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Study of outcome of cases of self-medication with mifepristone with or without misoprostol for medical abortion

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Abstract

Background: Globally unsafe abortions contribute to 8-11% of maternal mortality (Lancet 2018). Despite liberal abortion care services provided in India, many women tend to self-medicate with abortion pills for MTP. This in turn results in high rate of unsupervised abortions and life threatening complications. The aim of this study is to evaluate the outcome of self-medication with Mifepristone with or without Misoprostol for medical abortion.

Methods: This is a prospective study done on 51 women who presented in the Department of Obstetrics and Gynaecology, Rajah Muthiah Medical College and Hospital (RMMCH), Chidambaram from November 2018 to October 2020. For all the cases, presenting complaints, personal details, complete general and gynaecological examination findings, mode of treatment, duration of hospital stay and outcome are noted, analysed and tabulated.

Results: During our study period, out of the 576 cases of abortion presented at RMMCH, 51 patients (8.85%) had history of self-intake of MTP pills. About 8 patients (15.7%) presented with hypovolemic shock. Blood transfusion was required for 27 women (52.9%). Sepsis was found in 4 patients (7.8%). Admission for more than 10 days in the hospital was needed in 9 patients (17.5%). Surgical intervention was needed for 42 patients (82.3%). Intensive care was needed in 3 women (5.9%).

Conclusion: Unsupervised use of over the counter abortion pill usage leads to many life threatening complications. Thus women should be made aware that abortion services are liberalised and made easily available to them via health care services. They should be educated to avail those services rather than opting for illegal methods and prevent the occurrence of maternal morbidity and mortality.

Keywords: Unsafe abortion, self-medication with MTP pill, misoprostol, mifepristone

Introduction

In a developing country like India, maternal mortality is still high. According to the data from World Health Organisation (2010-2014), 45% of all abortions in the world were unsafe and 4.7%-13.2% of maternal deaths in the world were attributed to unsafe abortions [2].

Many women land up with unplanned and unwanted pregnancies due to lack of knowledge of contraceptive usage. These women resort to abortion illegally for economic reasons, to maintain secrecy, in cases of extra-marital affairs, etc. Many women out of ignorance consider abortion as a method to space births and do so to limit their family size.

Mifepristone and Misoprostol are "Schedule H" drugs and are to be sold retail on the prescription of a Registered Medical Practitioner only [3]. But unfortunately, it is sold as an over-the-counter drug in most of the pharmacies in India.

When the MTP pill is bought over-the-counter by a woman or her husband or relative and when the pill is taken by a person without any medical prescription or supervision, it is said as "Self-medication" [4]. Because of the over-the-counter availability of MTP pills, many ladies tend to buy them on their own or they are freely prescribed by local dais and quacks. People taking these pills have no knowledge on complications and they land up with complications such as heavy blood loss causing severe anemia, incomplete abortion, septic abortion, shock and sometimes even death. MTP pill if prescribed in correct regimen and with consideration to gestational age and health condition of the women has a success rate of about 93-98% [5].

This study focuses on the outcome of women self-medicating with Misoprostol and Mifepristone for medical abortion and presented at Rajah Muthiah Medical College for further management on occurrence of complications.

Aims and Objectives of the study

1. To evaluate the cases admitted with history of self-medication with Misoprostol and Mifepristone for termination of pregnancy.
2. To study the presenting complaints, complications and management of these cases.
3. To statistically analyse the observations made in the study.

Methodology

This is a prospective study done on 51 women satisfying our inclusion and exclusion criteria and who presented at the Department of Obstetrics and Gynaecology, Rajah Muthiah Medical College and Hospital, Chidambaram from November 2018 to October 2020. The personal details, presenting complaints, complications, mode of treatment, outcome, duration of hospital stay, are collected through a detailed performa and the data is analysed.

Results

In our study among 576 cases of abortion reported in RMMCH during the study period, 51 patients had history of self-medication with abortion pills (8.85%).

Table 1: Age of the patients in study group (N = 51)

Age (years)	N (51)	Percentage (%)
20-25	21	41.1
26-30	20	39.1
31-35	5	9.8
>35	6	10

Table 1 shows that the commonest age group was between 20 and 25 years (41.1%). The youngest being 20 years old and the oldest was 37 years of age.

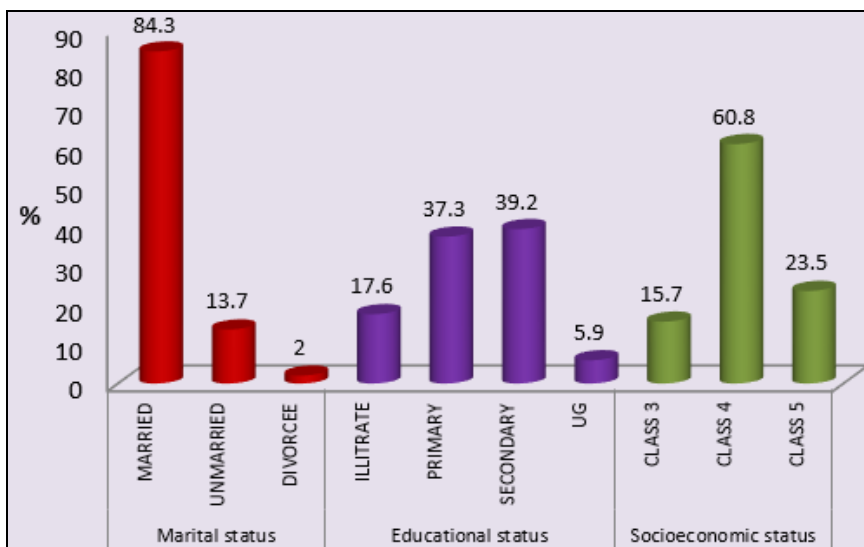


Fig 1: Marital, educational and socioeconomic status of the study population

From Fig 1, it is found that majority of women were married (84.3%) and 13.7% of the women were unmarried. The primary and secondary level of schooling were the common education levels of the patients constituting 37.3% and 39.2% respectively.

About 17.6% of the women were illiterate. Undergraduates were 5.9%. Majority of the patients are of class 4 (60.8%) according to Kuppusamy Naidu classification of socioeconomic status and 23.5% of the women belonged to class 5.

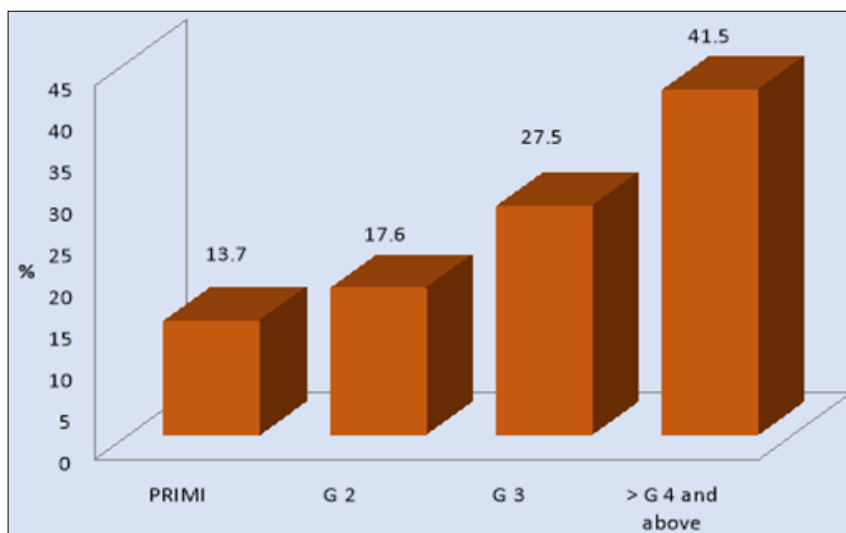


Fig 2: Obstetric score of the patients

From the Fig 2, it is inferred that the most common status was G4 and above (41.2%). 13.7% of cases were primigravida and they were all unmarried.

Table 2: Gestational period at which drugs were used for abortion (As per patient history)

Time of pill intake (In weeks)	N (51)	Percentage (%)
Up to 8 weeks	24	47.1
9-12	20	39.2
13-20	2	3.9
>20	5	9.8

Table 2 shows the gestational age up to 8 weeks and 9-12 weeks in 47.1% and 39.2% cases respectively. About 9.8% of the

women tried to abort their pregnancy at more than 20 weeks of gestation.

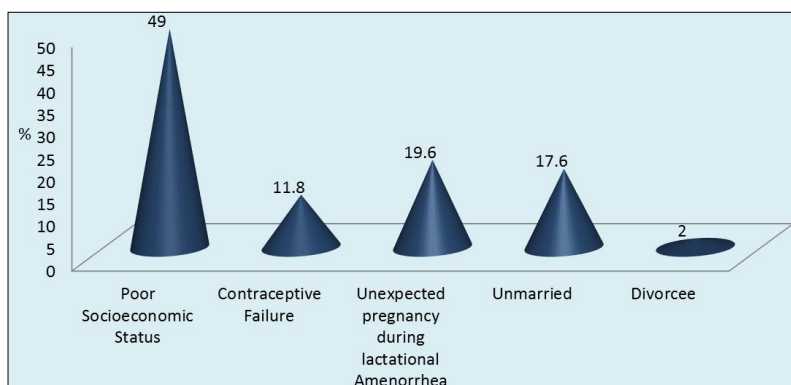


Fig 3: Reason for unmonitored self-intake of drugs for MTP

Fig 3 shows that poor socioeconomic status was the commonest reason for abortion (49%) followed by unplanned pregnancy during lactational amenorrhea (19.6%).

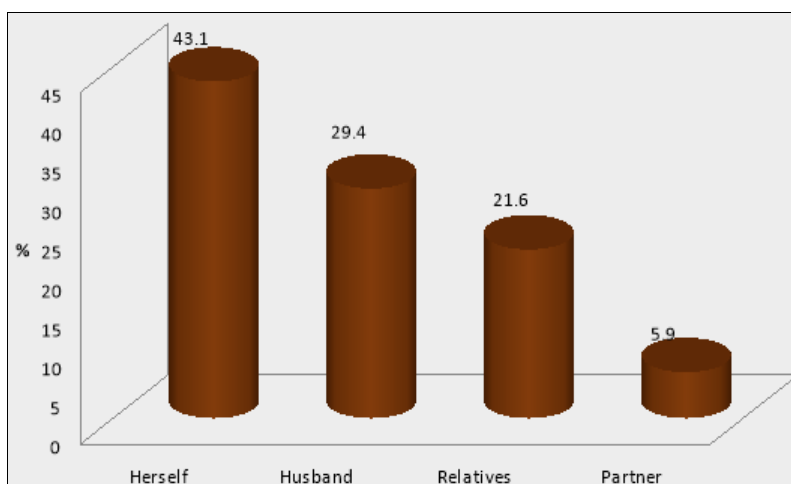


Fig 4: Tablet for MTP was procured by

Fig 4 shows that the patient herself bought the pills in 43.1% of cases followed by procurement by husbands in 29.4% of cases.

In 21.6% of patients, their relatives guided them in getting the MTP pills.

Table 3: Treatment regimen followed by the patients (Irrespective of the gestational age)

Regimen	N (51)	Percentage (%)
1 mifepristone (200 mg) stat	2	3.9
1 Misoprostol (200 mcg) stat	4	7.8
2 Misoprostol (400 mcg) stat	19	37.3
4 Misoprostol (800mcg) stat	9	17.6
1 tablet of mifepristone on day 1 + 1 tablet of Misoprostol (200mg+200 mcg) on day 2	4	7.8
1 tablet of mifepristone on day 1 + 2 tablets of Misoprostol (200mg+400 mcg) on day 2	5	9.8
1 tablet of mifepristone on day 1 + 4 tablets of Misoprostol (200 mg+800mcg) on day 2	8	15.7

Dosage of 1 tablet of mifepristone is 200 mg and dosage of 1 tablet of misoprostol is 200 mcg

Table 3 shows that the most common regimen followed by women in study population was 2 tablets of Misoprostol stat (37.3%). Four tablets of Misoprostol stat was consumed by 17.6% and 1 tablet of mifepristone on day 1 + 4 tablets of Misoprostol on day 2 was taken by 15.7% of the women.

On further analysis, 12 cases out of the total 51 study cases, took the tablets according to the regime suitable to that gestational age. Out of these 12 cases, 6 presented as complete abortion, 2 presented with missed abortion, one woman had ectopic pregnancy and 3 presented as inevitable abortion.

Table 4: Gestational age of the study patients at the time of presentation

Gestational age (weeks)	N (51)	Percentage (%)
Up to 8 weeks	19	37.3
9-12 weeks	10	19.6
13-20 weeks	15	29.4
>20 weeks	7	13.7

From table 4, it is observed that the commonest gestational age at which patient presented was up to 8 weeks in 37.3% cases, and 13.7% had gestational age of >20 weeks. Although 24 patients consumed the abortion pills at gestational age below 9 weeks, only 19 patients presented at gestational age below 9 weeks and the rest 5 patients presented at a later gestational age. This is because these patients had bleeding following MTP pill intake and assumed that they had aborted completely. Thus, they presented to us later with incomplete abortion.

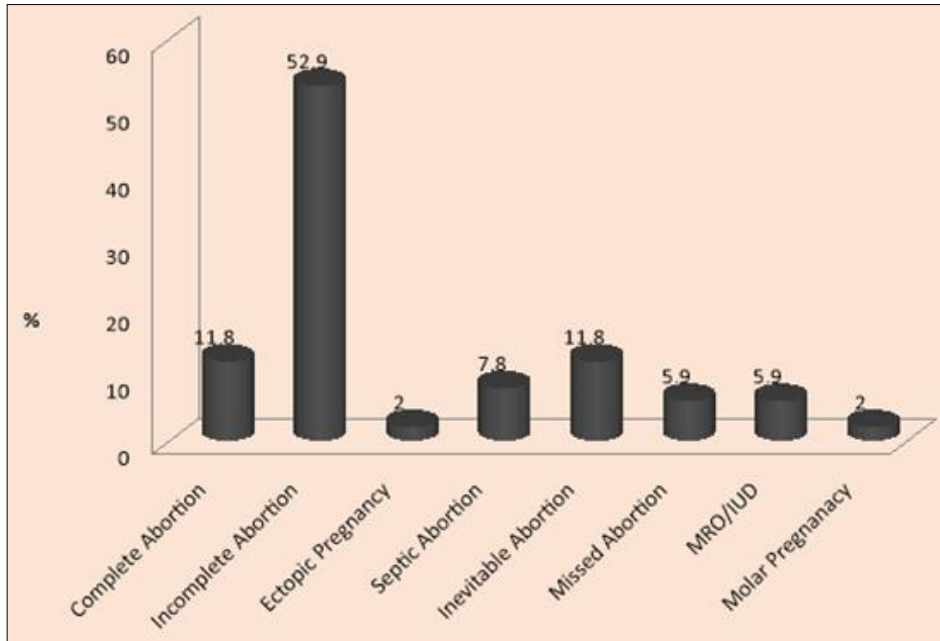


Fig 5: Presentation of the study population

Fig 5 shows that the common presentation was as incomplete abortion (52.9%). Complete abortion was reported in 11.8% of women. Inevitable abortion was the feature for 11.8% of the women. Septic abortion was found in 7.8%. Molar pregnancy was found in 2% and ectopic pregnancy in 2%.

products. The evidence of sepsis was noted in 7.8% of women requiring higher antibiotics. ICU admission was needed for 5.9%.

Table 5: Type of management given to the study patients

Mode of treatment	N (51)	Percentage (%)
Nil intervention needed for abortion except for intravenous antibiotics	6	11.8
Manual vacuum aspiration	1	2
D&C	40	78.3
Surgical (left partial salpingectomy)	1	2
Preterm vaginal delivery	1	2
Labour abnormal (IUD)	2	3.9

Table 5 states that 78.3% of patients underwent D&C. About 6 cases were treated only with intravenous antibiotics as they presented as complete abortion.

Table 6: Supportive care given for management of complications

Management of complications	N	Percentage (%)
Blood transfusion	27	52.9
Parenteral iron therapy	13	25.5
Management of shock	8	15.7
Management of septicemia	4	7.8
ICU care	3	5.9

It is noted from the table 6 that blood transfusion was given for 52.9% of the women. The symptoms of shock were observed in 15.7% and they were treated with intravenous fluids and blood

Table 7: Duration of hospital stay of the patient

Duration (in days)	N (51)	Percentage (%)
<5	16	31.3
6-10	24	47
11-15	8	15.6
>15	1	1.9

Table 7 shows that 47% of the women were admitted for 6-10 days and 17.5% needed admission for more than 10 days.

Discussion

During our study period, totally about 576 patients presented with abortion to the Department of Obstetrics and Gynaecology in RMMCH. Out of which, 8.85% of patients had history of self-intake of abortion pills.

Majority of the patients belong to low socioeconomic class (60.8%). Thus these patients misused the pills due to their ignorance and unawareness about the complications of unsafe and unsupervised abortions. It is also inferred that these women chose unsupervised abortions due to their fear about paying high hospital charges.

Out of the study group, 7 patients (13.7%) were unmarried. These women because of the social stigma and also to maintain secrecy about their pregnancy indulged in illegal methods rather than approaching authorised medical centre for abortion as first step to treatment.

In our study, 41.2% of women are gravida 4 and more. This is

similar to study done by Shivali Bhalla *et al.*,^[6] in which 77% were gravida 3 and above. In the study group, 49% of the women subjected themselves to unsafe abortion procedures due to poor socioeconomic status.

Among the study group, 39.2% had secondary level of education and 17.6% were illiterate. While in study by Divya Pandey *et al.*,^[4] half of the study population had low literacy level. This shows that these women were unaware about the easy availability of abortion services and opted for illegal methods.

In the study population, for 29.4% of the women, their husbands

procured the pills. This shows that these women attempted to terminate the pregnancy with the consent of their husbands. Source of procurement was from people working in pharmacies. Thus, these women took abortion pills without proper dosage and follow up advice. In a study by Shivali Bhalla *et al.*,^[6] 37% of ladies procured pill through their husbands and in a study by Divya Pandey *et al.*,^[4] 75% of cases, their illegal partners are the ones who bought pills from pharmacies. In a study by Sukhwinder *et al.*,^[5] 21.1% pills were brought by their husbands.

Table 8: Comparison of results with similar studies

	Shivali <i>et al.</i> , (2018) ^[6]	Divya Pandey <i>et al.</i> , (2018) ^[4]	Sukhwinder <i>et al.</i> , (2011) ^[5]	Our study
Common age group (Years)	30-39	25-30	>30	20-25
Illiterate	77%	43%	6.5%	17.6%
Low socioeconomic status	87%	83%	-	60.8%
Multigravida	77% (>G3)	75% (>G2)	60% (>G2)	41.2% (>G4)

In our study, 22 women (43.1%) presented at second trimester. 24 patients (47.1%) consumed abortion pills below 9 weeks of gestation. About 7 women (13.7%) attempted second trimester abortion. Out of which, 5 women took the pills at a gestational age above 20 weeks of gestation, at which doing MTP is said to be illegal and should not be attempted. Only 12 patients (23.5%) took proper regimen of MTP pills for the gestational age. In the study by Nivedita *et al.*,^[8] out of 40 women, 29 had taken the abortion pills below 9 weeks of gestation.

Out of the study group, 52.9% of patients presented with incomplete abortion. Darukhshan Anjum *et al.*,^[9] reported that 68% of women presented with incomplete abortion in their study. This indicates that these women attempted illegal abortion in vain and made themselves susceptible to complications like anemia and sepsis due to incomplete expulsion.

In my study group, 80.4% of women required surgical interventions and 12 patients (23.5%) required additional medical therapy for achieving complete abortion. This indicates that almost two-third of study population required further treatment. Thus, the effort of these women to terminate pregnancy on their own was in most of the cases was unsuccessful. This warrants the need for follow up of all case of

MTP to confirm complete abortion.

In our study group, one patient needed laparotomy for ruptured ectopic pregnancy and one needed suction and evacuation for molar pregnancy. These women consumed pills before doing a confirmatory ultrasound, thus subjecting themselves to life threatening situations.

In our study, 15.7% patients presented with hypovolemic shock and 7.8% patients presented with septic abortion. About 5.9% required ICU admission. In our study, 27 patients (52.9%) needed blood transfusion. In study by Nivedita *et al.*,^[6] 15% of patients and in the study by Sukhwinder *et al.*,^[7] 20% of patients required blood transfusion. The above data shows that these women because of their reckless behaviour of self-administration of abortion pills subjected themselves to near fatal complications.

According to National Family Health Survey (NFHS-4) prevalence of anemia in India among women in reproductive age group is 53.1%^[10]. When an anemic woman consumes abortion pills without supervision, she could land up with life threatening complications. In our study, 14 patients had previous history of anemia. Out of them, 6 patients presented with haemorrhagic shock. They were resuscitated with 5 units of blood transfusion.

Table 9: Comparison of results with similar studies

	Shivali <i>et al.</i> , (2018) ^[6]	Sukhwinder <i>et al.</i> , (2011) ^[7]	Nivedita <i>et al.</i> , (2015) ^[8]	Our study
Incomplete abortion	49%	30%	41.5%	52.9%
Ectopic pregnancy	5%	1.15%	-	2%
Septic abortion	3%	15%	7.5%	7.8%
Shock	24%	20%	5%	15.7%
Blood transfusion	28%	20%	15%	52.9%
Surgical evacuation	53%	60%	67.5%	80.4%

Conclusion

Unsupervised use of abortion pills without proper knowledge on correct dosage leads to many life threatening complications. Thus women should be made aware that abortion services are liberalised and made easily available to them via health care services. They should be educated to avail those services rather than opting illegal methods to avoid maternal morbidity and possible mortality.

Women should be educated about the availability of the various contraceptive methods to prevent unwanted pregnancies. Strict legislative measures are needed to reduce over-the-counter usage of MTP pills. Awareness about complications of unsafe abortions should be given to all women to prevent over-the-counter usage of MTP pills.

Limitations of the study

The study population included women who presented to us on occurrence of complications due to self-intake of MTP pills and so, it is difficult to find out the actual number of cases taking self-medication for MTP. Hence, many women who had complete abortion and no complications could have gone unnoticed as they never sought follow up care.

There is also a possibility that other females who presented with abortion to us could have not disclosed the history of self-medication with MTP pills to maintain secrecy. This could have led to selection bias.

Thus, the results of this study reflect only the tip of the iceberg. To know the exact magnitude of the problem a community level study with long study duration is needed.

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