ORIGINAL ARTICLE

A COMPARATIVE STUDY BETWEEN MIFEPRISTONE WITH MISOPROSTOL AND MISOPROSTOL ALONE FOR 2ND TRIMESTER TERMINATION OF PREGNANCY

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ABSTRACT: OBJECTIVE: To compare the efficacy of mifepristone with misoprostol and misoprostol alone for 2nd trimester termination of pregnancy. **MATERIAL AND METHODS:** Total 100 patients admitted in JSS Medical College & Hospital, Mysuru for termination of pregnancy between 13-28 weeks were selected for the study. 50 patient received mifepristone 200 mg orally followed by tab. misoprostol 200mg-400mg per vaginally after 24-36 hours. Vaginal misoprostol repeated 4-6 hourly till pregnancy is terminated other 50 patients received only vaginal misoprostol. The results were analysed. **RESULTS:** The success rate in both regimens 100%. Induction to abortion interval was shorter in mifepristone with misoprostol group. Mean dose of misoprostol required was around 2.53 (900-1000 microgm) in combined group and 3.44 (1400 microgm) in the misoprostol alone group. **CONCLUSION:** pre-treatment with mifepristone 200mg 24 hours before the induction with misoprostol significantly reduce the induction to abortion significantly reduces the induction to abortion interval and reduces the dose and side effects of misoprostol.

KEYWORDS: 2nd trimester pregnancy termination, mifepristone, misoprostol.

INTRODUCTION: Second trimester termination of pregnancy is more difficult and problematic compared to first trimester. Various surgical and medical methods have been tried for the second trimester MTP with varying success and induction abortion interval.

Second trimester abortions constitute 10-15% of all induced abortions worldwide[1] but are responsible for 2/3rd of major abortion related complications. During the last decade medical methods for second trimester induced abortions have been considerably improved.

Prostaglandins are associated with higher success rate and short induction to abortion interval. Misoprostol a synthetic prostaglandin E1, has proven its efficacy as an abortifacient for both I & II trimester abortions. It is better than other prostaglandins as it is cheap, cost effective stable at room temperature and does not need refrigeration. It has fewer side effects compared to others. It is a potent uterotonic and cervical ripening agent free from broncho constrictive effect. Can be used alone or in combination with other drugs.

Mifepristone [RU486] acts by blocking progesterone receptors. It results in Intra Uterine Death (IUD) and also sensitises the uterus to the activity of prostaglandin. So the combination of both results in improved efficacy for II trimester termination of pregnancy.

MATERIALS AND METHODS: The study was conducted on 100 selected cases for II trimester termination from July 2012 to June 2014. Detailed history of the case was obtained and examination was done. Patients with ≥2 previous caesarean section, gestational age > 28 week and any H/o hypersensitivity to the drug used are excluded from study.

After written consent for termination cases were randomly divided into two groups. Study group received 200 mg of mifepristone on admission. After 24-36 hour 200-400 microgram of misoprostol inserted vaginally and thereafter repeated 4-6 hrly, until the abortion occurs or upto a maximum of 6 doses. Control group received only misoprostol in the same dose schedule. All the cases were closely monitored for the onset of contraction, cervical dilatation before each insertion of misoprostol, bleeding and any side effects.

Induction to abortion interval since the first insertion of misoprostol was noted down. The method is considered failed if the abortion fails to occur even after 6 doses or incomplete abortion and retention of placenta occurs, in case of failure other method of induction tried. RH antibody was given to all Rh-ve mothers. The data were analysed.

OBSERVATION: Among 100 cases distributed as 50 cases and 50 control group majority of patients were between 23-27 year. Mean gravidity of the cases was 2.5 and control 3 and parity in cases -1, controls-2. The mean gestational age was 20 week and 20.5 week among cases and control respectively.

68% of cases aborted within 12 hours of induction in comparison to 44% who aborted within 12 hours among controls. 88% of cases aborted within 24 hours and 80% of controls aborted in 24 hour.

Success rate was 100% in both groups. Mean dose of misoprostol required was around 2.53 = 900-1000 microgram in cases and 3.44 = 1400 microgm in controls.

Side effects like nausea and vomiting noted in 8% (4) and 12% (6), diarrhoea in 12% (6), 20% (10) among study and control group respectively. Two patients with multiple pregnancy (1 twins/1 triplet), had retained bits of placenta and membrances and PPH, check curettage was done among controls.

DISCUSSION: Misoprostol has proven its efficacy as an abortifacient for both I/II trimester termination of pregnancy.[(2)] It is being used through different routes in different regimes eg. oral, sublingual, vaginal etc. Induction to abortion interval varies between 12-33 hour.

Combination of mifepristone with misoprostol is well accepted regimen for 1st trimester abortion. Priming the uterus with mifepristone makes it more sensitive to prostaglandins. It binds with the progesterone receptors and antagonizes the progesterone action. It enhances the prostaglandins efficacy as abortifacient.

Induction to abortion interval and dose of misoprostol required was significantly shorter in study group, compared to controls.

CONCLUSION: 2nd trimester termination of pregnancy using combination of mifepristone and misoprostol is a safe, cost effective method with high success rate. Pre-treatment with mifepristone adds to the effectiveness of the misoprostol as an abortifacient.

Age	Cases	controls
18-22	20	14
23-27	22	10
28-32	8	10
30-35	0	2
	n=50	n=50

Age distribution

	CASES	CONTROLS
Primi	18	26
G2	20	12
G3	10	8
G4	2	2
G5	0	2
	n=50	n=50

Obstetric score

Hours	CASES	CONTROLS
0-6	12	10
7-12	22	12
13-18	6	14
19-24	4	4
>24	6	10
	n=50	n=50

Indiction to Abortion (I-A) interval

	CASES	CONTROLS
Min	1	6
Maximum	5	6
Mean	2.53	3.44

Dose of misoprostol

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