



## Original Research Article

## Unsafe abortion: Combating the silent menace

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## ABSTRACT

**Background:** Medical abortion (MA) is the mechanism by which the administration of one or more drugs willingly interrupts a pregnancy. Around 46 million induced abortions occur annually worldwide. About half of these are unsafe abortions and they occur in developing countries. With the goal of decreasing the number of maternal deaths due to unsafe abortions, the Medical Termination of Pregnancy (MTP) Act of India (1971) was adopted to legalise abortions. Medical method involving ingestion of oral drugs is an accepted mode of MTP. However, self-administration of MTP pill carries number of risks. This study was carried out on women who presented with complaints following self-administration of abortion pills.

**Materials and Methods:** An observational study was carried out in 100 women who reported with complaints seeking medical help following consumption of abortion pills to the Department of Obstetrics and Gynecology, Kalinga Institute of Medical Sciences and Pradyumna Bal Memorial Hospital (PBM), Bhubaneswar between September 2018 and June 2020.

**Results:** Unmet need for spacing and unwanted pregnancy was the main reason behind self-administration of these pills. Most frequent presenting complaint was excessive bleeding per vaginum (78%). Twelve (12%) of the women presented with severe anemia and another 12% were diagnosed with ectopic pregnancy. Surgical intervention was needed in a majority (84%) of the cases.

**Conclusion:** These unsafe abortions mostly go unnoticed and come to the limelight only when women present with serious consequences. This study highlights the immediate need for regulation and prohibition of unrestricted access to these drugs by the public.

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## 1. Introduction

Everyday 13 women die in India due to causes related to unsafe abortion. Each year almost 6.4 million pregnancies are terminated. Unsafe abortion, the country's third leading cause of maternal death, accounts for 8% of all such deaths each year.<sup>1,2</sup>

Even though unsafe abortion is very dangerous and expensive, for several different reasons, women resort to it. Abortion in women is correlated with unintended pregnancy, economic status, low education and living in deprived neighborhoods.<sup>3</sup>

There is a significant gap in the demand of abortion services and the facilities available. Women who do not have access to safe abortion care subject themselves to unsafe procedures that may even endanger their lives. Incomplete abortion, infection, hemorrhage are some of the complications along with long-term health issues like chronic pain, pelvic inflammatory disease and infertility. The burden of unsafe abortion lies not only with the women and their families, but also with the health system. Blood products, antibiotics, anesthesia, surgical intervention are required for every women admitted for post abortion care. The financial and logistic impact of emergency care can overwhelm a health system.

Clinical studies of medical abortion using mifepristone and misoprostol combinations have typically indicated

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complete abortion rates of >90%.<sup>4-6</sup> The key benefits of the procedure are the avoidance of anesthesia and surgical intervention.<sup>7</sup> In order to improve women's health and quality of life, secure and legal abortion is considered vital.

The aim of this study was to analyze the cases where medical abortion has failed, thereby needing further interventions, the various modes of management used. This study also highlights the need of refinement of the current MTP services and importance of ultrasonographic evaluation before consumption of these pills to rule out ectopic pregnancy and its consequences.

## 2. Materials and Methods

A prospective observational study was conducted with 100 women who presented to the Department of Obstetrics and Gynecology, Kalinga Institute of Medical Sciences and PBM Hospital with complaints following consumption of abortion pills between September 2018 and June 2020. Once the patients were enrolled for the study, a thorough history and physical examination was done as per the proforma. An informed consent was taken and data was collected from all study subjects on the basis of age, parity, educational qualification, confirmation and duration of pregnancy, duration between pill intake and hospital visit, self-administered or prescribed, reasons for termination. The study subjects were diagnosed as incomplete, missed, failed, complete abortion with anemia and ectopic pregnancy following which appropriate management was carried out. Qualitative data was presented with the help of frequency and percentage table.

## 3. Results

In this study, all the 100 women had procured the abortion pills over the counter at local pharmaceutical shops without any prior consultation at any health care facility. Majority of the patients (57%) were in the age group of 21-25 years followed by 30% in the age group of 26-30 years. The youngest was 18 years old and the mean age of patients was  $24.51 \pm 3.19$  years. Contrary to the notion that MTP pill consumption without consultation from health care provider might be more prevalent in younger population, these findings suggest that the practice is distributed among all age groups. The reason being easy availability rather than any clandestine consumption.

Looking at the educational qualification of the study population, it was observed that in the present study 10 (10%) patients were educated up to primary level while 30 (30%) and 23 (23%) patients studied up to SSC and HSC respectively. Thirty three (33%) patients were graduates and 4 (4%) patients had no education (Table 1).

Most of the women had not used any method of contraception for spacing and therefore they had taken the pills to get rid of unwanted pregnancy. We see in our

**Table 1:** Distribution of patients according to age and educational qualifications

Age (Mean $24.51 \pm 3.19$ ) (n=100)	Frequency	Percentage (%)
< 20 years	10	10%
21-30 years	87	87%
≥30 years	3	3%
Educational qualifications (n=100)	Frequency	Percentage (%)
Uneducated	4	4%
Below graduation	63	63%
Graduation	33	33%

study that 28 (28%) patients were Primigravida while 52 (52%) and 13 (13%) patients were Gravida 2 and Gravida 3 respectively. Seven (7%) patients were Gravida more than 4 (Table 2).

**Table 2:** Distribution of patients according to parity

Parity (n=100)	Frequency	Percentage (%)
Primigravida	28	28%
Gravida 2 & 3	65	65%
Gravida ≥ 4	7	7%

MTP kit is indicated for the medical termination of intrauterine pregnancy of up to 63 days of gestation. Taking the pills beyond the recommended period increases the chances of incomplete abortion, excessive bleeding thereby leading to anemia and necessitating blood transfusion, infection and sepsis.

It was observed in the present study that the gestational age at consumption of abortion pills in 28 (28%) patients was early pregnancy (up to 7 weeks) while 52 (52%) and 20 (20%) patients had consumed abortion pills at 7-9 weeks and 9-12 weeks of pregnancy respectively (Table 3).

It was observed in our study that the interval between consumption of abortion pills and hospital visit for majority of the patients (42%) was 1-5 days, followed by 6-10 days in 29%. When the patient does not go for any meaningful counselling, resorts to self-administration, she has no idea of what to expect after MTP pill consumption. Therefore, the reporting pattern becomes erratic and stresses the health care delivery system (Table 3).

Most frequent complaint at presentation was excessive bleeding per vaginum (P/V) (78%) followed by abdominal pain (7%) and bleeding with abdominal pain (7%). Complaints of non-expulsion of products of conception (5%) and irregular bleeding per vaginum (3%) were in small numbers (Table 4). Excessive bleeding per vaginum and pain abdomen are the two dominating symptoms which brings the patient who has consumed MTP pill without a prescription to the ambit of hospital care.

The prevalence of anemia ranges from 33% to 89% among pregnant women and accounts for 20% of total

**Table 3:** Distribution of patients according to gestational age at consumption of pills and duration between consumption and hospital visit

<b>Gestational Age at consumption of pills (n=100)</b>	<b>Frequency</b>	<b>Percentage (%)</b>
< 7 weeks	28	28%
7 - 9 weeks	52	52%
10 - 12 weeks	20	20%
<b>Duration between consumption and hospital visit (n=100)</b>	<b>Frequency</b>	<b>Percentage (%)</b>
1 - 10 days	71	71%
11 - 30 days	27	27%
> 30 days	2	2%

**Table 4:** Distribution of patients according to complaints at presentation

<b>Complaints at presentation (n=100)</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Bleeding per vaginum	78	78%
Abdominal pain	7	7%
Bleeding P/V + Abdominal pain	7	7%
Non expulsion of products of conception	5	5%

maternal deaths. Self-medication of abortion pills in women with severe anemia could be fatal. It was very alarming to see that 12 out of 100 (12%) of women in our study presented with severe anemia. A total of 22 women required blood transfusion for the correction of anemia, of which 4 had hemoglobin value less than 4gm/dl, thereby requiring 3 units of whole blood transfusion. Around 50% of women had hemoglobin values above 10gm/dl and 38% of women had hemoglobin ranging between 7-10 gm/dl (Tables 5 and 6). Acute blood loss following unsupervised MTP pill intake necessitating blood transfusion is a real cause of concern.

**Table 5:** Distribution of patients according to hemoglobin concentration

<b>Hemoglobin (n=100)</b>	<b>Frequency</b>	<b>Percentage (%)</b>
< 7 gm%	12	12%
7 - 10 gm%	38	38%
> 10 gm%	50	50%

**Table 6:** Distribution of patients according to blood transfusion

<b>Blood transfusion (n=22)</b>	<b>Frequency</b>	<b>Percentage (%)</b>
1 - 2 units	18	81.8%
3 units	4	18.2%

Coming to the diagnosis, 66 (66%) and 10 (10%) women in our study were diagnosed as incomplete abortion and

complete abortion with anemia respectively while 6 (6%) patients each were diagnosed as missed abortion and failed abortion. The incidence of failed abortion strongly points out to erroneous and incomplete dosing schedules with which the drug was taken. Twelve (12%) patients were found out to be ectopic pregnancy (Table 7). As these women did not have the benefit of counselling by health-care workers and bimanual examination also was not done to assess the uterine size, ectopic pregnancy went undetected.

**Table 7:** Distribution of patients according to the outcomes

<b>Outcomes (n=100)</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Incomplete abortion	66	66%
Complete abortion + Anemia	10	10%
Missed abortion	06	06%
Failed abortion	06	06%
Ectopic pregnancy	12	12%

We planned surgical management by suction and evacuation for 72% (72) women. Six (6%) of them were given supplementary medical management with Misoprostol. Ten (10%) of the women who presented with complete abortion with anemia were managed conservatively with blood transfusions, thereby correcting the anemia. The remaining 12% (12) of the patients who were found out to be cases of ectopic pregnancies were managed either by laparotomy or laparoscopic salpingectomy (Table 8).

**Table 8:** Distribution of patients according to management provided

<b>Management (n=100)</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Suction & Evacuation	72	72%
Medical management with Misoprostol	06	06%
Anemia correction	10	10%
Laparotomy/Laparoscopy	12	12%

In the present study, majority of the patients (74%) had hospital stay of 1-2 days followed by 3-5 days (24%) and 5-7 days (2%) (Table 9).

**Table 9:** Distribution of patients according to the duration of hospital stay

<b>Duration of hospital stay (n=100)</b>	<b>Frequency</b>	<b>Percentage (%)</b>
< 5 days	98	98%
5 - 7 days	02	02%

#### 4. Discussion

Women living in every country, irrespective of its development status, have been facing the problem of unintended pregnancy. Unwanted pregnancy and the resulting unsafe abortion practices is an important public health issue in both developing and developed countries because of its negative association with the social, economic and health outcomes for both women and their families.<sup>8</sup> Medical methods of abortion, as per the World Health Organisation (WHO) are known to safe and effective when performed under supervision. It provides greater independence and privacy and has become more widespread in both legal and illegal procedures and this can be attributed to its unrestricted availability and purchase over the counter.

In our study all the 100 women had purchased the medications at local pharmaceutical shops without any consultation or ultrasonography. This idea was mostly instilled by their husbands or other family members. Most women (57%) were in the age group of 21-25 years and majority had sought abortion in the first trimester. Eighty-five (85%) of the women presented to the hospital within 15 days of consumption of the pills. Amongst these, majority had the complaint of excessive bleeding per vaginam followed by abdominal pain. Reinstating the fact that indiscriminate use of these drugs can lead to life-threatening complications like hemorrhage and anemia, 50% of these women had hemoglobin values below 10gm/dl and 22% needed blood transfusion for anemia correction.

Sixty-six (66%) and 10 (10%) patients were diagnosed as incomplete abortion and complete abortion with anemia respectively while 6 (6%) patients each were diagnosed as missed and failed abortion. Twelve (12%) patients were diagnosed as ectopic pregnancy. Over-the-counter availability, failure to strictly follow the guidelines, unsupervised usage of abortion pills have led to an increase in ectopic pregnancies. Under diagnosis of ectopic pregnancy can lead to potentially serious consequences in patients who have taken these pills without prior confirmation of intrauterine gestation.<sup>9</sup>

Surgical intervention was necessary in 84% of cases, with 12% laparotomy/laparoscopy for ectopic. All the patients in our study were discharged within a maximum time period of 1 week in a stable condition with adequate contraceptive counselling.

#### 5. Conclusion

Medical methods of abortion are convenient and reliable when carried out under medical supervision. Many concerns, such as greater chances of incomplete abortion, failed abortion, hemorrhage leading to anemia and blood transfusion, septic abortion and missed ectopic pregnancy are associated with unchaperoned use of medical abortion pills. So, it is important to avoid over the counter trading of

these drugs. In addition, it is necessary to address the need to educate women about the use of these medications.

This study shows urgent need for legislation and restriction of drugs used for medical termination of pregnancy. Drugs should be made available via health care facilities to reduce maternal morbidity and mortality which is due to indiscriminate use of these pills. We also emphasize on the need of ultrasonographic evaluation before intake of these pills so that ectopic pregnancy is not missed.

#### 6. Source of Funding

None.

#### 7. Conflict of Interest

The authors declare that there is no conflict of interest.

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