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Research Paper

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KEYWORDS :

Randomized trial to compare combination of Mifepristone plus Misoprostol versus Misoprostol alone in second trimester MTP.

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INTRODUCTION

The second trimester termination of pregnancy is increasing because of increased determination of the sex linked genetic, metabolic disorders. Various surgical and medical methods have been tried for the second trimester MTP with varying success and induction abortion interval.Misoprostol a newer synthetic prostaglandin E1 has proven its efficacy as an abortifacient for second trimester MTP since 1987.Mifepristone (RU 486, a substitute 19-norethisterone derivative) by blocking the progesterone receptors causes estrogen dominance and results in intrauterine fetal death. At the same time it enhances the stimulatory effect of misoprostol on uterine muscle, resulting in increased amplitude and frequency of uterine contractions.Mifepristone can shorten the induction to abortion interval and reduce the amount of prostaglandins required.So mifepristone is widely used nowadays with combination of misoprostol for second trimester MTP.

Therefore we conducted the efficacy of simultaneous use of Mifepristone-misoprostol combination to misoprostol alone for second trimester medical termination of pregnancy.

Aims &Objectives :

To determine clinical advantage of pretreatment with mifepristone in 2nd Trimester misoprostol induced abortion.

To study the induction abortion interval in mifepristone – misoprostol combination.

MATERIALS AND METHODS:

The study was conducted on selected 200 subjects came for second trimester termination of pregnancy from October 2010 to October 2012.A detailed history and general and systemic examination were done in all subjects. Routine hematological investigations were done in all subjects.Written informed consent was taken and confidentiality was maintained.Gestational age was estimated by LMP, clinical examination and confirmed by USG scan.All the subjects were randomly divided in two groups of 100 each.Study group received 200mg of Mifepristone orally followed by 600µg of misoprostol vaginally immediately and thereafter 600µg every 6 hr until the abortion occurred or up to a maximum of 4 doses.Control group received 600µg misoprostol vaginally only in the same dose schedule.The subjects were closely monitored for side effects if any, the onset of contraction, bleedingand cervical dilatation each time before insertion of each misoprostol.

Induction abortion interval, the time period between insertion of first intravaginally misoprostol tablet to expulsion of products of conception, was noted down.The process was considered **failed** if abortion failed to occur in 30hr of the injection of the first tablet of misoprostol or >4 misoprostol instillations were required.The process was considered **incomplete** if part or whole of placenta were retained which was completed by oxytocin administration and check curettage.In case of failure another method medical or surgical was tried. The data were analyzed.

Observations and discussion:

Table:1Epidemiological factor

Epidemiological factor	Study group	Control group
Mean age (yrs)	25.87	26.45
Mean gestational age (wks)	16.26	16.22

Table:2-Comparison of induction abortion interval between two groups.

Induction abortion interval (hrs)	Study group (n=100)	Control group (n=100)
<=6	4	1
6-12.	50	7
13-18	36	38
19-24	5	28
25-30	1	16
31-36	1	5
37-48	2	2
>48	1	3

54% subjects of study group were aborted within 12 hours while only 8% aborted in control group in 12 hrs. 86% subjects of study group were aborted within 18 hours while 46% subjects were aborted within 18 hrs.So mean IAI in study group was significantly shorter i.e. **13.08 hours** to that of control group **20.61 hours (p<0.001)**

Table:3- Comparison of final outcome between two groups.

Final outcome	Study group	Control group
Successful	96	90
Unsuccessful	4	10

Table:4- Comparison of Completeness of abortion between two groups.

Completeness of abortion in successful cases	Study group (n=96)	Control group (n=90)
Complete	63 (65.62%)	18 (20%)
Incomplete	33 (34.37%)	72 (80%)

Success rate was 96% in study age group while 90% in control group.65.62% of subjects in study group had complete abortion without need for any surgical intervention while 20 % of subject in control group had complete abortion. 34.37% of subjects in study group and 80% in control group had incomplete abortion which were completed with help of oxytocin infusion with check curettage (p<0.001)

Conclusion:

Second trimester termination of the pregnancy using combination of mifepristone and misoprostol is a safe, noninvasive, highly cost effective method with a high success rate with short induction abortion interval**.**