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Medical Abortion in Early Pregnancy By oral Mifepristone And oral Misoprostol

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Abstract: *This study was conducted to observe the efficacy of medical abortion using mifepristone 200 mg and misoprostol 800 mg by oral route in pregnant women with amenorrhoea of up to 63 days. Methods: 60 women were divided into two groups. Group I comprised of 30 women with 49 days of pregnancy and Group II comprised of another 30 women with 63 days of pregnancy. On day one, patient was advised to take mifepristone 200 mg orally. After 48 hours on day three patients was advised to take 2 tablets of misoprostol each containing 200 microgram of misoprostol. Result: Complete abortion was observed in 93% of women in group I and 83% in group II. Commonest complain was nausea and vomiting which was mild in nature in both the groups. Conclusion: Use of mifepristone with oral misoprostol for medical abortion can be extended to those beyond 49 days and up to 63 days with proper counselling.*
Keywords: *medical abortion, early pregnancy, misoprostol.*

I. Introduction

Combination of mifepristone and misoprostol is used for medical abortion in early pregnancy. This combination is a safe, effective and acceptable non surgical alternative for termination of pregnancy. Mifepristone is used by oral route. It is used in various doses starting from 200 mg to 600 mg. As per WHO task force recommendation a dose of 600 milligram of mifepristone or 200 milligram of mifepristone has similar result [1]. Misoprostol is given by various routes. Currently the use of this combination is mostly done for pregnancies of up to seven weeks or forty nine days counting from the last day of the menstrual period. This study was conducted to observe the efficacy of medical abortion in women with amenorrhoea of up to 63 days using mifepristone 200 milligram by oral route and misoprostol 800 microgram by oral route.

II. Materials And Methods

This study was conducted in Regional Institute of Medical Sciences, Imphal from first April 2016 to thirtieth September 2016. To be eligible for study apart from willingness to participate in the study a woman should have an intrauterine pregnancy of 63 days or less with no medical or surgical problems. Exclusion criteria were drug allergy, suspected ectopic pregnancy, bleeding disorder and major medical illness. Women were informed of the procedure and its complication. Informed consent were taken from those who understood and agreed to participate in the study. Women were divided into two groups. Group I comprised of 30 women with 49 days of pregnancy and Group II comprised of another 30 women with pregnancy beyond 49 days and up to 63 days of pregnancy. Period of gestation were calculated from the last menstrual period. Thorough history and general examination was done. Ultrasonography was done for calculating period of gestation when the women was not sure of her last menstrual period, has irregular menstrual cycles, to exclude ectopic pregnancies and to confirm intrauterine pregnancy in doubtful cases. Proper counselling was done of the common side effects and amount of bleeding. On day one patient was advised to take mifepristone 200 milligram orally. After 48 hours on day three patients was advised to take 2 tablets of misoprostol each containing 200 microgram of misoprostol in the morning. After a gap of two hours in the morning she is advised to take another 2 tablet of misoprostol (each containing 200 microgram). If the patient vomits after taking medicine she was advised to repeat the medicine after taking anti emetics.

If the patient expelled the products of conception with mifepristone alone, she is advised to complete the doses of misoprostol. She is advised to stay at home as the exact time of pregnancy expulsion is not clear. She should avoid going out of station keeping in mind the possibility of heavy bleeding or severe pain which might necessitate Hospitalisation. If the women has heavy bleeding or is very apprehensive she is advised to come to the Hospital. She is advised for check up on 10^{th} Day or after seven Days of taking misoprostol. When she comes for check up thorough history taking and examination was done to ensure complete abortion without any complications. If required, Ultrasonography was done for confirmation. If the woman has incomplete abortion curettage was done.

III. Observation

Altogether 60 patients were included in the study. 30 patients with gestational age of 7 weeks or 49 days were included in Group I and another 30 patients with gestational age of 9 weeks or 63 days were included in Group II.

Table 1 showing patient characteristics

	Group I,(49 days) Number = 30 (%)	GroupII,(63 days) Number = 30 (%)
Mean age	28.6 years	28.2 years
Age range	16-41 years	17-40 years
Parity		
Primigravidae	6 (20%)	5 (17%)
Multigravidae	24(80%)	25(83%)

Both the groups had comparable age and parity. Mean gestational age was 28.6 years in group I and 28.2 years in group II. Age range was 16 to 41 years in group I and 17 to 40 years in group II. Most of the patients in both the groups were multigravidas.

Table 2 showing completeness of abortion

	Group I,(49 days) Number = 30 (%)	GroupII,(63 days) Number = 30(%)
Complete abortion	28 (93%)	25 (83%)
Incomplete abortion	2 (7%)	5 (17%)
Ongoing pregnancy (failure)	nil	nil

Complete abortion was observed in 93% of women in group I while it as 83% in group II. Incomplete abortion rate as expected was more in group II. They underwent curettage .One patient required hospitalization. There was a women who aborted completely with mifepristone only in group I.

Table 3 showing complications

Effects	Group I,(49 days) Number = 30(%)	GroupII,(63 days) Number = 30(%)
Severe pain	1(3%)	2(7%)
Nausea/vomiting	8(27%)	10(33%)
Diarrhoea	1(3%)	0

Commonest complain was nausea and vomiting which was mild in nature in both the groups but it was slightly more in group II. Severe pain abdomen requiring administration of analgesics was seen in only one patient in group I and in two patients in group II. Blood transfusion was not required in any of the patients.

IV. Discussion

Non surgical methods of abortion is widely accepted by the general public. The main reason for women choosing medical methods of termination of pregnancy are fear of surgery, fear of anaesthesia, perceived privacy and similarity to a natural process [2]. Of the various methods available for medical abortion a combination of mifepristone and misoprostol is mostly used in current practice. Mifepristone or RU-486 has antiprogestin action and misoprostol is a synthetic PGE1 analogue which is stable at room temperature. Recently there are reports of abuse of this combination drug for medical termination of pregnancy from different parts of the country. Absorbtion of misoprostone from gastro-intestinal tract and vaginal mucosa is quite good. However, bioavailability of vaginally administered misoprostol is much higher than the orally administered misoprostol [3]. Although misoprostol is more effective when given vaginally most women prefer the oral route and it can also be self administered safely at home [4]. In this study both the groups has comparable baseline characteristics in terms of age and parity as seen in table I as with other workers [4]. Complete abortion was observed in 93% in group I and 83% in group II. Abortion rate of up to 86.6% in pregnancies up to 49 days and 84.6% in pregnancies up to 63 days are reported by Shetty et al [4]. A higher success rate of up to 98% in pregnancies up to 49 days and 97% in pregnancies up to 63 days are reported by other workers [5]. Incomplete abortion as expected was higher in those with gestation of up to 63 days. Shetty et al [4] also reported higher rate of incomplete abortion in higher gestational ages (11.5% vs. 15.4%). True failure which is considered as the presence of cardiac activity following mifepristone and misoprostone administration was not observed in this study. True failure rate occurs in less than 1% of women. Overall abortion rate in this study was approximately 86% which was comparable to that reported by Shetty et al [4] (86%) and El Rafaey et al [6] (87%). Of the side effects pain,vomiting and diarrhoea were commonly observed, shetty et al [4] also observed similar adverse

effects following oral misoprostol. In most patients gastrointestinal side effects were mild in nature and administration of antiemetics was required in some patients. In this study no patient required blood transfusion. Proper counselling is required so that women are well prepared for the amount of bleeding following a medical termination of pregnancy. Counselling improves their experience and reduces anxiety [7].

V. Conclusion

Non surgical method of termination of pregnancy using combination of mifepristone 200 milligram and misoprostol 400 microgram is a popular method for medical abortion in early pregnancies in current practice. Use of mifepristone with oral misoprostol can be extended to those beyond 49 days and up to 63 days with proper counselling.

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