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MISOPROSTOL VERSUS SUCTION EVACUATION IN MANAGEMENT OF PATIENTS WITH INCOMPLETE ABORTION: A RANDOMIZED CONTROLLED TRIAL.

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ABSTRACT

Background: Gold standard technique used for the treatment of incomplete abortion has been suction and evacuation but oral misoprostol has also been found to be equally effective as suction evacuation with reducing the risk of surgical complications. We did RCT to compared the effaccy and complication of misoprostol versus suction evacuation in patients with incomplete abortion. **Method:** During the study period of 20 months 98 patients were studied and divided into 2 equal groups by randomization. Group A having 49 patients were treated by medical and other group by surgical method. **Result:** We found that 87.8% success in study group with oral misoprostol. There were more complication in study group as compared to control. **Conclusion:** This study concludes that oral misoprostol can be used as an option for management of incomplete abortion. Medical method can avoid surgery and surgery related risk and cost of management can be reduced in 87.8% cases.

KEYWORDS :

INTRODUCTION-

In spontaneous or induced abortion when the entire product of conception is not expelled, instead a part of it is left inside the uterine cavity, it is called incomplete abortion[1].

Traditionally the gold standard technique used for the treatment of incomplete abortion has been suction and evacuation[2]. Suction evacuation is a surgical procedure which is associated with anesthesia associated risk and surgery associated risk like, cervical trauma, infection, hemorrhage and impaired fertility while Misoprostol has been used as a medical abortion technique for MTP purposes for the past few years[3]. Misoprostol is a PG1 analogue, which is a cheap, stable drug with long shelf life[4]. Numerous studies have demonstrated that the therapy of incomplete abortion using simply misoprostol is a safe, efficient, and complementary technique to suction and evacuation.

OBJECTIVE-

To compare efficacy and complications of Misoprostol versus suction evacuation for managing patient with incomplete abortion.

METHODS-

After receiving approval from the institutional ethics committee this study was conducted and designed as a randomized control trial done at department of obstetrics and gynaecology of tertiary care centre between the period of Jan 2021 to Dec 2022 (24 months). The patient data used in this study was selected after informed consent using following criteria:

Inclusion Criteria:

1) Gestation age less than 12 weeks
2) Ultrasonography/Clinical diagnosis of retained products of conception.
3) Willing to come for follow up after 7 days.
4) Willing to undergo surgical evacuation if heavy bleeding seen during medical management/medical management fails.

Exclusion Criteria:

1) Severe Anemia
2) Bleeding Disorder
3) Infection
4) Profuse bleeding
5) Contraindications to Prostaglandins
6) Ectopic pregnancy
7) Hypersensitivity to prostaglandin
8) Patient with more than moderate vaginal bleeding.
9) Significant systemic medical or surgical problem in the past or present.

After considering inclusion, exclusion criteria and explaining the procedure a total 98 patients met these criteria. Patients were divided into 2 group by convenient sampling technique and by block randomization using computer generated software RALLOC by minita Corporation 18 **Group A** was a study group in which 600 microgram misoprostol was given orally and **Group B** was a control group in which suction and evacuation was done for incomplete abortion.

In **group A** after close monitoring of vitals and bleeding patient allowed to go home after 4 hours and she was asked to observe for bleeding and/or passage of product of conception and was asked for followup after 7 days where patient was assessed for completion of procedure. If found incomplete, presence of ongoing excessive bleeding, abdominal pain, continues fever then suction and evacuation was done. Incomplete evacuation was defined as when only some of the product of conception have been expelled based on 1) Partial passage of product of conception 2) Cervix open or close 3) Endometrial thickness of >15mm on USG. Procedure was called to be complete when the uterine cavity is empty and all product of conception have passed and USG suggestive of endometrial thickness of <15mm with closed cervical os.

In **group B** in which suction and evacuation was done for incomplete abortion patients was asked to follow up after 7 days for infection, excessive bleeding, abdominal pain, fever or any other issue.

Haemoglobin estimation was at the end of 7 days in both the groups. All the findings were recorded in predesigned case record form.

RESULTS-

Using the data gathered showed 43 out of 49 had successful

termination of pregnancy by medical method where as 6 patients had failed termination and required further surgical evacuation. 4 out of these 6 patients were having gestational age 6 to 10 weeks and only 2 patients were >10 weeks of gestation. All 49 in control group had complete evacuation and did not require further management. Significant statistical difference was seen between these two groups according to success of method of termination of pregnancy. (p=0.011).

Table 1: Distribution of women according to success of method of termination of pregnancy

METHOD USED	COMPLETE	INCOMPLETE	PVALUE
Medical	43	06	0.011
Surgical	49	00	
Total	49	49	

Table 2:Distribution of women according to Induction abortion interval

Hours	Study group
4 to <8 hours	4
8 to <16 hours	18
16 to <24 hours	04
24 to <32 hours	08
32 to <40 hours	04
40to<48 hours	05
Total	43

Study showed that 51% (22/43) had completed abortion process before 16 hours while only 9 patients required >32 hours for completion while 12 patients had completed abortion process between 16 to 32 hours by medical method in study group.

Table 3 : Distribution of women according to complications of method used for termination of incomplete abortion

COMPLICATIONS	STUDY GROUP	CONTROL GROUP
Abdominal pain	15	02
Fever	03	00
Vomiting	03	01
Diarrhea	11	01
Bleeding	07	01

Study also shows in comparison to control group there were greater instances of abdominal pain, gastrointestinal system and bleeding in the study group.

3(49) in control group and only 2(49) in study group had shown reduction in hemoglobin >1 gm/dl but nobody needed blood transfusion in either group.

Other parameters like age, education, religion, residency, family type, socioeconomic status and parity shows no significant difference between case and control group.

DISCUSSION

First trimester incomplete abortion is a common pregnancy problem that affects 10-15% of pregnant women.[5]

Traditionally, the gold standard method for the management of incomplete abortion has been uterine evacuation by aspiration curettage. In recent years, medical treatment with misoprostol for the management of incomplete abortion has been shown to be easy, inexpensive and with less complications [6].

It is well tolerated by patient who wishes to avoid surgical management. some studies claim a high success rate varying from 80%- 90%[7-13] with Misoprostol in incomplete abortion Our study also shows the similar result with success rate of around 88% in study group.

Majority of the studies claimed higher success rate with suction and evacuation [2,3] although suction and evacuation has high success rate, it is associated with many complications like infection, cervical trauma, anaesthesia related risk, uterine perforation.

It was noted that the study group had a higher prevalence of fever than the Control group. According to a study done by Shocket et al[14] (2013), abdominal pain was seen to be more frequently in the study group than the control group, with 54.8% in the study group and 24.4% in the control group with 51% cases in the research group, similar figures were noted by Coughlin et al.[15] (2009). Bleeding and GI symptoms were found to be higher in study group than control group. Studies from Pang et al[16] (2001) and Bishal et al[17] (2019) shows similar result.

Most of the studies including our study shows that majority of the women aborted before 24 hrs, with the largest group in the present study being 18 women between 8-16 hours leaving us with a mean induction abortion interval of 20.9 ±10.13 SD.

CONCLUSION

This study concludes that oral misoprostol can be used as an option for management of incomplete abortion. Medical method can avoid surgery and surgery related risk and cost of management can be reduced in 87.8% cases.

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