

Success Rate and Acceptability of Medical Abortion at Different Gestational Ages: A Prospective Study

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Abstract

Objective: To correlate outcome and acceptability of medical abortion with gestational age.

Method: A one-year prospective trial was done at SGRR-IMHS, Dehradun. A total of 110 patients of gestational age < 63 days (group I-POG < 49 days- 60 patients and group II-POG : 50 to 63 days-50 patients) meeting the selection criteria were given mifepristone 200 mg in single oral dose with misoprostol 400 mcg vaginally 48 hours later. The rate of completion of abortion and acceptability was compared between the two groups. The results were evaluated using Chi-square test.

Results: Mean complete abortion rate in group I was 96.66% and that in group II was 85.75% (P value > 0.05; significant). Acceptability of procedure was 98.33% in group I and 86% in group II and this difference was found to be statistically highly significant (P value > 0.02).

Conclusion: Medical abortion is an effective and safe method of termination of early intrauterine pregnancy. However, there was significant difference in success rate and acceptability before 49 days gestation as compared to that between 49 and 63 days.

Keywords: Medical abortion, Mifepristone-misoprostol.

INTRODUCTION

An estimated 30 to 40 million illegal abortions are carried out each year worldwide.¹ Although legal in India, abortion is frequently performed under unsafe or undesirable conditions. Because medical abortion requires a less extensive infrastructure than surgical abortion, it offers great potential for improving abortion access and safety especially in developing countries. Mifepristone was developed during the early 1980s by researchers at the French pharmaceutical company Roussel Uclaf. France became the first country to license the mifepristone/prostaglandin analog regimen for early abortion in 1988.² In September 2000, the US FDA approved a medical abortion regime upto 49 days gestation consisting of mifepristone 600 mg followed 48 hours later by 400 mcg oral misoprostol.³ A study was conducted in India for the first time between 1995 and 1998, and established that medical abortion is effective and acceptable in urban as well as rural setting.⁴

The purpose of this study is to compare the efficacy and acceptability of medical abortion with mifepristone and misoprostol in first trimester at different gestational ages.

MATERIALS AND METHODS

The present study was carried out over a period of one year from Sept 2007 to Aug 2008 at SGRR-IMHS, Dehradun. The protocol was approved by the institutional ethics committee. A total of 110 patients of gestational age < 63 days were enrolled fulfilling the selection criteria.

Inclusion criteria: Request for abortion by medical method with informed consent, intrauterine pregnancy not exceeding 63 days of gestation, willingness to comply with visit schedule and to have a surgical abortion if indicated, Hb 10 gm% or more.

Exclusion criteria: Pregnancy more than 63 days, confirmed or suspected ectopic pregnancy or undiagnosed adnexal mass, pregnancy with intrauterine device in place, hypersensitivity

to mifepristone, misoprostol or other prostaglandins; hemorrhagic disorder or concurrent anticoagulation or corticosteroid therapy, inherited porphyrias, hepatic or renal insufficiency.

Patients selected were randomized into two groups:

- Group I (POG < 49 days)—60 patients
- Group II (POG 50-63 days)—50 patients.

All women were given mifepristone 200 mg in single oral dose followed by misoprostol 400 mcg vaginally 48 hours later. They were asked to return on day 14 for confirmation of completion of abortion. Clinical examination was done followed by sonography (if required) to confirm the same. On this visit, all side effects or complications reported by the subject were recorded.

1. Outcome was determined by calculating the rate of completion of abortion. Failure of abortion process was determined by the need for dilatation and curettage. Incomplete abortion and ongoing pregnancy was deemed as failure. The success rate of complete abortion was calculated for GA < 49 days and for that between 50 and 63 days.
2. Acceptability of the procedure was determined from the experience of women as regards five aspects, i.e. discomfort, anxiety, amount of bleeding, length of bleeding, and overall satisfaction. Each of the five aspects was rated by the subject on a scale of 1 to 3. The patients were asked to rate discomfort, anxiety, and amount of bleeding as none/slight-1, moderate-2 or high-3. Length of bleeding was assessed as normal (< 7 days)-1, prolonged (8-14 days)-2, markedly prolonged (> 14 days)-3. The overall satisfaction with the procedure was determined by the degree of satisfaction as very satisfied-1, satisfied-2, not satisfied-3.

The overall acceptability of the procedure was scored by adding the points of each of the five parameters. With a score upto 5, the procedure was rated as highly acceptable; with a score between 6 and 10, it was rated as acceptable and with a score of 11 to 15, it was rated as not acceptable.

Statistical evaluation was done using Chi-square test. The two groups were compared with Chi-square test and the results given with 95% confidence interval for the difference between two groups and degree of freedom one. P-values, less than 0.05, were considered to indicate statistical significance.

RESULTS

A total of 110 women were enrolled in the study and divided into two study groups out of which 60 women belonged to group I and 50 belonged to group II. In both groups, most women (group I—87%, group II—92%) were between 20 and 29 years of age. Maximum patients were of parity 2 in our study (group I—50%, group II—60%). Incidence of side effects like nausea, vomiting, and abdominal cramps were similar in both groups (group I—66%, group II—70%). No

major complication was reported in the present study. In both study groups, bleeding started within 24 hours of taking misoprostol in 96.36 % of patients. As seen in Tables 1 and 2, the duration and amount of bleeding increased with the increase in gestational age. Mean duration of blood loss in group I was 7.45 ± 0.7487 days while in group II, it was 9.90 ± 0.2275 days (P-value ≥ 0.5, not significant). As seen in Table 3, mean complete abortion rate in group I (< 49 days of gestation) was 96.66% and that in group II (50-63 days of gestation) was 85.75% (X² = 3.973, df = 1, P value > 0.05; significant). Tables 4 and 5 show that acceptability of the procedure was 98.33% in group I and 86% in group II and this difference was found to be statistically highly significant (X² = 6.151, df = 1, P-value > 0.02; highly significant). Overall medical abortion was accepted by majority, i.e., 92.73% of patients and was not acceptable in only 7.27% of patients.

DISCUSSION

The success rate of medical abortion in the present study declined with the increase in gestational age. In our study when GA was < 49 days, complete abortion rate was 96.66%. When GA increased to 50 to 56 days, it declined to 88.89% and when it increased to 57 to 63 days, it further declined to 82.61%. Similar observation on the relationship of efficacy of medical abortion with GA was reported in various studies: Ashok et al⁵ (< 49 days – 98.5% and 50-63 days – 96.7%), WHO task force 2000⁶ (< 49 days – 92.2%, 50-56 days – 89.7% and 57-63 days – 86.7%), Bartley et al⁷ (< 49 days – 97.4% and 50-63 days

Table 1: Distribution of patients according to blood loss (days) in group I and II

Gestational age (days)	No. of cases	Blood loss (days)
36-40	12	5-6
41-45	18	6-8
46-49	30	8-9
50-56	27	8-10
57-63	23	10-12

Table 2: Distribution of patients according to mean blood loss in group I and II

Group	No. of cases	Mean blood loss (days)
I	60	7.45 ± 0.7487
II	50	9.90 ± 0.2275

Table 3: Distribution of patients according to outcome in group I and II

Gestation age (days)	No. of cases	No. of incomplete abortions	Complete abortion rate	Incomplete abortion rate
≤ 49	60	2	96.66	3.33
50-56	27	3	88.89	11.11
57-63	23	4	82.61	17.39

Table 4: Parameters of acceptability of the procedure

	Group I < 7 weeks		Group II 7-9 weeks	
	No. of cases	% of cases	No. of cases	% of cases
No discomfort	57/60	95	47/50	94
Moderate discomfort	3/60	5	2/50	4
High discomfort	0/60	0	1/50	2
Slight anxiety	58/60	96.67	46	92
Moderate anxiety	1/60	1.6	3	6
High anxiety	1/60	1.6	1	2
Slight bleeding	45/60	75	36/50	72
Moderate bleeding	10/60	16.67	5	10
Heavy bleeding	5/60	8.33	10	20
BI < 7 days	42/60	70	30/50	60
BI 7-14 days	16/60	26.67	12/50	24
BI > 14 days	2/60	3.33	8/50	16
Very satisfied	50/60	83.33	39/50	78
Satisfied	8/60	13.33	2/50	2
Not satisfied	2/60	3.34	9/50	18

Table 5: Comparison of acceptability in two groups

	Accepted	Not accepted	Total
Group I	59 (98.33%)	1 (1.67%)	60
Group II	43 (86%)	7 (14%)	50
	102 (92.73%)	8 (7.27%)	110

– 95.1%) and Child et al⁸ (< 49 days – 91.2%, 50-56 days – 90.1% and 57-63 days – 88.7%). Thus, it was concluded that the earlier in gestation medical abortion is given, the better is its results. This could be explained by the fact that as period of gestation increases, placenta and embryo get better established in the uterus and, thus stronger and more sustained uterine contractions would be required to dislodge them from their nidus leading to lower efficacy of abortion procedure with higher gestational ages.

Regarding acceptability of medical abortion, we observed in our study that it was acceptable to 92.73% patients and not acceptable to 7.27% of the patients. Of the 7.27% patients to whom it was not acceptable, 0.91% belonged to group I (n = 1) and the majority, i.e. 6.36% belonged to group II (n = 7). This observation correlates with various other studies in the US, Europe, Asia, Latin America, and the Middle East that have demonstrated high rates of acceptability (more than 90%) among patients using the mifepristone and misoprostol regimen.^{9,10}

CONCLUSION

It was concluded from the present study that medical abortion is an effective, safe and acceptable method of termination of early intrauterine pregnancy < 63 days. Duration and amount of blood loss increased with increase in gestational age but was not found to be statistically significant. However, the difference in success rate before 49 days of gestation and that between 49 and 63 days was found to be statistically significant. The difference in acceptability was also found to be highly significant. Therefore, we conclude that medical abortion can be safely administered upto 63 days of gestation but is more successful and acceptable upto 49 days, beyond which when given, the patient should be counseled about its increased duration of bleeding and lower efficacy.

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