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Original Article

Self-administration of MTP Pills and its Complications: An Observational Study

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Abstract

Background: Medical termination of pregnancy (MTP) has been legalized in India since 1971. MTP pills are well effective in the early weeks of gestation and safe only when used under medical supervision.

Aims and Objectives: The aim of the study was to find out the clinical presentations and complications following self-administration of MTP pills.

Materials and Methods: This was a retrospective observational study conducted at SMGS Hospital, Government Medical College Jammu from July 2018 to June 2019. Hundred patients were included in the study. Following factors were studied such as chief complaints, complications, treatment given, and blood transfusion.

Results: Majority (57%) of patients were aged between 30 and 39 years. About 66% were gravid three or more. Only 28% had taken the pill within prescribed gestational age limit for MTP, i.e., <7 weeks. Mid-trimester pill intake was encountered in 14% patients. About 41% presented with incomplete abortion. Anemia was present in majority of patients and blood transfusion was done in 38% patients. About 24% patients presented with life-threatening shock. Sepsis was present in 5% patients. Emergency laparotomy was required in 4% cases. Hysterotomy was done in 2% cases. Continuation of pregnancy was noted in 6% patients. Unintended pregnancy and limiting family size were main reasons for abortion 62% and 32%, respectively.

Conclusions: Unauthorized over-the-counter availability despite legal ban and ignorance of women have led to increased number of unsafe abortions. Increasing awareness among women regarding complications of unsupervised pill intake and easily availability of safe contraceptive methods can help control this health hazard.

Key words: Medical termination of pregnancy pill, Over-the-counter, Self-medication, Unsafe abortion, Unwanted pregnancy

INTRODUCTION

Unwanted pregnancy is a common problem worldwide. According to the World Health Organization (WHO), 19 million women worldwide undergo unsafe abortions annually and 18.5 million of these cases occur in developing countries. Mortality attributed to these unsafe abortions is around 68,000/year. In India, about 6.4 million abortions occur per year, and among these 56% are unsafe and responsible for 8–20% of all maternal deaths.[1] When performed as per guidelines, medical abortion is a safe method of termination with success rate of 95 99%.[2] Combination of mifepristone and misoprostol is commonly used drugs for medical methods of abortion. WHO recommends medical abortion using 200 mg of mifepristone followed by 800 μg of misoprostol vaginally or orally 24–48 h later for termination of pregnancy up to 9 weeks. WHO guidelines necessitate women requesting medical abortion to confirm pregnancy, estimate correct gestational age, and locate site of pregnancy, rule out contraindications, and it also recommends that the person or facility providing medical abortion should have back up facility in case of failed or incomplete abortion.[3]

The guidelines for medical abortion in India have been prepared by the WHO in human reproduction, All India

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Institute of Medical Sciences, in collaboration with Ministry of Health and Family Welfare, Government of India and Indian Council of Medical Research according to which medical abortion is approved up to 7 weeks of pregnancy.[4] Federation of Obstetrics and Gynaecological Societies of India 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 abortion.[5] As per the medical termination of pregnancy (MTP) law in India, abortion pills can only be prescribed by registered medical practitioner.[6]

However, self-administration of abortion pills is rampant throughout the country due to over-the-counter availability of these drugs and complications are not uncommon due to this practice.

Aims

The objectives of this study were to evaluate the clinical presentation and complications following self-administration of MTP pills.

MATERIALS AND METHODS

A retrospective study was done in SMGS Hospital, Government Medical College Jammu in 1 year period from July 2018 to June 2019. Data were collected from medical records section. A total of 100 patients were included in the study.

Inclusion Criteria

Patients who had come after self-administration of the medical abortion pill were included in the study.

Data were collected from all patients regarding their age, parity, last menstrual period, presenting complaints, reason for abortion, time interval between pill intake and visit to hospital, investigation, and ultrasonography at time of admission, treatment given, management of complications and need for blood transfusion.

Analysis of data was done and results were tabulated.

RESULTS

During the study period of 1 year, 100 women had come after self-administration of medical abortion pills. The demographic profile of these women is shown in Table 1. The abortion pills were used by women of all ages. Majority of the women belonged to age group of 30–39 years. In our study, about 64% of the women were gravid three or more.

The gestational age at which an abortion pill was consumed is shown in Table 2. In this study, we found that only 28% of the women had taken the pill within the prescribed gestational age limit of up to 7 weeks. The majority (58%) had history of pill intake beyond 7 weeks gestation but within first trimester and 14% of the women had mid-trimester pill intake leading to increased complications. Majority of the patients (70%) attended the hospital between 0 and 14 days of pill intake. Three percent women presented beyond 1 month. Majority of patients (78%) had consumed the pill without prior ultrasonography to confirm the gestational age or localize the pregnancy. Unintended pregnancy, limiting family size, and failure of contraception were the main reasons for abortion by 62%, 32%, and 16%, respectively [Table 2].

Majority (41%) patients presented with bleeding per vaginam along with the passage of fleshy mass. About 24% patients presented with life-threatening shock. Prolonged irregular bleeding per vaginam was encountered in 14% patients. Continuation of pregnancy was reported by 6% women. About 5% women presented with sepsis [Table 3].

Table 4 shows the diagnosis of patients at admission. About 41% of patients presented with vaginal bleeding on and off and were diagnosed as incomplete abortion, whereas 24% patients presented with shock, 4% patients diagnosed as complete abortion, 13% as missed abortion, and 6% as continued pregnancy. All six patients with continued pregnancy had taken abortion pills after 9 weeks of gestation. There were 5 (5%) patients presented with high-grade fever, abdominal pain and vaginal bleeding were diagnosed as septic abortion. There were 4 (4%) patients diagnosed as ectopic pregnancy, and all of them underwent laparotomy. About 3 (3%) patients were diagnosed as hydatidiform mole.

Table 5 shows the severity of anemia and the need for blood transfusion in these women. Among these 100 women, 38% had varying severity of anemia, which was managed by blood transfusion. It was very alarming to see that 12% of women presented with very severe anemia which can sometimes be a life-threatening complication. There were 3% of patients who needed four or more units of blood transfusion.

Table 6 shows the treatment received by patients in the hospital. Suction and evacuation were performed in 68% of the patients. Blood transfusion was required in 38% patients and 72% were prescribed oral or intravenous iron therapy. Around 24% patients were presented in shock requiring urgent resuscitative management. Emergency laparotomy was required in 4% patients and in 2% hysterotomy was done. Cases of sepsis were managed by intravenous antibiotics.

Table 1: Demographic details of the patients (*n*=100%)

Parameters	% patients
Age (years)	
20–29	41
30–39	57
40–49	2
Gravida	
1	4
2	30
3	52
4 or >4	14

Table 2: Gestational age at pill intake, time interval intake of pill, and visiting to hospital, reasons cited for abortion

Parameters studied	% of patients
Gestational age at pill intake (weeks)	
<7	28
7–9	40
10–12	18
13–14	11
>14	3
Time interval (between pill intake and visit to hospital in days)	
0–7	38
8–14	42
15–21	13
22–28	4
>28	3
Ultrasonography before pill intake	
Yes	22
No	78
Reasons for abortion	
Unintended pregnancy	62
Limiting family size	32
Failure of contraception	16

Table 3: Chief complaints of patients presenting with the unsupervised intake of medical termination of pregnancy pill intake

Chief complaints	% patients
Heavy bleeding with passage of fleshy mass per vaginam	41
Shock	24
Irregular bleeding per vaginam	14
Pain abdomen	10
Continued pregnancy	6
Fever with pain abdomen and foul-smelling discharge per vaginam	5

Table 4: Diagnosis at admission

Diagnosis at admission	% patients
Incomplete abortion	41
Complete abortion	4
Missed abortion	13
Continued live pregnancy	6
Septic abortion	5
Ectopic pregnancy	4
Hydatidiform mole	3
Shock	24

Table 5: Severity of anemia and need for blood transfusion

Severity of anemia	No.(%) patients
Very severe anemia Hb <4 g%	12
Severe anemia Hb 4–6.9 g%	26
Moderate anemia Hb 7–9.9 g%	28
Mild anemia Hb 10–10.9 g%	34
Blood transfusion	
One unit	16
Two unit	11
Three unit	8
Four unit	3

Table 6: Treatment received by the patients presenting with the unsupervised intake of medical termination of pregnancy pill

Treatment received	% patients
Management of shock	24
I/V antibiotics	5
Suction and evacuation	68
Blood transfusion	38
Laparotomy	4
I/V iron therapy	10
Oral iron therapy	62
Hysterotomy	2

I/V: Intravenous

DISCUSSION

Unsafe abortion is an important cause of increased maternal morbidity and mortality in developing countries. The advent of medical abortion pill was intended to protect women from complications. However, its widespread misuse, ignorance, and unawareness of complications of unsupervised intake on the part of women and easy over-the-counter availability of the pill have made this a public health hazard. In India, MTP act was passed in 1971 to prevent unsafe abortion with the aim of reducing the number of maternal morbidity and mortality due to unsafe abortion.[6]

In our study, the majority of women were in the age group of 30–39 years. These results were consistent with Shivali *et al.*[1] About 66% women were gravid three or more. These results were consistent with Shivali *et al.*,[1] 77% women were gravid three or more in their study. Similar results were found in studies by Mishra[7] (37%), Giri *et al.*[8] (83%), and Kumari *et al.*[9] (86.67%).

The safe upper gestational age limit for pill intake is up to 7 the weeks, as per MTP Act of India. The risk of complications associated with all forms of abortion

increases with gestational age. The risk is more if it is performed after first trimester even if performed under the best circumstances. In our study, only 28% of patients had taken the pill at the recommended gestational age, i.e., 7 weeks. In study by Shivali *et al.*,[1] 26% patients had taken the pill up to 7 weeks of gestation. Similar results were reported by Mishra[7] (37%). In our study, 58% patients had taken pill beyond 7 weeks but within first trimester and 14% of the women presented with mid-trimester pill intake leading to increased complications. Similar results were reported by Shivali *et al.*[1]

Ultrasonography should be done before prescribing the pill for pregnancy localization and confirmation of the gestational age. However, our study only in 22% patients, prior ultrasonography was done and rest 78% patients had taken pill without prior ultrasonography. Ultrasonography was done in our hospital revealed diagnosis of missed abortion, ruptured ectopic pregnancy, and molar pregnancy in 13%, 4%, and 3% cases, respectively. These findings were similar to study by Shivali *et al.*,[1] missed abortion (7%), ectopic pregnancy (5%), and molar pregnancy (3%).

About 80% of patients reported to the hospital between 0 and 14 days of pill intake, which is similar to study done by Shivali *et al.*[1] (69%). Agarwal and Datta[10] also found same result (76.6%). Four percent women presented to hospital after 1 month of pill intake. The main reasons for abortion were unintended pregnancy (62%), limiting family size (32%), and failure of contraception (16%). Shivali *et al.*[1] also found similar results, unintended pregnancy (38%), limiting family size (36%), and failure of contraception (26%).

The most frequent complaint for admission was heavy vaginal bleeding along with a history of passage of fleshy mass, i.e., incomplete abortion. About 41% patients were diagnosed as incomplete abortion. The findings collaborate with other studies by Shivali *et al.*,[1] Agarwal and Datta,[10] and Thaker *et al.*[11] where reported rates of incomplete abortion were 49%, 56%, and 70.2%, respectively. Suction and evacuation were required in 68% patients. In study done by Shivali *et al.*,[1] suction and evacuation were done in 53% patients. This is similar to study done by Mishra[7] and Kumari *et al.*,[9] suction and evacuation were done in 46.5% and 50% cases, respectively. Method failure is said to occur in when women need surgical evacuation to complete the abortion. About 2–10% women would end up in surgical evacuation. However, in our study, this rate is very high which can be due to unsupervised pill intake by the women.

Varying degree of anemia was present in women in our study. About 26% of patients had severe anemia and 12% had very severe anemia requiring blood transfusion. In our study, 8% patients required 3 units of blood and 4 units were transfused in 3% of patients. These results were similar to another study done by Shivali *et al.*,[1] Kumari *et al.*,[9] i.e., 28% and 23.3%, respectively. More than half, i.e., 62% had mild-to-moderate anemia, for which oral or intravenous therapy was given. These results were similar to study by Shivali *et al.*[1] About 24% patients presented with life-threatening shock requiring urgent resuscitation. In our study, continuation of pregnancy was reported in 6% women. The high incidence of continued pregnancy strongly points out to erroneous and incomplete dosing schedules with which the drug is prescribed by the unauthorized personnel. Serious life-threatening complications like sepsis are common in women undergoing unsafe abortions.[12,13] In our study, 5% women presented with features of sepsis such as fever and pain abdomen. This is similar to the study by Shivali *et al.*[1] (3%) and Agarwal and Datta[10] (3.33%).

CONCLUSIONS

Medical abortion is safe and effective method of abortion when carried out under medical supervision. Unsupervised use of medical abortion pills was associated with many complications such as incomplete abortion, hemorrhage, ectopic pregnancy, and septic abortion. Hence, over-the-counter use of MTP pills should be restricted. Increasing awareness among women regarding complications of unsupervised pill intake and regarding availability and safety of various contraceptive methods can reduce the health hazard caused by unsupervised MTP pill intake.

Ethical Approval

The study was approved by the Institutional Ethics Committee.

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