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COMPARATIVE STUDY OF MIFEPRISTONE AND VAGINAL MISOPROSTOL WITH VAGINAL MISOPROSTOL ALONE IN 1ST AND 2ND TRIMESTER MEDICAL TERMINATION OF PREGNANCY

Obstetrics & Gynaecology

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ABSTRACT

OBJECTIVE: This study is to evaluate the (IAI) induction abortion interval, also to evaluate the failure rate, side effects and complications. **Methods:** This is Randomized controlled study(Experimental),study conduted for 2yrs at asram medical college eluru , includes 50 women in that 25 women receiving Mifepristone and misoprostol,25 Receiving misoprostol alone. Objective is to evaluate the (IAI) induction abortion interval the failure rate, side effects and complications. **Results:** Mean IAI in mifepristone and misoprostol group is 12.14 hours and that of misoprostol group is 19.82 hours. From the statistic point of view the p-value was less than 0.05. **Conclusion:** Today, it is proven, safe, and very effective way for medically terminating a pregnancy in 1STand 2ndtrimester when misoprostol and mifepristone are combined.

KEYWORDS

INTRODUCTION

Abortion is Classified into the Following Two Types.

1. Spontaneous
2. Induced

Reasons For The Delay In Getting Abortion

1. Insufficient knowledge .
2. A psychological denial/rejection of the pregnancy.
3. Uncertainity over whether abortion is desirable.
4. Late discovery of medical conditions which prevent a pregnancy from continuing.
5. The late identification of prenatal deformity.
6. Insufficient funds to reach the medical facilities.

Given the significant number of unsafe abortions, the MTP (Amendment)Bill was passed by theRajya Sabha in 2021.

MTP Bill 2021 Include:

- Allows upto 20weeks by 1 medical professional.
- For 20 and 24 wks GA ,2 doctors are must.Granted for victims of rape or incest,with disabilities.
- In foetal abnormalities, a state-level Medical Board will determine whether or not an abortion beyond 24 weeks can be performed.
- Abortions are only performed by medical professionals who specialize in OBGY.
- It states that woman's identity and other personal information "shall not be revealed".
- To terminate a pregnancy result from rape and whose Gest age more than 24 weeks is to file a writ petition.

METHODOLOGY:

Study Design: Randomized controlled study (Experimental)
Study Population: Pregnant women of 1St and 2nd trimester who are attending department of OBSTETRICS & GYNAECOLOGY Department, ASRAM medical college, Eluru, Andhrapradesh.
Study Period September 2022-MAY 2024 (Twoyears)
Sample Size 50cases

Study Group Include:

- Pregnant women who need MTP in 1st and 2nd trimester in family planning OP
- Pregnant women having anomalous baby in 1st and 2nd trimester
- Pregnant women having any medical indications for 1st and 2nd trimester termination.

Informed Consent

Informed and written consent from all the patients were taken and if the patient was a minor, consent from her parents were taken.

GroupA: T.mifepristone 200mg is orally given at first . After 48hours, in 1st trimester 800µg of miso is kept in the posterior fornix , Up to 5 doses , repeated every 3hrs until expulsion . In 2nd trimester 400mcg of vaginal miso every 3hours until expulsion
GroupB: Under Strict aseptic precautions, In 1st trimester 800mcg miso is kept in posterior fornix, repeated at every 3hrs until expulsion. In 2nd trimester 400mcg miso vaginally every 3 hrs until expulsion.

The following parameters are noted in each groups

- The timing of pill application
- The number of misoprostol doses
- Temp, Bp, and pulse monitoring
- Assessing the progression.

Informed Consent

Informed and written consent from all the patients were taken and if the patient was a minor, consent from her parents were taken.

Group A: T.mifepristone 200mg is orally given at first . After 48hours, in 1st trimester 800µg of misoprostol is kept in the posterior fornix under sterile aseptic precaution , Up to five dosages can be given, with the dose being repeated every 3hours until expulsion . In 2nd trimester 400mcg of vaginal misoprostol every 3hours until expulsion
Group B: Under Strict aseptic precautions, In 1st trimester 800mcg misoprostol is kept in posterior fornix,the dose was repeated at every 3hours until expulsion. In 2nd trimester 400mcg misoprostol vaginally every 3 hours until expulsion.

Complications: Abortion failure or incompleteness necessitating any surgical procedures

Success: If at all the products of conception are expelled within 30 hours of giving misoprostol, the method is deemed successful.

Failure: When the results of conception is not expelled within 30 hours of misoprostol being inserted, the treatment is considered unsuccessful. The unsuccessful cases are comforted and given other methods of MTP treatment

RESULTS

Table -1 Induction–Abortion Intervals in Hours

Induction–Abortion interval	GroupA	Group B
Upto 8hrs	8	5
8.1to16hrs	9	4
16.1to24hrs	6	5
>24hrs	1	8
Failed induction	1	3

The mean IAI in mifepristone and misoprostol group is 12.14hours and that of misoprostol group is 19.82 hours. From the statistic point of view the p-value was less than 0.05

Table-2 Induction Outcome

Type of abortion		GroupA	Group B
Success	Complete	22	21
	Incomplete	2	1
Failure		1	3
Total		25	25

From above data it is evident that success rate is more in group A (96%) with 22 complete and 2 incomplete abortions, whereas for group B , success rate was 88% with 21complete and 1 incomplete abortions and 3 failures.From statistical point of view this was found to be significant as p-value was < 0.05.

Table-3 Retained Products of Conception

Retained products of conception requiring curettage	1	3
Percentage	4%	12%

Retained products of conception requiring curettage is 1/25 (4%) in group A and 3/25(12%) in group B it was found to be statistically significant as p-value is < 0.05 (0.0412).

DISCUSSION

In current study, the misoprostol group had a IAI of 19.82 hours between the start of induction and vaginal delivery, whereas the mifepristone and misoprostol group had a mean interval of 12.14 hours. There is a statistically significant difference here. P is less than 0.05.

In Prasanna LA et al's study group receiving both misoprostol and mifepristone had, Primi-gravidae aborted in about 7.20 h (440 min) and the multi-gravidae in about 4.40 h (280 min); the mean IAI was 6.19 h (371.90 min). Mean induction abortion interval in group receiving misoprostol alone was10.67 hours for primigravidae it was 12.20 h (740 min) while for multigravidae it was 8.10 h (490 min).A 2011 study by Nagaria et al found that the combination of mifepristone and misoprostol produced a shorter IAI than misoprostol alone37.

Pretreatment with mifepristone led to full evacuation of uterus in 15 hours (79.8% vs. 36.9%). A randomized controlled trial (2011) conducted by Ngoc NT et al the mifepristone-misoprostol group had a considerably shorter mean induction-to-abortion period; by 10 hours, nearly 60% of the women has finished evacuation of uterus, compared to less than 20% in the misoprostol-only group.

Compared to patients receiving misoprostol alone, patients receiving misoprostol plus mifepristone group required less oxytocin augmentation; nevertheless, difference was not significant statistically. (p >0.05). In 2008, Gamzell Daniele et al. concluded that oxytocin augmentation was more necessary for the misoprostol alone group than for the mifepristone with misoprostol group.

In our study the success rate was more in group A (96%) with 22 complete and 2 incomplete abortions whereas in group B the success rate was 88% with 21 complete and 1 incomplete abortions and 3 failures. This outcome is similar to the research done in 2013 by Uday patel et al. Their study found that the group getting misoprostol + mifepristone had higher success rate than group taking misoprostol alone.

In Robina Mirza's study, group A's success rate was 92%, whereas group B's success rate was 76%. The combination use of misoprostol and mifepristone yielded greater success. When mifepristone and misoprostol are used simultaneously, Wagaarachchi et al. reported an 84.1% success rate for missed first-trimester abortions. Using a combination of these two medications, Creinin et al. reported a therapeutic success rate of 96.9% for first trimester missed abortions.

CONCLUSION

Today, it is proven, safe, and very effective way for medically terminating a pregnancy in the 2nd trimester when misoprostol and mifepristone are combined. Mifepristone and misoprostol together dramatically shorten the time needed for an induced abortion. Misoprostol dosages are lowered when mifepristone is taken after misoprostol, which lowers the chances of problems and side effects. Misoprostol alone has been used and has been demonstrated to be useful in situations where mifepristone is not readily available or economical; however, a greater dosage is required and also efficacy is lower than for the combined regimen. Thus, combination regimens should be adopted wherever possible. Future research should concentrate on enhancing pain management, treating the women who were failed to get a medical abortion within 24 hours, and ensuring that medical abortion protocols safe for women, who have had a previous cesarean section or having uterine scarring.

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