"To compare the induction to abortion interval time by medical and surgical method in second trimester abortion"

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Abstract

Introduction- Induction of abortion is one of the most commonly practiced interventions in modern obstetrics; Options for cervical preparation/ ripening include; Prostaglandins, Mechanical dilators, Hygroscopic dilators, Low dose oxytocin infusion, Nitric oxide donors

Aims and objective- To compare the induction abortion interval and complication withmedical management and surgical management mifepristone, Misoprostol and foley catheter.To compare the successful abortion within 24 and 48 hr.

Material and methods- The present study entitled "To compare the induction abortion interval with medical mifepristone, Misoprostol and surgical foleyscatheter" was conducted in the Department of Obstetrics and gynaecology,gmc Medical College and Shahdol, (M.P.) during the period of September 2021 to September 2022 in 150 patients. Intrauterine pregnancy of second trimester, Patients giving the consent, Abortion being made in compliance with the abortion act 1971 are included. Severe anaemia, alcohol abuse, Allergy from drugs, Previous uterine scaris excluded.

After counselling and consent, patients were divided in the three groups. The respective drugs given, General examination was done, maternal vitals assessed every 30 minutes, Complete obstetric examination and Primary laboratory investigations done. Also monitor the progression to cervical ripening and abortion.

Result and conclusion- Based on present study following conclusion can be drawn;in second trimester. mifepristone plus misoprostol is good combination for 2ndtrimester abortion with minimal maternal side effects, when compared with Misoprostol alone and foleys catheter plus oxytocin. The only major side effect was headache, which was of mild intensity and well tolerable, hypotension was insignificant side effect. mifepristone can be given on outpatient basis and is safe with minimal complications.

Induction-abortion interval was least for mifepristone followed by Misoprostol, and maximum for foleys. So mifepristone plus misoprostol seems to be an effective and safe drug in second trimester abortion.

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INTRODUCTION

Abortion is the ending of pregnancy by removing a fetus or embryo from the womb before it can survive on its own. For induction cervical ripening is very important,to prevent complications.

Induction of cervical ripening and labour remains challenging.So, it is vital importance to coordinate onset of labour with adequate cervical ripening.

Abortion in second trimester is usually done because of a medical problem or illness in the pregnant mother or the fetus.The most common being Eclampsia, uncontrolled hypertension ,severe Preeclampsia,Intrauterinefetaldemise, Congenital fetal anomalies,Cardiac disease, Uncontrolled diabetes mellitus, Uncontrolled epilepsy or psychiatric illness, Termination of ongoing pregnancy (MTP) due to contraceptive failure; keeping this in mind we are doing this study

Induction of abortion is successful depending on the degree of cervical ripening.

Bishops score are subjective,but a score of less than 5 suggests further ripening is needed,while a score of 9 or greater suggests ripening is completed.Preparing the cervix prior to surgical\medical abortion, make the procedure both easier and safe.Options for cervical preparation/ ripening include; Prostaglandins, Mechanical dilators, Hygroscopic dilators, Low dose oxytocin infusion, Nitric oxide donors.

AIMS AND OBJECTIVES

- To compare the induction abortion interval with mifepristone and misoprostol, Misoprostol alone and foley catheter plus oxytocin.
- To compare the successful abortion within 24 and 48 hr.

MATERIALS AND METHOD

The present study entitled "Comparative Study of Role of mifepristone plus misoprostol and misoprostol alone and foley plus misoprostol in second trimester abortion." was conducted in the Department of Obgy, GOV Medical College SHAHDOL (M.P.) during the period of September 2021 to September 2022.. Study conducted over a period of one year.

A total number of 150 women gave their informed consent to participate. The women were between 18-35 years of age, allotted under 3 groups. This is randomised controlled trial, all patients admitted through OPD and Obstetrics unit OF Hospital , having ultrasound evidence of a fetus requiring termination of pregnancy or due to contraceptive failure. Women with any contraindication to use of MIFEPRISTONE AND MISOPROST cardiac disease, or hypersensitivity to the drug.

During this procedure vital signs, symptoms and adverse effects were recorded at base line and then every 3 hourly until finishing therapy. Time of dose tablet given was noted and induction –abortion interval was recorded.

STUDY DESIGN-The patients were divided into 3 groups;

Group 1 (mifepristone plus misoprostol)- patients were given 200mg mifeorally and after 14hours only 400 misoprostol given Per vaginal,

Group 2 (Misoprostol alone): - 400 mcg of Misoprostol was placed in posterior vaginal fornix, and repeated after6 hour 3doses .

Group 3 (foley catheter plus oxytocin):- intracervical folly's catheter, 50 cc filled with normal saline placed and traction given and assessed after 8 to 10 hours or till foley's out. And oxytocin.

INCLUSION CRITERIA

- Second trimester of pregnancy who fulfil the criteria of ABORTION Patients who weregiving consent.

EXCLUSION Criteria

- Previous uterine scar

METHODOLOGY

After proper counselling and consent, patients were divided in the three groups and given the respective drugs, General and obstetric examination, maternal vitals assessed., Complete obstetric examination and Preliminary laboratory investigations done like CBC, ABORH LFT RFT Urine microscopy.

Time taken from initiation of therapy to abortion noted,Rateof failure to abortion,

If the study method fails then further management will be done according to the condition of cervix and Bishop's score.If there is no chance of abortion through vagina thenhysterotomy will be done that is very rare.

Statistical analysis

Appropriate statistical analysis was done.Data was analysed by using ANOVA test to compare between the three groups. P value < 0.05 was considered significant at the 0.05 level

OBSERVATION

TABLE 1
AGE DISTRIBUTION

Age in years	Number of cases	Percentage
18-21	47	31.33
22-25	73	48.66
26-30	23	15.33
>30	07	4.60
Total	150	100

- This study, enrolled patients were of 18-35 years age group; mean ± SD of age was 23.61±3.47. Gestational age was taken between 12-20 weeks, with 12-15 weeks were 92, with 16-18 weeks were 45 and with 19-20 weeks were 13; from which 53 were primigravida while 97 were multigravida;

TABLE 2
GESTATIONAL AGE

Gestational age (in weeks)	Number of cases	Percentage
12-15	92	61.33%
16-18	45	30%
19-20	13	8.66%
Total	150	100%

TABLE 3
PARITY DISTRIBUTION

Parity	Frequency	Percentage
Primi	53	35.33
Multi	97	64.66
Total	150	100

- Indication for termination which includes, fetal condition requiring termination were 22, maternal condition requiring termination were 29, contraceptive failure 59, intrauterine fetal demise were 25 and others were 15.

TABLE 4
TERMINATION OF PREGNANCY INDICATIONS

Indication	Frequency	Percentage
Fetal conditions (variouscongenital anomalies)	22	14.66
Maternal conditions requiring termination	29	19.33
Contraception failure	59	39.33
Intrauterine fetal demise	25	16.66
sexual assault	15	10

Total	150	100

TABLE 5
INDUCTION ABORTION INTERVAL FOR GROUP ONE

Time (in hrs)	Frequency	Percentage
12-24	17	34
25- 36	25	50
37-48	6	12
>48	2	4
Total	50	100

- Induction abortion interval for mifepristone plus misoprost, 34% aborted within 12-24 hours, 50% aborted within25-36 hours, 12% aborted within 37-48 hours and 4% aborted in >48 hours.

TABLE 6
INDUCTION ABORTION INTERVAL FOR GROUP 2

Time (in hrs)	Frequency	Percentage
12-24	20	40
25-36	25	50
37-48	3	5.76
>48	2	4
Total	50	100

- Induction abortion interval for misoprost alone 40% aborted within 12-24 hours, 50% aborted within 25-36 hours, 5.76% aborted within 37-48 hours, and 4% aborted >48 hours.

TABLE 7
INDUCTION ABORTION INTERVAL FOR GROUP 3

Time (in hrs)	Frequency	Percentage
12-24	7	14
25-36	12	24
37-48	19	38
>48	12	24
Total	50	100

- Induction abortion interval for folys catheter plus oxytocin, 14% aborted in 12-24 hours, 24% aborted within 25-36 hours, 38% aborted within 37-48 hours, and 24% in >48 hours.

TABLE 8
Comparison of induction abortion interval for the three groups

Agent	Mean	Standard deviation(SD)	P Value
GROUP ONE	28.32	± 9.84	0.000
GROUP TWO	29.00	±7.22	
GROUP THREE	38.76	±9.87	

*P value is significant

The table shows the mean ±SD of induction abortion interval of the three groups, the mean ±SD for mifepristone plus mesoprost was 28.32±9.84, for misoprost alone mean ±SD was 29.00+/-7.22, and for foleys plus oxytocinmean ±SD was38.76 ±9.87. P -value was 0.000 which is considered to be statistically sig.

DISCUSSION

Medical second trimester termination of pregnancy with mifepristone and misoprostol is an effective method in clinical use. The 24-hour abortion rate (94%) of our study supports similar studies in which success rates vary from 74 to 97% (7,12,18–20). The outcome remains significant when compared to results (success rates from 89 to 98%) of second trimester medical abortion.

In this study, mifepristone plus misoprostol was comparatively studied with Misoprostol alone and foleys catheter plus misoprostolused for second trimester abortion . 150 cases were included in this study and divided into three groups. The outcome was Induction-abortion interval.

Induction-abortion interval for mifepristone plus misoprostol was mean±SD was 28.32±9.84.While induction abortion interval for Misoprostol alone was mean±SD was 29.00±7.225 and for foleys cather plus oxytocin mean±SD was 38.76±9.87. P-value was 0.000 which is significant.

The result shows that induction-abortion interval is least for mifepristone followed by Misoprostol and maximum for folyes.Comparison is also done between the three groups which shows that there is significant difference or p-value is significant between mifepriostone &folys and between misoprost alone &folyes , while it is non-significant between mifepristone &misoprost

SUMMARY

The present study has been undertaken to see the role of mifepristoneplus misoprost in second trimester abortion and campare with misoprostol alone and folys catheter plus oxytocinn; 150 patients were studied, 50 in each group, distribution of cases was random with an indication for second trimester abortion.

- This study, enrolled patients were of 18-35 years age group; mean ± SD of age was 23.61±3.47. Gestational age was taken between 12-20 weeks, with 12-15 weeks were 92, with 16-18 weeks were 45 and with 19-20 weeks were 13; from which 53 were primigravida while 97 were multigravida;
- Indication for termination which includes, fetal condition requiring termination were 22, maternal condition requiring termination were 29, contraceptive failure 59, intrauterine fetal demise were 25 and others were 15.
- Induction abortion interval for mifepristone plus misoprost, 34% aborted within 12-24 hours, 50% aborted within25-36 hours, 12% aborted within 37-48 hours and 4% aborted in >48 hours.

- Induction abortion interval for misoprost alone 40% aborted within 12-24 hours, 50% aborted within 25-36 hours, 5.76% aborted within 37-48 hours, and 4% aborted >48 hours.
- Induction abortion interval for folys catheter plus oxytocin , 14% aborted in 12-24 hours, 24% aborted within 25-36 hours, 38% aborted within 37-48 hours, and 24% in >48 hours.

CONCLUSION

On the basis of present study following conclusion can be drawn; in second trimester, for successful abortion.mifepristone plus misoprost is good combination
compare with Misoprostol alone and foleys catheter plus oxytocin.

mifepristone can be given on outpatient basis and is safe with minimal complications.

induction-abortion interval was least for mifepristone plus misoprostolfollowed by misoprostol alone and maximum for folys catheter plus oxytocin , so from this study we found that induction abortion interval can be reduced with mifepristone,.

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