

Research Article

Mortality and morbidity associated with illegal use of abortion pill: a prospective study in tertiary care center

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ABSTRACT

Background: In India, medical method of abortion is allowed for first 7 weeks of intra uterine pregnancy. As per WHO it is safe and effective method for termination of early pregnancy under medical supervision. It is done by using mifepristone (200mg) and misoprostol (800mcg). These drugs are not for contraception but are abortion pills. Women use the abortion pills for unintended pregnancy inspite of using various method of contraception due to lack of knowledge, apprehension, poverty, denial, and ignorance of contraceptive use without any medical supervision (illegal use) and become victim of unsafe abortion. The main aim of this study was to find out mortality and morbidity associated with illegal use of abortion pill.

Methods: A prospective observational study was carried out in the department of obstetrics and gynaecology, TMMC and RC Moradabad, a tertiary care center with history of intake of abortion pill (mifepristone and misoprostol) for 1 year from 1st May 2015 to 1st April 2016 on 120 patients. Data was collected and analysed by percentage and proportions.

Results: Illegal use of abortion pill was more common among 30-39 years (55%) group of women and mostly were grand multiparous (81.67%). In most of the cases husband brought the pills (85%) from advice of chemist (70%). The most common presenting complaint was excessive bleeding per vaginum (66.3%). Most common complication was moderate anemia (38.3%).

Conclusions: The present study recommends medical method of abortion is safe and effective under medical supervision. Illegal use of abortion pills without supervision results in serious complications.

Keywords: Illegal use, Abortion pill, Medical abortion, Unintended pregnancy

INTRODUCTION

According to the World Health Organization (WHO), every 8 minutes a woman in developing nation die due to complications arising from an unsafe abortion. In India there is an unmet need of contraception. Women use abortion pill as an alternative to contraception which results in morbidity and mortality. Federation of obstetrics and gynaecological society of India (FOGSI) recommends close monitoring of distribution of drugs that are used for medical abortion and that the medical

profession and pharmaceutical industry should exercise due diligence in the promotion and usage of drugs that are used for medical abortion¹. Despite this, it has been perceived by the society that, medical abortions are extremely safe option even in-hands of untrained personnel, leading to it's over the counter dispensing and possibly increase in unsupervised terminations and life threatening complications.^{2,3}

The aim of the study was to study consequences of illegal use of abortion pill on women's health.

METHODS

It was a prospective observational study; conducted from 1st May 2015 to 1st April 2016 for one year.

Inclusion criteria

All patients attending outpatient and emergency department of obstetrics and gynaecology, TMMC and RC Moradabad, a tertiary care center with history of intake of abortion pill (mifepristone and misoprostol).

After due permission from authority, data was collected from patients who come for follow-up and treatment after taking abortion pill (purchased over the counter by self/family member without medical guidance/ supervision) for medical method of medical termination of pregnancy (MTP).

Detailed history was collected from patients or relative regarding age, education status, parity, last menstrual period, period of gestation, who advised medicine and from where they took medicine, what was presenting complaints. Detailed examination was done i.e. vitals, general physical examination and pelvic examination. Blood investigations and USG was done. According to condition of patient, what treatment was given and what was the outcome has been analysed. A performa related to this study has been filled.

RESULTS

Data was collected from 120 patients who came under selection criteria. Result has been analysed by using appropriate statistical tests.

Table 1: Demographic detail (n=120).

Age in years	Number	Percentage
<19	0	0
20-29	42	35
30-39	66	55
40-49	12	10
Marital status		
Married	120	100
Unmarried	0	0
Education		
Nil	54	45
Primary	40	33.33
Secondary	16	13.33
High school	8	6.66
College	2	1.66
Gravida		
1	6	5
2	6	5
3	5	8.33
4 and more	98	86.67

Table 2: Period of gestation (from LMP) at which abortion pill taken and time intervals between intake of pills to visiting to hospitals.

Gestational age (weeks)	Number	Percentage
<6 weeks	28	23.33
6.1-9 weeks	56	46.67
9.1-12 weeks	26	21.67
12.1-16 weeks	10	8.34
>16.1 weeks	0	0
Time interval (in days) between pill intake and visit to hospital		
0-10 days	66	55
11-20 days	24	20
21-30 days	26	21.67
31-60 days	4	3.33

Demographic details are shown in Table 1. More than half, n=66 (55%) women were in age group of 30-39 years and all were married. Uneducated women were 54(45%). Most of the patients (81.67%) were gravida 4 or more.

Table 3: Who advised the drugs and who brought the drugs.

Drugs advised by	Number	Percentage
Dais/quack	30	25
Chemist	84	70
Relatives	6	5
Drugs brought		
Herself	12	10
Husband	102	85
Other family member	6	5

As shown in Table 2, most of women, n=56 (46.67%) took the abortion pill at 6.1 to 9 weeks of gestation from their LMP and among them, mostly visited to hospitals within 10 days of taking pills.

Table 4: Major complaints after taking of abortion pill.

Complications	Number	Percentage
Excessive bleeding p/v	76	66.3
Irregular bleeding p/v	6	5
Pain abdomen	30	25
Weakness/giddiness	6	5
Fainting attack	2	1.6

Table 3 shows that in most of cases, patient's husband, n-102 (85%) brought the drug by the advice of chemist, n-84 (70%).

Table 4 shows excessive bleeding per vaginam was major complain (66.3%). However in most of the patient more than one symptom were present.

Table 5 shows incomplete abortion was major outcome, n-76 (66.3). In 4 cases (3.3%) there was history of D and C after taking of abortion pills resulted in uterine perforation. In 14 cases patients took the pills without undergoing USG examination resulting in ruptured ectopic pregnancy. So in 18 cases (15%) exploratory laparotomy had to be done. In 50% cases n-60, uterine curettage done, anemia had to be corrected in 8 cases.

Table 5: Outcome (depending on clinical and USG finding) and management, n=120.

Outcome	Number	Percentage
Incomplete abortion	76	66.3
Complete abortion	16	13.3
Missed abortion	6	5
Continuation of pregnancy	4	3.3
Ectopic pregnancy	14	11.6
Uterine perforation	4	3.3
Management		
No need of treatment	8	6.6
Medical management	20	16.6
Surgical curettage	60	50
Correction of anemia		
-By blood transfusion	8	6.66
-By Injectable iron	6	5
Exploratory laparotomy	18	15

Table 6, shows major complication was variable degree of anemia; n-74 (61.6%), in 22 cases patients were in shock. There was no maternal death in present study.

Table 6: Complications, n-120.

Complications	Number	Percentage
Anemia		
Moderate	46	38.3
Severe	28	23.3
Shock	22	18.3
Maternal death	0	0
No complication	20	16.6
Septicemia	4	1.6

DISCUSSION

In worldwide each year 42 million pregnancies end in induced abortion and in which 20 million are unsafe and 95% of these occur in developing countries.⁴

As per the central health management and information (HMIS) system of national rural health mission, a total of 11.06 lakh abortions were recorded in the year of 2008-09 in India. Data on the numbers of unsafe abortions is not available in HMIS or national level surveys.⁵

However as per WHO report published on unsafe abortion: Global and regional estimates of the incidence of unsafe abortion and associated mortality in 2008, large

number of unsafe abortions reportedly take place in India, and an estimate of 200 deaths/100000 unsafe abortion in south central Asia region occurred.⁶

In our society, women use abortion pill for various reasons like- for limiting family size, birth spacing, and unintended pregnancy, failure of contraception or due to socio economic condition without medical consultation in spite of availability of various methods of contraception.

Illegal use of abortion pills means using the pill without the guidelines under MTP acts in India.

The guidelines for medical abortion in India have been prepared by WHO-CCR in human reproduction, All India Institute of Medical Sciences, in collaboration with Ministry of Health & Family Welfare, GOI and Indian Council of Medical Research to assist all those who provide medical abortion services under the MTP Act and ensure safe usage for early medical abortion in India.⁷ Currently the medical abortion in India is approved upto 7 weeks of pregnancy. Medical abortion is offered to those women who have as following.

- Acceptability of minimum three follow-up visits, can understand the instructions, ready for surgical procedure if failure or excessive bleeding occurs, family support, permission of guardian in case of minor as per MTP Act 1971 and easy access to appropriate healthcare facility.
- Mifepristone with misoprostol for termination of early pregnancy not exceeding seven weeks, may be prescribed by a registered medical practitioner as prescribed under section 2 (d) and rule 3, having access to a place approved by the Government under section 4 (b) and rule 4 (1), for surgical and emergency back-up when such a back-up is indicated.
- Before proving MMA, pre-abortion work up and investigation must be done, including counselling, detail history, find out any contraindication of it, general and local examination, investigations: Hb%, urine examination, ABO and Rh blood group.
- For confirmation of pregnancy, location of it and gestation age is very important and where available urine pregnancy test and USG of uterus and adnexa should be done in all cases. After taking formal consent, the recommended protocol is oral mifepristone 200mg on day 1 and after 36-48 hrs misoprostol 800 mcg vaginally or 400mcg misoprostol orally is given under medical supervision.

The patient is instructed to report if having excessive bleeding per vaginum, pain, fainting attack or any problem occurs. *On day 15 (final visit)-*

- A clinical history and pelvic examination should be done to ensure that there are no complications.

- Ultrasonography is required if history and examination do not confirm expulsion of products of conception.
- If she is still having irregular bleeding, curettage may be required.
- The woman should be informed that her next periods may be delayed but should come for a check-up if she does not get period in 6 weeks.
- Contraceptive advice is given and appropriate contraception provided.

In spite of these recommendations, people think that the use of abortion pill is safe without any medical supervision, along with this, easy availability of these pills without any medical prescription, unauthorized persons like dais, chemists, quacks, and even relatives prescribed abortion pill without any fear leading to life-threatening complications.⁸

In present study—the incidence of illegal use of abortion pill is maximum in age group of 30-39 years; among patients 86.67% were multiparous which was similar to studies by Giri et al (83%), Mishra et al (78%), Thaker et al (89.1%).⁹⁻¹¹

As WHO recommendation on medical abortion is up to 9 weeks but in India it is allowed for up to 7 weeks. In our study 46.67% women took medicine at 6.1 weeks-9 weeks of gestation but in other study Giri et al (19%) patients used pills in between 9-12 weeks and 21% after 12 weeks.⁹

Women take the abortion pill at any gestational age and are not aware about possibility of serious life-threatening condition like hemorrhagic shock, ectopic pregnancy.

In present study, 66.3% of the patients had incomplete abortion, 11.6% had ectopic pregnancy, similar to our study Nivedita et al, Thaker et al, Jethani M, et al reported the rate of incomplete abortion was 62.5%, 70.2% and 57.45% respectively.¹¹⁻¹³

In present study, because of unsupervised medication and improper dosing schedule maximum women had excessive bleeding per vaginum. In India where 59% pregnant women are anemic and prevalence of mild (26%), moderate (31%) and severe (2%) anemia is greater among pregnant women, such bleeding further worsens the condition.¹⁴ In present study moderate and severe anemia was present in 46 (38.3%) and 28 (23.3%) women respectively.

For the correction of these anemia blood and blood products and injectable iron was used. Similar results were seen in study of Giri et al, Jethani M, et al, Thaker et al where moderate and severe anemia was present in 30% and 12%, 45.75% and 11.7% and 56.7% and 13.5% respectively.^{9,11,13} In a study of Hausknecht 80,000 patients over 18 months, 13 patients needed blood transfusion that is 0.01%, when the drugs were given under medical supervision.¹⁵ In a study by Deshpande S

et al, no women required blood transfusion when drugs were given under medical supervision.¹⁶ Haemorrhage requiring blood transfusions occur in only about 1 in 1000 cases when drugs are given under medical supervision. In our study anemia was corrected by blood transfusion in 6.66% women.

In our study 14 (11.6%) women had ruptured tubal ectopic pregnancy and 3.3% had uterine perforation after D&C (done outside) following taking abortion pill, for which exploratory laparotomy was done in 15% of cases. In study by Meena et al incidence of ectopic pregnancy was 1.06% but in our study it is higher.¹³ According to WHO, 47,000 women die from complications of unsafe abortion each year.¹⁷

According to the Consortium on National Consensus for Medical Abortion in India, every year 20,000 women die every year due to abortion-related complications.¹⁸ Most abortion-related maternal deaths are due to illegal use of abortion pills.

Complication of unsafe abortion has negative effects not only on life of patients and family but also influences society and government. Hence medical abortion is safe under medical supervision but its use increases maternal morbidity and mortality when used illegally without any medical supervision.

CONCLUSION

In India, unsafe abortion is one of the causes of increasing maternal mortality and morbidity, unintended pregnancy is one of the leading causes for which women go for termination of pregnancy in unauthorized conditions and such unintended pregnancy can be due to lack of knowledge, apprehension, poverty, denial, and ignorance of contraceptive use.

Unsafe abortion is not hampering the quality of life of patient and her family but also increasing the burden of society and government. So by increasing awareness on various methods of contraceptives among society, we can prevent unintended pregnancy and ultimately unsafe abortion.

Newspaper, hoardings, radio, television, nuked-natak, awareness program in school and colleges can play a very important role in creating awareness in society, along with this, government should stop over-the-counter sale of these drugs and provision should be made to make these drugs available directly from hospital/practitioner who are qualified under MTP acts. Chemists also need to be aware about the MTP acts and consequences of medicine that is taken without medical supervision. Medical practitioners also need to go on training or up-to-date on various methods/regimes of safe abortion and improve their knowledge time to time.

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