Original Article

Clinical Analysis of Medical Termination of Pregnancy in a Tertiary Care Centre : A Step towards Reduction in the Incidence of the Procedure

Basanta Manjari Hota[1], NS Sai Anusha[2]

Abstract

Background : Medical termination of pregnancy is an induced abortion in a scientific method before the viability of the conceptus considering the safety of the mother. It is guided by the Medical Termination of Pregnancy Act 1971 with amendments at intervals for better application, the latest being in 2021. With this legalization, the number of terminations of pregnancy, unprotected free sex, and sexually transmitted infections are increasing affecting the reproductive health of the woman.

Material and Methods : The present retrospective cross-sectional study was carried out in Mamata Medical College Hospital, Khammam, Telangana over two years to find the incidence and indications of termination of pregnancy aiming to find the corrective methods to reduce the incidence and improve maternal morbidity and mortality. All the relevant data was collected from the medical records of patients after the Institutional Ethical Committee's permission. Microsoft Excel - 2021 was used for descriptive statistical analysis.

Results : The incidence of medical termination of pregnancy was 28/1000 deliveries. The majority of women (80.36%) were of the 21-30 years age group. Indication in 66.07% of cases was failed contraception and unwanted pregnancy. The complication was in 01.79%. Tubal sterilization following termination of pregnancy was done in 57.14% of cases.

Conclusion : Illiteracy, unawareness of contraception and reproductive health, and social customs in the region need improvement with better counseling. Improving contraception acceptance not only reduces the incidence of pregnancy termination but also protects the reproductive health of the women.

Key words : Medical Termination of Pregnancy (MTP), Contraception,

Medical Termination of Pregnancy (MTP) is ending the pregnancy before viability of the conceptus in a scientific method considering the safety of the mother and is an induced abortion[1]. India is one of the few nations to legalize MTP by formulating the MTP Act of 1971 to promote reproductive health and prevent maternal morbidity and mortality[2]. It succeeded in reducing the Maternal Mortality Ratio (MMR) by 77% from 1990 to 2016 in contrast to a 43% decline in Global MMR and was appreciated by the World Health Organization (WHO)[3]. Amendments are made to this Act from time to time with advancements in diagnostic technologies and new and safer procedures and requirements. MTP Amendment Act 2021 is the latest one which allows MTP even beyond 24 weeks of gestation with certain regulations and restricted indications[4]. The cost of the service is covered by the government for women belonging to economically weaker sections with different packages for specific gestational ages under Ayushman Yojana[5]. India is the first country to legalize paid leave for abortion and extra leave for complications arising from abortion/MTP[6,7]. The country has faced 3,90,928 MTPs from April, 2018 – March, 2019 with different indications and at different gestational ages[8]. Legalization of MTP allows the woman to adopt it in favor of self, conceptus, and family keeping her safety as the priority. But no procedure is always safe even with the best available precautions and methods.

Department of Obstetrics and Gynecology, Mamata Medical College, Khammam, Telangana 507002
[1]MBBS, DGO, Senior Resident and Corresponding Author
[2]MS, Senior Resident
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Editor's Comment :
- MTP though a safe procedure is not free of complications.
- Finding the causes of high prevalence of medical termination and taking steps to reduce it will improve the women's health.
- In addition to the Government schemes, other organizations must work for it and increase awareness among target population.

The average complication of postabortion/MTP in India as found in 2021-2022 was 1.8%[9]. But it was high in certain regions depending on the status of and approach to abortion facilities. Illegal abortions are still occurring due to privacy, Socio-cultural and religious restrictions, ignorance about free healthcare facilities and legalization, leading to increasing complications. Many MTPs are done for unwanted pregnancies which could have been prevented with adequate contraception. Though legally punishable, many female feticides in the second trimester are still occurring. Unprotected and free sex is increasing the number of MTPs affecting reproductive health and increasing sexually transmitted diseases. Comprehensive reproductive health needs the prioritization of health, safety, and reproductive rights of MTP seekers[10]. Considering this, the present study was carried out to find the incidence and indications for MTP in a Tertiary Care

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hospital which caters basically to a Rural population, and to suggest the possible steps to reduce the rate of MTP without affecting women's health.

Material and Methods

This observational retrospective cross-sectional study was conducted in a Medical College Hospital in South India including women admitted for MTP. Women taking medical methods of abortions on a daycare basis were excluded from the study as patient compliance is very poor for follow-up visits in this region. The study period spread over two years, from January, 2022 to December, 2023. With permission from the Institutional Ethical Committee, a detailed Socio-demographic; past medical, surgical, and obstetrics history was taken from the MTP register of the hospital without revealing the patient's identity. Gestational age, indication, the method used, post-MTP contraception, and any complication in present MTP were noted. All the data was compiled and analyzed by simple descriptive statistics, frequency table, and percentage variables for different categories. Microsoft Excel Version 2021 was used as a tool for the descriptive data analysis. The study was critically discussed and compared with similar studies. A conclusion was drawn for present deficiencies leading to high incidences of MTP and corrective measures were suggested.

Results

As the hospital is located in a district headquarters, the majority of women were from Rural areas, from illiterate to secondary school educated, housewives or daily laborers, and low Socio-economic class. There were 112 MTPs in the study period constituting 28/1000 deliveries. Actual incidence was higher, as patients with the medical method of MTP without admission were not included in the study. The age range was 17-38 years and the majority of cases were between 21-30 years of age (80.36%). There was no case beyond 38 years of age as the social trend in the region is early marriage and completion of family followed by tubal sterilization. The age distribution of patients is presented in Table 1.

Rural belonging, poverty, lack of education, and awareness about reproductive health and family planning are prevalent among these patients. The socio-demographic profile of cases is presented in Table 2.

Table 1 — *Age group of women undergone MTP*

Age group (years)	Number	Percentage (%)(n=112)
17 -20	10	08.93
21 - 30	90	80.36
>30	12	10.71

Table 2 — *Socio-demographic profile of patients*

Category	Number (n=112)	Percentage (%)
Residence :		
Urban slum	22	19.64
Rural	90	80.36
Education level :		
Illiterate	82	73.21
Primary	20	17.86
Secondary	10	08.93
Occupation :		
Student	06	05.36
Housewife	28	25.00
Daily wager	70	62.50
Others	08	07.14
Socio-economic status :		
Low	98	87.50
Lower middle	14	12.50

Indication of MTP was failure of contraception and unwanted pregnancy in 66.07% which on further study was found to be a natural method of contraception, in particular abstinence, has a maximum failure rate and not a practical method of contraception for young sexually active women. Hence, for all practical purposes, unwanted pregnancy was the indication in all these cases. One case was for failed tubectomy and reported in the second trimester as she was ignorant about method failure. Second trimester MTP was more than early first-trimester gestation for ignorance of risk, illegal pregnancy in teens, fear of losing their wage, and fetal anomaly. Arranging money for expenditure, and privacy was the reason in many second-trimester MTP cases for their ignorance about free service and privacy in Government facilities. Medical method of MTP was done in 64.29% of cases. The major complication of excessive bleeding was found in two cases needing blood transfusion. One of these was a case of retained adherent placenta in the second

Table 3 — *Details of MTP and contraception*

Category	Number (n=112)	Percentage (%)
Indications :		
Fetal anomaly	24	21.43
Maternal medical condition	12	10.71
Failed contraception & unwanted pregnancy	74	66.07
Failed tubectomy	02	01.79
Gestational age (weeks) :		
a) $\leq$ 9	46	41.07
b) 9 – 12	18	16.07
c) >12	48	42.86
Method used :		
a) Medical	72	64.29
b) Surgical	14	12.50
c) Both	26	23.21
Complication :		
a) Hemorrhage requiring Blood Transfusion	02	1.79
Post abortion contraception :		
a) Tubectomy	64	57.14
b) IUCD	04	03.57
c) Injectable (progesterone)	10	08.93
d) None	34	30.36

trimester MTP which was managed with Injection Methotrexate. The majority of women were parous with an unwanted pregnancy. Post-MTP tubectomy was opted by 57.14% of them. In spite of best possible counseling, 30.36% of cases did not adopt any contraception for fear and the decision was taken by family members. Details of MTP and post-MTP contraception are shown in Table - 3.

The number of one previous MTP was in 16 (14.29%) cases, two previous MTPs in 04 cases (03.57%), and four previous MTPs in 04 cases (03.57%) in this study.

Discussion

Access to contraception and access to MTP are two main determinants of reproductive health and family planning[11]. The Government is making good schemes for both. But what is lagging is education and awareness of the facilities. The present study found 112 cases over two years period, as the medical method of MTP without hospital admission was not included in the study population. The rate of MTP in admitted cases was 28/1000 deliveries compared to 27.93/1000 deliveries by Rajshree D Katke[12] and 27.75/1000 live births by Ke Manga Reddy[13]. Sharma B, *et al* found it to be 96/1000 live births in their study over three years[14]. Age group of 21-30 years constituted the major (80.36%) MTP seekers in the present study as compared to 71.29% by Yadav Anita, *et al*[15], 81.63% by Ke Manga Reddy, *et al*[13] Jain Mahima, *et al* reported 55.7% of women in 20-30 years grop[16] Majority of women in the study were from Rural background, illiterate, and daily wagers. Ignorance of availability and methods of contraception, access to information on reproductive and sexual health, and economic scarcity were the main causes behind this[17]. In the present study, 80.36% of the study population were from Rural backgrounds compared to 70.40% as found by Yadav Anita, *et al* in their study.[15] There were 73.21% of women were illiterate in the present study as compared to 72.30% of women being illiterate or had primary school education as reported by R Maheswari Uma, *et al*[18]. Failed contraception or no contraception for all practical purposes and unwanted pregnancy were the main indication (66.07%) of MTP in this study which was found to be 83.20% by Sharma Bhawna, *et al*[14] and 80.60% by Sharma R, *et al*[19]. The present study had 57.14% cases of MTP in first trimester compared to the report by R Maheswari U, *et al*[18] as 95.10% as they included the cases without admission. Many of the early first-trimester MTP cases in this study were managed by medical methods on a daycare basis and excluded from this study as per the protocol. Medical method was adopted in 64.29% of cases, whereas combined medical and surgical methods of MTP were carried out in 87.50% of cases, which included both surgical methods as initial treatment to start with and failed medical method cases with retained product of conception. Complications of excessive hemorrhage needing blood transfusion were present in two cases (01.79%) out of which one had retained adherent placenta compared to an overall complication of 1.80% in India[9]. Post-MTP tubal sterilization was accepted in 57.14% of cases as they all had completed their family, which was 58.33% as reported by Yadav A[15], 55.9% by Jain M[16] and 58% by Patel R[20]. Despite intensive counseling 30.36% did not accept any contraception compared to 20.70% and 23% as reported by Jain Mahima, *et al*[16] and Ke Manga Reddy[13] respectively.

Unwanted pregnancy due to lack of knowledge and access to contraception is the main reason behind the high incidence of abortion in the region. As per the World Health Organization, six out of ten unwanted pregnancies are terminated by abortion. Restriction on access to abortion does not reduce the rate but increases the incidence of unsafe abortion affecting maternal morbidity and mortality[21]. The real requirement is the restriction of the need for abortion. Therefore, contraception is the best answer to it. Education, awareness, and accessibility to contraception will reduce the rate of MTP.

Conclusion

The purpose of the legalization of MTP is to prevent illegal abortion, protect reproductive health, and improve maternal morbidity and mortality. Awareness, approach, and acceptability of contraception, and quality MTP services are the keys to the success of the scheme. Education makes a person aware and it is lacking in this region. Improvement of Socio-economic conditions and cultural taboos of early marriage have to be abolished. Counseling of contraception, availability and free provision in public health care facilities, maintenance of privacy, and sex education are important aspects to reduce the incidence of unwanted pregnancies and MTP should start at the grass root level by health workers and NGOs as the woman consults the Tertiary Care Center for further management. All women during antenatal care must be counseled for contraception. Health camps should be arranged in this region at appropriate times of the day when women are free of work to educate them about the service and care should be taken to remove the fear of complication from contraception.

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