

PROSPECTIVE ANALYTICAL STUDY ON THE MEDICAL TERMINATION OF PREGNANCIES IN A TERTIARY CARE CENTRE

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ABSTRACT

BACKGROUND

This study is carried out to estimate incidence of medical termination of pregnancies in a tertiary care centre, to analyse the causes of medical termination of pregnancies, to analyse the success of the methods of abortion and adoption family planning procedures in a tertiary care centre (Government Rajaji Hospital, Madurai). This may provide the baseline measures for safe abortion practices and to increase the awareness among men and women of reproductive age, the availability of safe abortion services at locality.

The aim of the study is to know the incidence of medical termination of pregnancies in a tertiary level hospital, to study the causes for seeking MTP, to analyse the success of the methods of abortion and adoption of family planning methods.

MATERIALS AND METHODS

This study was carried out in Government Rajaji Hospital, Madurai, during the period of 12 months from September 2011-August 2012. Of 3516 patients attending the family planning OP, 496 women seek MTP. Among them, every 5th women were selected and thus 100 cases were included in this study. Social parameters like age, education, residence, marital status, family pattern, number of living children, sex of the living children, obstetric parameters like parity, trimester of abortion, methods of abortion, causes for MTP, adoption of family planning methods, basic investigation like Hb%, BT, CT, urine albumin, RFT, blood sugar, blood grouping and typing and VCTC were included.

RESULTS

Induced abortions were common in women in 20-29-year age group, more in third gravid, Hindus, from rural areas, living in nuclear family, married and educated. Most of the women seek 1st trimester abortion with underlying social cause. Majority had surgical abortion. Majority adopted transabdominal tubectomy as the concurrent family planning method. Second trimester abortions common in unmarried, uneducated women.

CONCLUSION

The variables analysed in this study bring into light the social impacts of MTP and the awareness of legal services available. This study helps to strengthen our family planning services and reduce the maternal mortality.

KEYWORDS

Medical Termination of Pregnancy, Induced Abortion, Methods for MTP.

HOW TO CITE THIS ARTICLE: Sellathamby SG, Janakiraman JP, et al. Prospective analytical study on the medical termination of pregnancies in a tertiary care centre. J. Evid. Based Med. Healthc. 2017; 4(44), 2696-2700. DOI: 10.18410/jebmh/2017/536

BACKGROUND

MTP is defined as the termination pregnancy before the foetus become viable (<20 weeks). MTP is induced either by medical or surgical interventions for reasons based on social, medical, eugenic, humanitarian causes (MTP act of 1971).^{1,2,3,4}

Methods depend on the gestational age of pregnancy-

For the 1st trimester MTP, medical abortion is done with mifepristone and misoprostol and surgical methods involve manual vacuum aspiration, dilatation and curettage.^{5,6}

Financial or Other, Competing Interest: None.

Submission 03-05-2017, Peer Review 12-05-2017,

Acceptance 25-05-2017, Published 01-06-2017.

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DOI: 10.18410/jebmh/2017/536



For 2nd trimester MTP, abortion is done with misoprostol followed by check curettage/hysterotomy. Globally, 15% MMR is reported due to unsafe abortions. In India despite of law, 40-50% of unsafe abortion is reported. Therefore, it is essential to provide safe abortion services making affordable and available to all women seeking MTP.

AIM

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MATERIALS AND METHODS

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women were selected and thus 100 cases were included in this study.

Inclusion Criteria

Pregnant women belonging to 1st trimester and 2nd trimester of pregnancy seeking MTP in family planning OP in Government Rajaji Hospital were included in this study.

Exclusion Criteria

Pregnant women with history of threatened abortion, missed abortion and incomplete abortion were excluded in this study.

Social parameters like age, education, residence, marital status, family pattern, number of living children and sex of the living children were included. Obstetric parameters like parity, trimester of abortion, methods of abortion, causes for MTP, adoption of family planning methods were included. General condition of women assessed including anaemia, temperature, bodyweight, pulse, blood pressure, auscultation of CVS and RS done. Confirmation of pregnancy is done by vaginal examination. Urine pregnancy test is done to confirm the pregnancy and USG is mandatory. Basic investigation like Hb%, BT, CT, urine albumin, RFT, blood sugar, blood grouping and typing and VCTC done. ECG taken before assessment. Women with medical disorders were evaluated, concerned opinion obtained is a must. For 1st trimester medical abortion done with T. Mifepristone 200 mg orally followed by T. Misoprostol 800 micrograms kept vaginally 48 hrs. later. USG done on 14th day to confirm the emptiness of the uterus. In surgical method, ripening of cervix done with T. Misoprostol 400 micrograms followed 6 hrs. later by the surgical procedure. For second trimester, pregnancy is terminated with T. Misoprostol 200 micrograms 6th hrly. combined with oxytocin infusion drip followed by check curettage after the expulsion of the products of conception. Either postabortal CuT/permanent sterilisation concurrent with 1st trimester MTP was carried out with the consent of the patient.

RESULTS

Total Number of Patients Attended Family Planning OP During Study Period	Number of Patients Seeking MTP During Study Period	Incidence
3516	496	14.1%

Table 1. Shows the Incidence of Medical Termination of Pregnancies in Government Rajaji Hospital

Age	Number of Cases	Percentage
<20 years	9	9
20-30 years	70	70
>30 years	21	21
Total	100	100
Mean	26.7 years	
SD	4.97 years	

Table 2. Distribution of Cases According to Age

Table 2 shows the distribution of cases according to age. Percentage of induced abortion is highest in the age group 20-30 yrs. contributing to 70%. High fertility in this age group reflect the increased rate of pregnancy. In the age group <20 yrs., the percentage of induced abortion is 9%; in age group >30 yrs., it is >21%.

Total Number of Patients	No. of Patients Seeking MTP	Incidence
Primi	1	1
G ₂	13	13
G ₃	42	42
G ₄	21	21
G ₅	6	6
G ₆	1	1
Unwed	16	16
Total	100	100

Table 3. Distribution of Cases According to Parity

Table 3 shows the distribution of cases according to parity. Percentage of induced abortion highest in 3rd gravida, least in 6, which is 1%. This disparity maybe due to high parity women seeking self-induction being underreported. Unwed group contributes to 16%.

Religion	Number of Cases	Percentage
Hindu	91	91
Christianity	3	3
Muslim	6	6
Total	100	100

Table 4. Distribution of Cases According to Religion

Table 4 shows the distribution of cases according to religion. Percentage of induced abortion highest in Hindus who are the majority. This variation maybe due to forced contraceptive acceptance, stigma associated with induced abortion.

Residence	Number of Cases	Percentage
Urban	38	38
Rural	62	62
Total	100	100

Table 5. Distribution of Cases According to Residence

Table 5 shows the distribution of cases according to residence. Majority of cases come from rural areas upto 62%. Urban women contributed to 38%. This may be due to awareness of facilities at tertiary centre and the lack of trained persons in rural areas.

Family Pattern	Number of Cases	Percentage
Nuclear family	56	56
Joint family	44	44
Total	100	100

Table 6. Distribution According to Family Pattern

Table 6 shows the distribution of cases according to family pattern 56% of women who seek MTP belonged to nuclear family. This may reflect the criticism faced from the members of joint family.

Literacy	Number of Cases	Percentage
Educated	62	62
Uneducated	38	38
Total	100	100

Table 7. Impact of Literacy on Percentage of Induced Abortion

Table 7 shows the impact of literacy on induced abortion. In our study, 62% are educated. This reflects the place of literacy making aware of safe abortion and to avoid unwanted pregnancies.

Marital Status	Number of Cases	Percentage
Married	84	84
Unmarried	16	16
Total	100	100

Table 8. Distribution According to Marital Status

Table 8 shows the distribution of cases according to marital status. Majority 84% of women seeking MTP were married. Unmarried contributes to 16%.

RESIDENCE

Social Parameters among Unwed Women

Age	Total Number of Patients	Percentage
<20	11	50%
20-30	3	44%
>30	2	6%

Table 9 (a). Age

Majority of the unwed women are in the age group <20.

Majority of them belong to Rural Areas

Residence	Number of Cases	Percentage
Urban	5	31.3%
Rural	11	68.7%
Total	16	100%

Table 9 (b). Residence

Family Pattern	Number of Cases	Percentage
Nuclear family	1	6.2%
Joint family	15	93.8%
Total	16	100%

Table 9 (c). Family Patterns

Most of the Unwed Women Belong to Joint Family

Literacy	Number of Cases	Percentage
Educated	4	25%
Uneducated	12	75%
Total	16	100%

Table 9 (d). Literacy

Trimester	Number of Cases	Percentage
I	73	73
II	27	27
Total	100	100

Table 10. Distribution According to Trimester of Abortion

Table 10 shows distribution of cases according to trimester of abortion. Majority of women, 73% seek MTP in the 1st trimester reflecting the availability of both medical and surgical methods for 1st trimester abortion.

Marital Status	No. of Cases	Trimester of Abortion			
		I		II	
		No.	%	No.	%
Married	84	70	83.3	14	16.7
Unmarried	16	3	18.8	13	81.3
`p`		0.0001 Significant			

Table 11. Marital Status According to Trimester of Abortion

Table 11 compared the marital status according to trimester of abortion. Social stigma, criticism by the members of joint family, illiteracy all contribute to increased 2nd trimester abortion among unmarried about 81.3% compared to 16.7% in married women, this is significant (p = 0.0001).

Method	No. of Cases	%
Medical		
Mifepristone + Misoprostol	1	1%
Misoprostol	2	2%
Total Medical	3	3%
Surgical		
MVA	16	16%
D and C/Check curettage	79	79%
Hysterotomy	2	2%
Total Surgical	97	97%
Total	100	100

Table 12. Distribution According To Method of Abortion

Table 12 shows that majority of pregnancies were terminated by surgical methods, which is 97% D and C/check curettage contribute the maximum 79%. Medical method contribute to only 3%.

Causes	Number of Cases	Percentage
Medical	8	8
Social	60	60
Eugenic	32	32
Total	100	100

Table 13. Distribution According to Causes

Table 13 shows the distribution of cases according to reasons for MTP. About 63% contributed by social causes. Medical causes contribute to 32% and Eugenic causes contribute 5%.

Method	No. of Cases	%
Temporary Method	6	9.1%
MTP with CuT'		
Permanent Method		
MTP with TAT	56	84.9%
MTP with LS	3	4.5%
NSV	1	1.5%
Total	66	100%

Table 14. Adoption of Family Planning Method

Table 14 shows the adoption of family planning methods, 9.1% of adopted temporary method and 90.9% adopted permanent method. These figures show the strengthening of our family planning programmes. NSV contribute to the least 1.5% reflecting the misconceptions regarding male sterilisation in our society.

Sex	Number of Cases	Percentage
Male	32	38.5
Female	17	20.5
Male/female	34	41.0
Total	83	100
Table 15(a). Distribution According to Sex of the Living Children		

Table 15- this table shows that about 20.5% patients who seek induced abortion had only female children.

No. of Children	No. of Cases	Percentage
1	18	21.7%
2	46	55.4%
3 and above	19	22.9%
Total	83	100%
Table 15(b). Distribution of Cases According to Number of Children		

55.4% of the women who came for induced abortion had 2 children.

DISCUSSION

Incidence of induced abortion varies throughout the world from 10-30%. Incidence of MTP in Government Rajaji Hospital is reported to be 14%. In our study, mean age of the patient who seek MTP was 26.7 yrs. (20-30 yrs.)⁷ contributing to 70% (K.G. Santhya, et al). High fertility in this age group reflect the increased rate of pregnancy. This is concordant with CDC statistics 2000 and Skjeldestad, et al. Skjeldestad, et al and Ganguly, et al showed that percentage of induced abortion increased with parity than age. But, in our study, the percentage of induced abortion decreased with parity. Third gravida contribute to 42%, but 6th gravida contribute only 1%. This disparity maybe due to high parity women seeking self-induced abortion is under reported. Also, the pressure to accept sterilisation, hesitation to hear comments made by the providers (Barge et al 1997, Chabra and Nuna 1994). Majority of the women come from rural areas (62%). This may reflect the increased awareness of the legal and safe procedures, confidential services at tertiary centre and lack of trained persons at rural areas.⁸ Majority of women who seek MTP belonged to Hinduism (91%), which is followed by the majority people of India. Also, the variation maybe due to forced contraceptive acceptance, stigma associated with induced abortion and less awareness of legal procedures (Khan et al, 1999; Sinha et al, 1998). Majority of women seeking MTP in this study belong to nuclear family 56%. Women may find it difficult to communicate the decision of abortion to the head of the family and face opposition from the members of the joint family. Studies on the profile of women undergoing MTP shows majority were educated (Ganguly, et al). In our study,

62% were educated, reflecting literacy making aware of safe abortion to avoid unwanted pregnancies. Majority of women 84% were married. Among unwed women, majority were uneducated 75%, 68.7% were from rural areas. These data are concordant with the study on the profile of women on MTP (Ganguly, et al) and the sociological implications of pregnancy in unmarried women (Chowdry, et al) and the current scenario in India on induced abortion. In our study, social parameters like age, residence, family pattern, educational status among unwed women has been analysed. Majority of unwed women were from rural areas (68.7%), uneducated (75%), belonging to joint family (93.8%) and are in the age group of 18-21 yrs. These parameters reflect the place of unwed women in our society. Social stigma, criticism by the members of the joint family and illiteracy all contribute to increased 2nd trimester abortion among unmarried. Increased percentage of induced abortion in the 1st trimester (73%) reflects the increased availability of medical and surgical methods for 1st trimester of abortion. Percentage of induced abortion in the second trimester contributes to 27%. 2nd trimester abortion contributes 83.3% among unwed women. Percentage of second trimester abortion among married women is 16.7%. This increase in second trimester abortion maybe due to the delay in recognising pregnancy, delay in decision making, lack of awareness of the facilities and laws and the social stigma. Apart from the above causes, the existing fear regarding the confidentiality of the procedures contribute to increased 2nd trimester abortion among unmarried women (Ganantra et al, 1997; ICMR 1989, Mathai et al). In our study, 97% of the abortions were terminated by surgical methods. This is concordant with CDC statistics 2000, 2003. Among the surgical methods, dilatation and curettage, check curettage contribute to 79%, MVA contribute to 16% and hysterotomy contribute to 2%. Medical methods contribute to 3%.

Methods of Abortion	CDC 2000	CDC 2003	Present Study
Surgical method	97%	90.09%	97%

Risk to health of women and contraceptive failure are the leading causes of induced abortion (current scenario in India on induced abortion). Thus, social causes contribute to majority 63%, medical causes 32% and eugenic causes 5%. 9% adopted temporary contraceptive (IUCD). 86.2% adopted permanent method TAT. 4.6% adopted laparoscopic sterilisation. These figures show the strength of our family planning programmes. 1.5% contribution by NSV reflects the misconception existing in society regarding male sterilisation. In our study, 55.4% of the women seek induced abortion with 2 living children and about 21.7% seek induced abortion with only 1 child. Only 20.5% of women seek MTP with only female children compared to those with only male child and those with both male and female children.

CONCLUSION

This study analysed the incidence of MTP, success of the methods of abortion and adoption of family planning methods. The variables in this study brought into light the social impacts of medical termination of pregnancies. Such study, brings into light, the awareness of legal services available at the government centres maintaining confidentiality, availability of manpower and resources at free of cost. The absence of complications, morbidity and mortality will enlighten the people access to seek induced abortions by trained persons. Such studies strengthen the family planning programmes, reduce the maternal morbidity and maternal mortality by bringing into knowledge of public the safe, effective, legal procedures and maintaining confidentiality.

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