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Original Research Article

Incomplete abortion following medical method of abortion: study at a tertiary care teaching hospital at Bihar

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ABSTRACT

Background: Medical method of abortion (MMA) is a safe and effective method of abortion. Combination of mifepristone and misoprostol is most widely used. However, this is being randomly used by women without proper prescription which can lead to life threatening complications.

Methods: This is an observational study done at Patna Medical College and Hospital, Patna, a tertiary care teaching hospital in Bihar, in a period of one year from March 2019 to February 2020. This is an attempt to study incomplete abortion after medical method of abortion and to observe the method of taking it among patients, with prescriptions or without it. Hundred women with incomplete abortion following MMA in 1st trimester of pregnancy were included. Patients' age, parity, gestational age, locality, complaints, complications and treatment were noted. An information regarding method of administration and prescription noted.

Results: 96% women used combined mifepristone plus misoprostol drug. Only 12% took the medicine on prescription of MBBS doctor, rest were all either self-administered or advised by quacks. Blood transfusion was required in 60% patients.

Conclusions: Medical method of abortion is safe and effective but complications can occur if not used in accordance with guidelines. Women should be taught about and motivated for contraception. Adequate training to health care providers about comprehensive abortion care should be given.

Keywords: MMA, MTP, Incomplete abortion, Sepsis

INTRODUCTION

The World Health Organization (WHO) recommends three methods of safe abortion, depending on how far along the pregnancy is. These are: medical abortion (MA), manual vacuum aspiration (MVA), and dilatation and evacuation (D and E).

An estimated 21.6 million unsafe abortions took place in 2008 worldwide, almost all in developing countries. National estimates of abortion in India released on December 11, 2017, finds 15.6 million abortions occur annually. This translated to an abortion rate of 47 /1000 n

women aged 15-49. This is similar to the abortion rate in neighbouring south Asian countries.

Medical abortion consists of using drug to terminate a pregnancy. It is an important alternative to surgical method. A regimen composed of mifepristone plus misoprostol has been the one most widely used and recommended by WHO.¹ Misoprostol pills alone can also be used. Initial dose of mifepristone 200 mg is given followed by misoprostol 400 µg orally or vaginally 36-48 hour later upto 7 weeks of gestation. This is done on home basis and reduces no of clinic visits required.²

The combination of mifepristone + misoprostol in the right doses causes a complete abortion in 96-98% of cases. Mifepristone is only available in about 60 countries. However, misoprostol is available in almost all countries because it has other medical uses in addition to abortion. Misoprostol alone is not as effective as the combination of mifepristone + misoprostol.

In a study done at 6 states of India, in all study states, incomplete abortion resulting from MMA is the most common complication, estimated to affect between 33% (in Tamil Nadu) and 65% (in Assam) of women obtaining care for complications. Prolonged or abnormal bleeding is the second most common complication type in four of the six states.³

METHODS

This is an observational prospective study done at emergency room of Department of Obstetrics and Gynaecology, PMCH, Patna, in a duration of one year from March 2019 to February 2020 and 100 women with Incomplete abortion following medical method of abortion in first trimester of pregnancy were enrolled.

Inclusion criteria

Women with bleeding per vagina with intrauterine pregnancy less than 12 weeks uterine size were included.

Exclusion criteria

Patients diagnosed with ectopic pregnancy or uterine size more than 12 weeks were excluded.

General, obstetric and menstrual history was taken. They were asked about confirmation of pregnancy, onset and duration of bleeding and any other associated complaints such as pain, fever amount of bleeding, interval between onset and hospital visit and treatment received before admission. Women were asked about source of their medication, were they examined before administration or was any investigation, for example Ultrasound sonography (USG) done. Information regarding their schedule of intake and follow up visits was recorded. All the patients received standard individualized treatment according to hospital protocol.

Ethical approval taken and statistical analysis done using excel version 2019.

RESULTS

This study was done in duration of one year and 100 patients fulfilling the inclusion criteria were enrolled. Women who had taken MMA but were at more than 12 weeks of gestation were excluded. One patient who had cornual pregnancy but had taken MMA was also excluded.

General characteristics of patients such as age, parity, gestational age is shown in table 1. Patients in 18-24 years age group were 22, while most of them 56 were in 24-30 years age group. Mean age of the patients is 25 years with Standard deviation (STDEV) 22.53. Use of medicine was highest in para 3 group (48%) and was lower in para 1 (8%) and para 5(4% patients). Most patients took medicine in 7-9 week of gestation (58%), while 36% patients took it in 9-12 week. Only 6% women took the medicine before 7 weeks. This means very few were prescribed MMA according to standard protocol. (Table 1)

Information gathered from the patients about medication is shown in table 2 which were based on MMA protocol and comprehensive abortion care guidelines. In my study 96 patients took combined regime and 6 patients took misoprostol only. Route of intake was mostly oral (90%). Only 12 patients took MMA on prescription of MBBS doctor. Over the counter unsupervised use was highest, (55%) of patients. Prior confirmation of Gestational age by P/V examination or USG was done only in 18 patients. Most took it after a period of amenorrhoea and positive pregnancy test of urine. (Table 2)

Distribution of patients according to presenting complications are arranged in table 3. Patients were treated according to standard protocol after admission. Check curettage had to be done in 82% of patients. Rest were managed medically. Most patients had complaints of prolonged bleeding (78%) and 11 patients presented with heavy bleeding. Four patients were found in shock and managed accordingly. Many were severely anaemic requiring blood transfusion (60%). (Table 3)

Table 1: The general characteristics of patients.

Age (in years)	Number of patients	Parity	Number of patients	Gestational age (in years)	Number of patients
18-24	22	PARA 1.	8	Less than 7 weeks.	6
24-30	56	PARA 2.	18	7-9 weeks.	58
30-36	20	PARA 3.	48	9-12 weeks.	36
36-42	2	PARA 4.	22		
>42		PARA 5. and more	4		

Table 2: Comprises information about medication according to MMA protocol and comprehensive abortion care guidelines.

Method of Medication	Number of Patients
Combined mifepristone and misoprostol	96
Misoprostol only	04
Route of administration of misoprostol	
Oral	90
Vaginal	10
On prescription of MBBS doctor	12
Other practitioners	33
Self-administered OTC	55
Prior confirmation of Gestational age by P/V examination or USG	18
15th day visit to hospital	07

All the patients were treated as per standard individualized protocol of hospital. There was no mortality and all patients were discharged from hospital successfully.

Table 3: Complications of incomplete abortions following MMA.

Complications	Number of Patients
Check curettage	82
Heavy bleeding	11
Prolonged bleeding	78
Shock	04
Fever	22
Blood transfusion	60
Mean hospital stay	3+1 days

It was observed that heavy bleeding occurred and blood transfusion was required in women who took medicine at higher gestational age (10-12 weeks) and also who waited more than 15 days for bleeding to stop (average being more than 15 days to 1 month).

DISCUSSION

Medical abortion plays a crucial role in safe, effective, accessible and acceptable abortion care. MMA especially the use of misoprostol, has reduced the harmful methods of inducing abortion. It is highly effective if used in correct way preferably below 7 weeks. However, incomplete abortion is a known side effect. The patients coming to PMCH Patna, a tertiary care teaching hospital, are mostly from rural areas and from urban lower and lower middle socioeconomic background. Mifepristone misoprostol combination is being used for abortion but misoprostol alone is also used by some.

In a study done by Pawde et al, 78.1% women used only single drug misoprostol and 21.9% used combined mifepristone and misoprostol but in my study 96% used combined drug.⁴ This shows increased information about MMA and easy availability of combined drugs even in rural areas. Mean age and mean gestational age were 25 years and 9±2 weeks respectively.

Route of administration was largely oral while vaginal was only in 10 (3 self-insertion, 4 by doctor and 3 by nurse), only 12 had taken medicine on prescription of a doctor (5 didn't have it with them).

As compared to 21.8% of Pawde et al, in my study majority of patients took the medicine over the counter or advised by quacks (88%).⁴ In my study only 12% women obtained medication from MBBS doctors. Rest was either suggested by local unauthorized practitioners or over the counter self-administration. Prior confirmation of Gestational age and intrauterine pregnancy was done only in 18% and follow-up was advised to even few. With the approval of MMA for early legal abortions and large increases in the method's availability in both the formal and informal sectors, access to abortion has steadily improved, likely becoming safer as a result. There is no difference in efficacy in home based and clinic based use of MMA.^{3,5}

Although MMA is safe and effective, complications can occur. Heavy bleeding and infection are well known. Study of Koyaji et al and Kallner, have shown that MMA can be used safely and effectively at home even in rural set-up.^{6,7} However, if protocol is not followed and used inadvertently it can also lead to high rate of incomplete abortion and related complications, which can sometimes be life threatening. In my study 11% patients had heavy bleeding mandating them early hospital visit. Some (4%) patients came in shock.

Infection was more common in patients who had prolonged bleeding and visited hospital late after much waiting (were taking medicine clot off and on over the counter (OTC)). Fever was seen in 22 patients. In study of Pawde 63% of women taking MMA required BT but in study of Henderson, they found that though heavy bleeding was common, severe bleeding requiring blood transfusion was low.^{4,8} In my study however, blood transfusion was required in 60% patients with average haemoglobin (Hb) 4-6 gm%.

A study by Bhutta showed, maternal mortality was 9% with unsafe abortions (most had surgical abortion with

complications like septicaemia and bowel injury).⁹ However, no mortality was seen in my patients even after self-administered medication by most of them. This is a major advantage of MMA which is much safer and effective if used in limited period of gestation.

This study is done at a government teaching hospital where most patients are referred from peripheries and other centres. Most patients are from low socioeconomic group where anaemia and infection are already prevalent. Therefore, we might be missing the actual numbers of incomplete abortion following MMA and we might be seeing more complications. A large sample is required to compare safety of MMA on prescription or without prescription.

CONCLUSION

MMA is safe and effective when used wisely with consultation of appropriate health care provider according to WHO and Comprehensive abortion care (CAC) guidelines. Self-use and over the counter medication should be discouraged and avoided. In rural areas and peripheries adequate training of health care providers is needed. MMA has made abortion safe and easily accessible but stress must be given for mandatory visit to trained doctors. Strict action must be taken against pharmacists and untrained providers to stop the misuse of this drug to reduce complications. To make MMA even more safe and effective, women must be educated regarding reproduction and wise and legal use of MTP care facilities. They must be motivated to adopt various suitable contraception practices.

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REFERENCES

1. World Health Organisation. Unsafe abortion: global and regional estimates of the incidence of unsafe abortion and associated mortality in 2008. 6th edition

- Geneva: World Health Organisation. 2011. Accessed on 10 October, 2020.
2. Handbook on Medical Methods of Abortion; to Expand Access to New Technologies for Safe Abortion. Ministry of Health & Family Welfare, Government of India. 2016.
 3. Abortion and Unintended Pregnancy in Six Indian States: Findings and Implications for Policies and Programs. Guttmacher Institute 2018 Report. 2018. <https://www.guttmacher.org/report/abortion-unintended-pregnancy-six-states-india#>. Accessed on 10 October, 2020.
 4. Pawde AA, Ambadkar A, Chauhan AR: A Study of Incomplete Abortion Following Medical Method of Abortion. J Obstet Gynaecol India. 2016;66(4):239-43.
 5. Thoai DN, Park MH, Shakur H. Home-based versus clinic-based medical abortion: systematic review. Bull World Health Organ. 2011;89:360-70.
 6. Coyaji K. Early medical abortion in India: three studies and their implications for abortion services. J Am Med Womens Assoc. 2000;55(3):191-4.
 7. Kopp Kallner H, Fiala C, Stephansson O. Home self-administration of vaginal misoprostol for medical abortion at 50-63 days. Hum Reprod. 2010;25:1153-7.
 8. Henderson JT, Hwang AC, Harper CC. Safety of mifepristone abortion in clinical use. Contraception. 2005;72:175-8.
 9. Bhutta SZ, Aziz S, Korejo R. Surgical complications following unsafe abortion. JPMA. 2003;53:286-90.
 10. The Medical Termination of Pregnancy (Amendment) Bill, 2020. 2020. <https://www.prsindia.org/billtrack/medical-termination-pregnancy-amendment-bill-2020>. Accessed on 10 October, 2020.
 11. The medical termination of pregnancy amendment act, 2002. No. 64 of 2002. 2002. Accessed on 10 October, 2020.

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