

# MEDICAL TERMINATION OF PREGNANCY: A FOUR YEARS STUDY IN A RURAL MEDICAL COLLEGE OF WEST BENGAL\*

By

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## SUMMARY

A four years study (1983-1987) of MTP Cases, attending Family Welfare Clinic of Bankura Sammilani Medical College Hospital, Bankura, West Bengal, was presented with the following observations:

Out of a total of 48,368 antenatal attendence, 46.77% sought family planning measures of one or other forms, of which MTP was performed in 4.60% cases and MTP with tubal ligation was done in 3.78% cases. Lowest incidence of MTP was recorded in cases having less than 7 weeks duration of pregnancy. Height of uterus did not corroborate with the duration of pregnancy in 92 cases, the reasons were discussed. The incidence of MTP in unmarried women was not negligible, being 12.27%, similarly incidence of MTP in patients without any living children was significantly high, 13.4%. Dilatation and evacuation with or without abdominal tubectomy and abdominal hysterotomy with ligation were adopted for MTP in 48.80% and 32.34% cases respectively. Intraamniotic Hypertonic Saline (IAHS) was used in 11.93% cases which included a large section of single pregnancies. Different types of complications like abdominal wound sepsis, retained products of conception, pelvic inflammation and hyperpyrexia constituted 4.4%, 3%, 2% and 1.5% cases respectively. Four patients expired in the present series and the probable cause was discussed.

### Introduction

The present study was undertaken to highlight the clinical profile of a large group of rural population of West Bengal, who attended a rural Medical College of

West Bengal to utilise the facility of MTP as a mode of family planning.

### Material and Methods

The present study included the cases who attended the antenatal OPD of Bankura Sammilani Medical College Hospital, Dist. Bankura, West Bengal; with special emphasis to those who

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sought Medical Termination of Pregnancy (MTP), during the last four years from April 1983 to March 1987.

The observations were recorded in the light of age distribution, duration of pregnancy, height of uterus, marital status, number of living children, economic status mode of termination of pregnancy and complications arising out of MTP.

*Results and Discussion*

A total number of 48,368 cases attended the Family Welfare Clinic of BSMCH, Bankura, West Bengal, during the period of four years from April 1983 to March 1987 (Table I). Out of these cases 22,622 patients availed different types of perma-

nent or temporary contraceptive measures and MTP as family control measure (Table I).

It was evident that during the years 1983-1984 and 1986-1987, the number of cases (57% and 72%) availing family planning measures exceeded its double during the years, 1984-1986 (32% and 22% respectively). This fall in the incidence was due to uniform reduction in number of MTP cases, condom users, oral pill users and IUCD cases (Table I).

Out of 22,622 cases availing different types of family planning measures 2254 (4.6% of total antenatal attendance) underwent MTP (Table I).

Of these 2254 cases, 1829 cases, 3.78% of total antenatal attendance) had MTP

TABLE I  
Distribution of Cases Attending Family Welfare Clinic of B.S. Medical College Hospital, Bankura, West Bengal, During the Period from April 1983 to March 1987

	1983-1984	1984-1985	1985-1986	1986-1987	Total	(%)*
Antenatal Attendance	13434	9854	12929	12151	48,368	100
Attendance in F.W. Clinic	7647 (57.0)**	3228 (32.0)**	2940 (22.0)**	8807 (72.0)**	22,622	46.77
Sterilisation	76 (0.99)	1130 (33.9)	288 (39.59)	1147 (11.69)	3341	6.90
I.U.C.D.	351 (4.56)	58 (1.47)	95 (3.11)	351 (3.58)	855	1.76
Oral Pill Users	399 (5.19)	224 (6.70)	141 (4.79)	358 (3.65)	1122	2.32
Condom users	6190 (80.47)	1320 (39.60)	1210 (14.14)	6330 (65.57)	15,050	31.11
M.T.P. with or without Ligation	631 (8.20)	496 (14.88)	506 (17.20)	621 (6.27)	2254	4.60
M.T.P. with Ligation	530 (6.903)	358 (11.50)	413 (14.02)	501 (5.11)	1829	3.78
M.T.P. only	101 (1.31)	111 (3.33)	39 (3.16)	120 (1.22)	425	0.87

Figures in paranthesis ( ) indicate percentage of the total attendance in F.W. Clinic during the year.

( )\* indicate percentage of the total number of Antenatal Attendance.

( )\*\* indicate percentage of the total attendance in F.W. Clinic in relation to total antenatal attendance during the year.



with tubal ligation and the rest 425 cases (0.87% of total antenatal attendance) had MTP only. During 1984-1985 and 1985-1986, the number of MTP cases were reduced considerably and this fall reflected more in the number of cases having MTP with sterilisation (Table I).

This finding could not corroborate the observations of Tietze, 1979 that there was an increase in legal abortions after liberalisation of abortion laws.

Analysing the age distribution of cases of MTP (Table II), it was evident that the number of cases were significantly less in the two extremes of age groups

i.e. in patients of less than 15 years and more than 40 years (0.22% and 8.78% respectively). The incidence was highest in the age group of 25 to 29 years having 27.59%, and next came in the series was 23.7% in the age group of 30 to 34 years. Observers from Jaipur (Taly *et al*, 1979 and Bhojwani and Arora, 1981) and Himachal Pradesh (Sud *et al*, 1980) which are situated in the extreme west and north of India experienced a similar blend. The year wise distribution of cases of MTP relating to age group showed almost the same pattern.

Largest number of MTP was done in cases (Table III) with 10 to 12 weeks of

TABLE II  
Distribution of Age Groups in MTP Cases

Age in Years	1983-1984	1984-1985	1985-1986	1986-1987	Total	(%)*
Less than 15	0	0	0	5	5	0.22
15 - 19	39	43	50	42	174	7.70
20 - 24	114	98	118	109	493	19.32
25 - 29	180	135	133	179	627	27.59
30 - 34	159	120	105	155	539	23.72
35 - 39	115	76	74	86	351	15.44
40 - 44	24	24	26	45	119	8.78
45 - Above	0	0	0	0	0	—
Total	631	496	506	621	2254	100.00
Percentage*	27.76	21.82	22.26	27.32	100.00	

TABLE III  
Distribution of MTP in Relation to Duration of Pregnancy

Duration pregnancy	1983-1984	1984-1985	1985-1986	1986-1987	Total	(%)*
weeks						
6	20	38	34	73	165	7.26
7 - 9	160	140	87	118	505	22.22
10 - 12	214	149	132	183	678	29.83
13 - 16	119	86	128	159	492	21.65
17 - 20	118	83	125	88	414	18.20
Total	631	496	506	621	2254	99.16
Percentage*	27.76	21.82	22.26	27.32	100.0	

\*—indicate percentage of total MTP cases.

6 Weeks to 12 Weeks pregnancy—Total 1348 (59.81% of total).

13 Weeks to 20 Weeks of Pregnancy—Total 906 (40.19% of total).

gestation period (29.83%). The incidence of MTP during 7 to 9 weeks and 13 to 16 weeks gestation period was almost equal (22.22% and 21.65%). Lowest incidence was observed in cases having less than 7 weeks gestation period (7.26%), who chose MTP as family planning measure.

Thus it was evident that a total number of 1348 (59.81%) cases underwent MTP during 6 to 12 weeks of gestation period and in the rest 906 (41.19%) cases MTP was done in 13 to 20 weeks gestation period. Contrary to this observation, Das, 1977, Taly *et al.*, 1979 and Bhojwani and Arora, 1981 had most of their cases before 9 weeks of gestation period.

So it was quite clear that a good number of cases came late after missing even second menstruation, reasons accounting for such late attendance may be apathy, lack of consciousness of consequences of amenorrhoea or lack of knowledge due to less education in rural female population (Table III).

The height of uterus (Table IV) on clinical examination, in cases having MTP was below 12 weeks size in 1256 cases (55.72%) and in rest 998 (44.28%) cases it was more than 12 weeks (Table IV).

Now, comparing Tables III and IV, it was evident that the height of uterus did not corroborate with the duration of pregnancy (i.e. period of amenorrhoea)

in a good number of cases; that means in 92 cases the height of uterus was above 12 weeks when amenorrhoea was less than 12 weeks as stated by patients. A reasonable factor to explain this discrepancy was the unknown LMP in lactating mothers and apathetic illiterate patients. Cases with twin pregnancy approaching for MTP was negligible. On the contrary to this observation, Bhojwani and Arora, 1981, from Jaipur had all their patients giving correct date of LMP and the size of uterus corresponded with the duration of amenorrhoea.

The Marital status of patients in the study are shown in Table V. The present study reveals that married women were the majority in the series (80.47%) to avail MTP. Next in the series was single pregnancy cases having 12.27%. Taly *et al.*, 1979, Shah and Bhatt, 1980 and Bhojwani *et al.* 1981 had nearly one fourth of their patients in the group of single, widow or seperated women. The incidence of MTP in married women during these years of study was more or less equal, i.e. did not come down significantly during the later years (83.99%, 77.62%, 81.62% and 80.67% respectively). Others also did not reveal significant fall in the incidence (Table V).

The incidence of MTP (Table VI) in mothers having two or three children

TABLE IV  
Height of Uterus in MTP Cases

Height of Uterus	Ratio	1984-1985	1985-1986	1986-1987	Total	(%)*
12-20 Weeks	277 (43.90)	172 (34.68)	286 (56.33)	263 (42.35)	998	44.28
Below and upto 12 Weeks	354 (56.10)	324 (65.32)	220 (43.47)	358 (57.65)	1256	55.72
Total	631	496	506	621	2254	100.0
Percentage*	27.76	21.82	22.26	27.32		

\*—indicates percentage of total No. of MTP cases.

Figures in Paranthesis ( ) indicate percentage of the total during the year.



TABLE V  
Distribution of MTP Cases According to Marital Status

	1983-1984	1984-1985	1985-1986	1986-1987	Total	(%)*
Married	530 (83.99)	385 (77.62)	413 (81.62)	501 (80.67)	1829	80.47
Single	75 (11.88)	76 (15.72)	65 (12.84)	63 (10.84)	279	12.27
Widow	23 (3.64)	28 (5.64)	24 (4.74)	41 (6.60)	116	5.10
Separated	3 (1.02)	7 (1.02)	4 (0.79)	16 (2.50)	30	1.32
Total	631	496	506	621	2254	99.16
Percentage*	27.76	21.82	22.26	27.32	100.0	

\*—indicate percentage of total MTP cases.

Figures in Paranthesis ( ) indicate percentage of total during the year.

were more or less equal (24.58% and 24.77% respectively) and less than that in mothers having four or more children (31.02%). This is probably a reflection of the attitude of rural population towards family planning programme. Contrary to this present observation, Das, 1977 and Bhojwani and Arora, 1981, have shown that, from urban areas and from wealthy and educated population, the number of mothers with one or two children seeking MTP was highest. The present study also reveals that a good number of cases (Table VI) had MTP who had no living children (13.40%). This included single pregnancies and some cases having medical indications (Table VI).

The patients of low income group (Table VII), i.e. monthly income upto 500/- showed higher rate of MTP than those having monthly income above Rs. 500/- who comprised only 12.55% of the whole group. But Bhojwani and Arora showed that the maximum number of patients in their series, were highly educated and from higher income group. It will not probably be unjustified to surmise that the patients of higher income group of this part of India are more conscious to avoid pregnancy by adopting some sort of family planning measures (Table VII).

The methods adopted for Medical Termination of Pregnancy (Table VIII) in

TABLE VI  
Distribution of MTP Cases According to No. of Living Issue

No. of Living Children	1983-1984	1984-1985	1985-1986	1986-1987	Total	(%)*
Nil	79	42	106	78	305	13.42
One	9	25	26	20	80	9.24
Two	170	124	115	148	553	24.58
Three	182	158	101	166	607	24.70
Four or more	191	147	158	209	705	31.02
Total	631	496	506	621	2254	
Percentage*	27.76	21.82	22.26	27.32	100	

\*—indicate percentage of total No. of MTP cases.

TABLE VII  
Distribution of MTP Cases in Relation to Economic Status

Monthly Income in Rupees	1983-1984	1984-1985	1985-1986	1986-1987	Total	(%)*
Upto 300	378	351	343	365	1426	63.17
301-500	147	100	123	174	544	23.93
501-Above	106	45	50	82	283	12.45
Total	631	496	506	621	2254	
Percentage*	27.76	21.82	22.26	27.32	100.0	

\*—Indicate percentage of the total No. of MTP cases.

TABLE VIII  
Mode of Termination of Pregnancy in MTP Cases

Method Adopted	1983-1984	1984-1985	1985-1986	1986-1987	Total	(%)*
D & E with Abdominal Ligation	381 (50.39)	281 (56.65)	189 (37.35)	312 (50.24)	1100	48.80
D & E only	36 (5.70)	43 (8.66)	31 (6.13)	46 (7.40)	156	6.92
Abd. Hysterotomy with Ligation	212 (33.60)	104 (20.96)	224 (44.26)	189 (14.33)	729	32.34
IAHS	65 (10.30)	68 (13.70)	62 (12.25)	74 (11.91)	269	11.93
Total	631	496	506	621	2254	

\*—Indicate percentage of Total No. of MTP Cases

B.S.M.C.H., Bankrura, West Bengal, were dilatation and evacuation (48.80%), abdominal hysterectomy with tubectomy (32.34%) and intra amniotic hypertonic saline (IAHS) infusion in 11.93% cases. D & C only was performed in the least number of cases (6.92%). Yearwise distribution of cases in this respect was similar except in the year 1985-1986, when abdominal hysterotomy with ligation was performed in larger number of cases (44.26%). PGE<sub>2</sub> (intraovular or extraovular) instillation has been accepted to be safer procedure for MTP but very costly; and so, under the circumstances this safer method could not be made available to the patients in rural West Bengal.

Intra Amniotic Hypertonic Saline infusion is a common method and was applied in unmarried pregnancies in the present series. Infusion of Emcredil, as alternate safer and better method, could also not be provided to the patients of this series because of its higher price (Table VIII).

Twelve per cent of cases i.e. 271 cases suffered from complications (Table IX) of different orders out of the total of 2254 cases of MTP.

Retained products of conception was the commonest complication in 67 cases (3%). Mostly it occurred in IAHS cases and in few D & C cases done by Junior Medical Graduates.



TABLE IX  
Complications After Medical Termination of  
Pregnancy

Complications	No.	(%)
Retained products of Conception	67	3.0
Haemorrhage needing Blood Transfusion	11	0.5
Pyrexia above 102°F	34	1.5
Pelvic Infection	44	2.0
Perforation of uterus	5	0.2
Laceration of Cervix and Vagina	5	0.2
Broad Ligament Haematoma	2	0.1
Abdominal Wound Sepsis	89	4.4
Scar Endometriosis	47	2.3
Incisional Hernia	5	0.2
Death	4	0.19
Total	273	12.20

Pelvic infection in the form of metritis and parametritis occurred in 44 (2%) cases after discharge of patients due probably to unhygienic habits of the rural population, due to flaring up of existing chronic cervicitis and due to retained products of conception for a longer period, as most of the patients stay far away from the hospital, in interior villages.

Pyrexia above 102°F was observed in 34 (1.5%) cases who had IAHS and pelvic infection. These patients responded to conventional treatment.

Abdominal wound infection occurred in 86 (4%) cases and this was due to short hospital stay before and after hysterotomy, occurring from bad personal hygiene of rural mothers and also from hospital cross infection.

Forty seven cases (2.3%) reported afterwards with scar endometriosis and was treated surgically.

Broad ligament haematoma, an unusual complication, occurred in 2 cases (0.1%) during ligation due to peritubal

adhesion causing difficulty in dissection of the tubes.

Death occurred in four patients (0.19%) from hypernatremia, disseminated intravascular coagulation (DIC), post anaesthetic pulmonary oedema and post operative peritonitis, one case each (Table IX).

Death as complication of MTP was not reported by Das *et al*, 1977; Taly *et al*, 1979; Shah and Bhatt, 1980 and Bhojwani and Arora, 1981.

Death occurring after MTP in Hospital practice is unfortunate. But it is well known that hypernatremia, DIC, post anaesthetic pulmonary oedema and post operative peritonitis become unavoidable in certain circumstances, as these might occur due to some personal factors like personal idiosyncracies, personal hygiene and nutritional status, playing a major role in the causation of these complications.

#### Conclusion

A four year study (1983-1987) of MTP cases, attending Family Welfare Clinic of Bankura Sammilani Medical College Hospital, Bankura, West Bengal, was presented with the following observations:

(i) Out of total 48,368 antenatal attendance, 22.22 (46.77%) sought family planning measures of one or other forms.

(ii) Out of these 22,622 cases, MTP was performed in 2254 (4.60% of total antenatal attendance) cases, of which MTP with tubal ligation was done in 1829 (3.78% of total antenatal attendance, cases.

(iii) Patients of 25-34 years of age group underwent MTP in larger numbers i.e. 51.31% cases.

(iv) Highest incidence and lowest incidence of MTP was recorded in cases with

10-12 weeks of duration of pregnancy and less than 7 weeks of duration of pregnancies respectively, having 29.83% and 7.26% respectively.

(v) Height of uterus did not corroborate with the duration of pregnancy in 92 cases as some of the patients could not state correct LMP and some were lactating mothers.

(vi) Though highest number of MTP was done in married women (80.47%), the number of single pregnancy MTP was not negligible (12.27%).

(vii) Mothers with more than three living children sought MTP in the largest number (31.02%), but the incidence of MTP in patients with no living children was not significantly less (13.42%).

(viii) Most of the cases having MTP comprised of patients coming from family of low income group (87.45%).

(ix) Dilatation and evacuation with abdominal tubectomy and abdominal hysterotomy with ligation were the most fre-

quent methods adopted (48.80% and 32.34% respectively). IAHS was also applied in 11.93% cases which included a large section of single pregnancies.

(x) Abdominal wound infection, as complication comprised the largest group (4%). Retained product of conception, pelvic infection and hyperpyrexia constituted a significant group having 3%, 2% and 1.5% incidence respectively. Death was recorded in four (0.19%) cases in the present series.

References

1. Bhojwani, M. N. and Arora, A.: J. Obstet. Gynec. India, 31: 898, 1981.
2. Das, A., Singh, M. and Pankajam, P.: J. Obstet. Gynec. India, 27: 302, 1977.
3. Taly, A., Gupta, P. and Das, R.: J. Obstet. Gynec. India, 29: 961, 1979.
4. Tietze, C.: Induced Abortion, 3rd Ed. New York Population Council, 1979.
5. Shah, H. N. and Bhatt, K. M.: J. Obstet. Gynec. India, 30: 878, 1980.
6. Sud, K., Sharma, S. L. and Kapoor, S.: J. Obstet. Gynec. India, 32: 684, 1982.