 1072 women with 50 to 63 days of gestation, Schaff *et al* in their study of 993 women at less than or equal to 56 days of gestation reported a success rate of 97%.[6,7] Pyamar and Creinin proved the efficacy of vaginal misoprost in achieving complete abortion between 7 to 9 weeks of gestation.[8] In our study loss of blood, increase with the increase in gestational age. Nearly all the patients from the date of induction bleeds up to maximum 10-13 days.

But no patient required blood transfusion in our study. Hemorrhage requiring transfusions in only about 1 in 1000 cases of medical abortions as reported by Grimes *et al* in 1997.[9]

CONCLUSION

As this regimen is non invasive and cost effective so more acceptable by the patients who are coming for termination of pregnancy. Medical abortions with the Misoprostol 200 mcg and 400 mcg on Day 1 and 3 was carried out to demonstrate that combination of Mifepristone and Misoprostol is effective and safe regimen upto 63 days of pregnancy.

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