

Prevalence and determinants of medical termination of pregnancy in a rural tertiary teaching hospital

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Abstract

Background: The Medical termination of Pregnancy (MTP) was legalized in India by an act in 1971. The present study is a retrospective data analysis over 5 years to find out the socio-demographic profile, incidence, indications, methods and complications of MTP in our institution.

Material and Methods: This is a retrospective study conducted in a tertiary teaching hospital over a period of 5 years from January 2016 to December 2020. The 5 year data of MTP was analysed by keeping the MTP register as reference. The findings were then documented and analysed.

Results: The incidence rate of MTP in our institute is 27.75/1000 live births. The maternal age group of 21-30 years is availing MTP services the most. 76% of MTP were performed in 1st trimester and 24% were performed in 2nd trimester. Surgical method was the most favoured method of the care giver as well as of the patient in first trimester. Second trimester termination were mostly performed by medical method. Most common reason given for termination of pregnancy was "family completed"(38.26%). Other reasons given were "anomalous fetus" (21.94%), "birth spacing" (17.86%), "social reasons" (13.27%) and "contraceptive failure" (5.61%).

Conclusion: The most common reason for medical termination of pregnancy is unwanted pregnancy due to nonuse of contraception. Women of reproductive age group should be motivated for various methods of contraception. There is need to counsel them that MTP is not a way to control unwanted pregnancy and not free from complications.

Keywords: MTP, Sociodemographic profile, suction evacuation, medical methods

Introduction

Pregnancy is an important event in the life of any woman. However, all pregnancies are not welcomed. Termination of pregnancy is practiced with or without legal sanction from ancient

time. Because of greater safety nowadays abortion has gained tremendous popularity in the last few years to get rid of unwanted child ^[1].

Medical termination of pregnancy was legalized in India in 1971 under which a woman can undergo termination of pregnancy before the age of viability of fetus, if continuation of pregnancy can cause grave injury to the physical and mental health of pregnant woman, substantial risk of child being born with physical and mental abnormalities, pregnancy caused by rape and failure of contraception ^[2]. Some important factors contributing to termination of pregnancy include unwanted and unplanned pregnancy, poverty, birth spacing and social factors. Advancements in early diagnosis of pregnancy and easy availability of ultrasonography have led to tremendous changes in the gestational age of termination and indications of medical termination.

Medical termination of pregnancy (MTP) is the most controversial area of family planning, but it is often the most important method of fertility regulation in the community to control family size ^[2]. Several studies indicate that most abortions are sought to limit family size or space the next pregnancy. The socio-demographic factors like age of women, education and income of family might affect the behaviour of women attending MTP services. Though MTP is a safe procedure it is not free from complications and it is dangerous to use it for spacing.

In India lack of information about different methods of contraception confuse and discourage people from using any contraception ^[3]. Complications can arise from both medical and surgical termination of pregnancy and may be physical or psychological in nature ^[4]. In the post-abortal and postpartum period contraceptive counselling should be given to prevent recurrent abortion.

We conducted this retrospective data analysis of all MTPs conducted in our institute over a period of 5 year. The aims and objectives of present study was to find out the prevalence and indications of MTP in the institution, to find the socio-demographic and obstetric profile of women undergoing MTP and to evaluate the different methods of MTP and their complications.

Materials and Methods

This was a retrospective study conducted at Medici Institute of Medical Sciences (MIMS), a rural tertiary teaching hospital located 35 km away from the city of Hyderabad in Telangana State, India. All women who underwent Medical Termination of Pregnancy in first and second trimester at Medici Institute of Medical Sciences over a time period of 5 years from January 2016 to December 2020 were included in our study.

The records were retrieved from Medical Record Department of MIMS with the help of the data stored in the department of Obstetrics and Gynaecology (MTP Register). Using each women's unique medical record number, case files were obtained and data was obtained on demographic variables and clinical data. Specially designed proforma was used to record various determinants to assess the risk factors which contributed to MTP. Data regarding the indications for termination of pregnancy, various methods used to terminate the pregnancy and complications due to MTP were collected from the medical records.

Statistical analysis

The collected data were tabulated and descriptive statistics were used to analyse the data and it was expressed as percentages and proportions.

Results

Total 196 women availed the service of medical termination of pregnancy during the study

period of 5 years from January 2016 to December 2020. Table 1 shows that majority of the women who underwent MTP were between the age group 21 to 30 years (82%). Maximum number of patients availing the service of MTP were Hindus (61%) followed by Christians (26.53%). Out of 196 patients, 149 (76%) patients underwent MTP in the first trimester and 47(24%) patients underwent MTP in second trimester. Majority of women opting MTP were parous having ≥ 2 children (50%). 28% had 1 living children and 22% had no living children. Out of 196 MTPs performed 30 (15%) were primigravida, 49 (25%) were second gravida and 117(60%) were third gravida and above.

Table 1: Socio - demographic features

Sociodemographic feature		Number	Percentage
Age	≤ 20 years	18	9.18
	21 -30	160	81.63
	31 - 40	18	9.18
Religion	Hindu	120	61.22
	Muslims	24	12.24
	Christians	52	26.53
Gestational age	≤ 12 weeks	149	76.02
	> 12 weeks	47	23.98
Gravida status	Primigravida	30	15.31
	Gravida 2	49	25
	Gravida 3 & above	117	59.69
Living children	One	55	28.06
	Two	91	46.43
	$> two$	6	3.06

The most common reason for terminating the pregnancy was completed family (38%). 43(22%) patients required MTP for congenital anomalies and 35 (18%) patients underwent MTP for birth spacing. Other reasons given were social reasons (13%), contraceptive failure (6%) and to save life of pregnant mother (3%).

Table 2: Distribution of patients according to indication of MTP

Indications	Number	Percentage
Family completed	75	38.26
Anomalous fetus	43	21.94
Birth spacing	35	17.86
Social reasons	26	13.27
Contraceptive failure	11	5.61
To save life of pregnant mother	6	3.06

Table 3 shows the methods of MTP in 196 women. 57% of MTPs were by surgical methods (suction evacuation) and 24% of MTPs were done by medical methods (only misoprost/ mifepristone + misoprostol). 24 patients (12%) underwent combined medical and surgical method (mifepristone+ misoprostol f/b suction evacuation). Most of the second trimester MTPs were by medical methods (Mife + Miso/Foley's induction/Ethacridine Lactate instillation). 5 women in second trimester required hysterotomy because of failed medical method. After the termination of pregnancy maximum number patients (42%) opted for OCPs. 62 (31.63%) women underwent concomitant permanent sterilization and 7 patients agreed for Cu-T insertion. There were 45 patients (23%) who did not agree for any measure of birth control.

Table 3: Distribution of patients according to methods of MTP

Methods	Number	Percentage
Misoprost	16	8.16
Mife + Miso	31	15.82
Suction Evacuation	112	57.14
Ethacridine Lactate	6	3.06
Mife + miso f/b S.E	24	12.24
Foley's induction	2	1.02
Hysterotomy	5	2.55
MTP + sterilization	62	31.63
MTP + Cu T	7	3.57

Most common complication found after medical method was gastrointestinal related like nausea, vomiting, diarrhea and abdominal pain (Table 4). 14 patients came with anemia on admission which was treated with blood transfusion. 6 patients required blood transfusion after MTP because of excessive haemorrhage. 29 patients (15%) required surgical interference in the form of curettage to remove retained products of conception to achieve complete abortion. Infection rate after MTP was very low in our institution. 2 patients had uterine perforation during suction evacuation and one patient of 2 previous caesarean section had uterine rupture during medical method of termination with misoprostol.

Table 4: Distribution of patients according to complications

Complications	Number	Percentage
GI symptoms	25	12.75
Blood Transfusion	20	10.20
Haemorrhage	6	3.06
Infection	3	1.53
Uterine perforation	2	1.02
Uterine rupture	1	0.51

Discussion

Total number of MTP in the present study for the defined duration of 5 years is 196 and total number of delivery during that duration is 7063, indicating the incidence of MTP as 27.75 per thousand deliveries. This is consistent with Katke RD *et al.* [5] study in which incidence rate of MTP was 27.93/1000 live births. In present study, majority of patients who underwent MTP were in the age group 21-30 years (81.63%). Dhilton *et al.* study conducted in 13 states in India found that maximum number of women availing MTP service were in the age group 25-34 years [6]. Ramasubbanand RS *et al.* study suggests that maximum number of females seeking abortion were from age group 20-29 years [7].

In our study, Hindu women sought MTP services in higher proportion (61.22%) as compared to muslim women. However in this area majority were Hindu population. Similar observations were also noted in other studies [8, 9]. However, any reason for unawareness or non-acceptance of MTP in other religions needs investigation for better implementation of health programmes in the society. There was not even a single case of unmarried women in our study who availed MTP service may be because of the fact that they preferred private hospitals for confidentiality.

Majority of women approached the health care service during 5-12 weeks which indicates a better awareness about MTP services. Out of total 196 cases, 149 women (76%) underwent MTP in 1st trimester and 47 women (24%) in 2nd trimester which is comparable to study by Veena L *et al.* [10] where 78.8% of MTPs were done in 1st trimester of pregnancy and 21.2%

in midtrimester.

Higher proportion of women with gravida more than 2 underwent MTP due to not using contraceptive methods though family is completed. Even women having previous history of MTP again approached the health care centre for current pregnancy termination without using any contraceptive method. The facility of MTP is easily available and they are unaware of risk associated with MTP procedure.

Majority of women in our study decided for abortion due to nonuse of family planning methods even after completion of family or when they wanted spacing. 49.49% of the women were having 2 or more living children revealing the fact that in spite of completed family size, these women didn't use any contraception and got unwanted pregnancy. In Koringa HT *et al.* ^[11] the major reasons for MTP were: birth spacing (52.09%), family completed (22.91%) and medical causes (14.58%). In a study done by Santhya and Verma ^[12], family completed was reported as the reason in 41% and the need for spacing in 30% of MTP. Ganatra B *et al.* study showed that only a small proportion (less than 5%) of women reported contraceptive failure as the reason for an abortion ^[13] which is consistent with the present study (5.61%). This is in contrast to study by Veena *et al.* ^[10] which showed 50.4% of MTPs were due to contraceptive failure.

The second most common reason for MTP was for congenitally malformed fetus. These were mostly second trimester abortions in which congenital malformation could be diagnosed. Increasing number of detection of fetal anomalies is an evidence for betterment of availing sonological modalities and diagnostic services for inborn errors in the child. Sometimes multidisciplinary advice from pediatrician, geneticists and extensive counselling regarding decision making for termination or continuing pregnancy was necessary.

In the present study no patient seeking MTP were aware of emergency contraception while in study of Sharma B *et al.* ^[14] 7.4% women seeking MTP were aware of emergency contraception. Mehra *et al.* ^[15] in their study found that only 1 patient was aware of emergency contraception while in study by Tripathy *et al.* ^[16] no patient seeking MTP was aware of emergency contraception. This useful method of contraception should be well publicized to make more females in reproductive age group aware of this useful method of contraception and reduce the number of unsafe abortions.

112 women (57.14%) in the present study were managed surgically, 47 women underwent medical method of termination of pregnancy and 37 women underwent surgical method after failed medical method, similar to study by Katke RD *et al.* ^[17] where surgical method was used in 221 patients (78.92%) compared to 59 cases of medical management. Though there is changing trends for medical method of termination of pregnancy, the surgical method is still favoured ^[18]. This difference between medical and surgical method was because surgical method suction evacuation was convenient, frequent visits were avoided and patient lost to follow up was avoided. The professional decision in our institution was more in favour of surgical method over the medical method. The stay of patients was not increased for iatrogenic reasons or due to complications of the method of MTP which suggests that the service provider is precise in selection of candidates and implementation of scientific and sterile procedure.

After the completion of MTP procedure, 42% women opted for oral contraceptive pills (OCP) as a secondary contraception, 31.63% agreed for permanent sterilisation, 3.57% for intrauterine contraceptive devices (IUCD) and there were 23% women who did not agree for any measure of birth control. Mukhopadhyay *et al.* ^[19], in their study on fertility regulation in Calcutta found that 35.8% accepted IUCD and 30% accepted permanent sterilization as a secondary method of contraception.

Conclusion

MTP accounted for 2.8% of all deliveries. The most common reason for opting MTP was non-practice of contraception or unplanned pregnancy even after completion of family followed by congenitally malformed fetus. These unintended pregnancies can be due to lack of knowledge, poverty, denial and ignorance of contraceptive use. They should be counselled that MTP is not a way to control unwanted birth and it is not free from risk. Adoption of contraceptive practices to avoid unwanted pregnancy and measures to prevent congenital malformation are essential to reduce MTP. Integration and implementation of abortion services at root level is the need of the hour.

References

1. Chaudhuri SK. Pregnancy Termination. In Practice of Fertility Control. 7th ed. Elsevier, 2008, 237.
2. Shankaraiah RH, Annadani RR, Vijayashankar V, Undi M. Medical termination of pregnancy and subsequent adoption of contraception International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2013;2(3):367-71.
3. Sunanda KM, Anitha GS, Chaitra M. Prospective study of contraceptive knowledge among patients the patients seeking medical termination of pregnancy in 1st and 2nd trimester in a tertiary health care. Int. J Reprod. Contracept Obstet Gynecol. 2017;6:4567-72
4. Min LL, Singh K. Termination of Pregnancy: A Review of its Methodology and Post-Abortion Care. Obstet Gynecol. Int. J. 2017;6(5):000-220. DOI: 10.15406/OGIJ.2017.06.00220
5. Katke RD, Prabhudesai AA. Socio-epidemiological factors of medical termination of pregnancy: An overview in a tertiary care institute. Int J Res Med Sci. 2016;4:1061-4.
6. Dhillon BS, Chandhiok N, Kambo I, Saxena NC. Induced abortion and concurrent adoption of contraception in the rural areas of India (An ICMR task force study). Ind J Med Sci. 2004;58(11):478-84.
7. Ramasubbanand RS, Jejeebhoy J. eds, Women's Reproductive Health in India. Jaipur: Rawat Publications, 2000, 186-235.
8. Agarwal S, Salhan S. Septic abortion-current scenario in a tertiary care hospital. J Obstet Gynecol India. 2008;58(2):147-51.
9. Bahadur A, Mittal S, Sharma JB, Sehgal R. Socio-demographic profile of women undergoing abortion in a tertiary centre. Arc Gynecol Obstetr. 2008;278(4):329-32.
10. Veena L, Sarojini. A review of medical termination of pregnancy profile in a tertiary care center. Int J Reprod Contracept Obstet Gynecol. 2017;6:3332-7.
11. Koringa HT, Joshi KJ, Mehta JP. A study of sociodemographic determinants, reasons and decision maker of medical termination of pregnancy in urban slums of Jamnagar, India. Int J Res Med Sci. 2015;3(8):1964-8.
12. Santhya KG, Shalini Verma. Induced Abortion: The Current Scenario in India. Regional Health Forum. 2004;8(2):1-14.
13. Ganatra B. Abortion research in India: What we know, and what we need to know. In: Women's Reproductive Health in India edited by Ramasubban R and Jejeebhoy SJ (Jaipur: Rawat Publications), 2000, 186-235.
14. Sharma B, Saxena N, Sharma A, Arora N. Epidemiology of MTP in a tertiary care center over a period of 3 years. Int J Reprod Contracept Obstet Gynecol. 2017;6:4918-22.
15. Reeti M, Poonam G, Deepti D, Anju H. Knowledge of emergency contraception among women coming for induced abortion. J Obstet Gynecol Ind. 2006;56(3):233-5.
16. Tripathi R, Rathore AM, Sachdev J. Emergency contraception: knowledge, attitude and

- practice among health care providers in North India. *J Obstet Gynecol Ind.* 2003;29:142-6.
17. Katke RD, Prabhudesai AA. Socio-epidemiological factors of medical termination of pregnancy: An overview in a tertiary care institute. *Int J Reprod Contracept Obstet Gynecol.* 2016;5(4):1061-4.
 18. Henshaw RC, Naji SA, Russell IT, Templeton AA. Comparison of medical abortion with surgical vacuum aspiration: women's preferences and acceptability of treatment. *BMJ.* 1993;307(6906):714-7.
 19. Mukhopadhyay AK, Ghosh A, Goswami S, Adhikari S. Fertility regulation-5 year study. *Journal of Obstetrics & Gynaecology of India.* 2008;58(5):421-24.