

COMPARATIVE STUDY OF SEPTIC ABORTIONS AND MEDICAL TERMINATION OF PREGNANCY.

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SUMMARY

Incidence of septic abortion (S.A.) should be minimized by following approaches:

Encouraging the use of contraception instead of abortion. Risks of contraceptive are much less 125 times from OCS, 40-125 from IUCD and 75 times from sterilization than the illegal abortions.

Providing M.T.P. facilities to every women in need, as legal abortion are always safer than illegal abortion.

Extending M.T.P. training programme to every basic doctor (M.B.,B.S.).

Improving clinical management of abortion complications. For septic abortion, optimal treatment requires immediate evaluation of uterus, large doses of broad spectrum antibiotics and close monitoring of fluid electrolite balance.

Introduction

A major cause of death among women of reproductive age in our country is illegally induced abortion. Liberal M.T.P. Law (1972) has not shown any appreciable decline in the pattern of morbidity and mortality due to illegal abortions (Padubidri and Kolwani, 1980 and Sanjal, 1980). The incidence of abortions as a whole seems to be increasing as more women try to avoid unwanted births and keep their family small. If M.T.P. facilities are not increased proportionately, the illegal abortions inspite of declining

might have increasing trend. In India, illegal abortions are estimated still to be 4-6 million per year (Goyal, 1980, David 1980). Septic abortions and subsequent complications cause between 15-25% of maternal deaths (Malhotra and Devi, 1980).

Material and Methods

Present study has been carried out retrospectively in order to have critical evaluation of M.T.P. and septic abortion (S.A.) cases admitted in Umaid Hospital, Jodhpur since 1976 to 1982. Abortion cases only having definite criterias (described by population Reports, July, 1980) were taken as septic abortion cases. One hundred and fifty-seven cases of S.A. and

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2810 cases of M.T.P. are included in this study.

During this period, 35,415 deliveries were conducted and 33,211 had live births. Maternal deaths including abortions were 242, calculated M.M.R. (including abortion) in 728/1000 live birth, while deaths due to septic abortions constitute 9.54% of total deaths.

Observations and Discussion

There is no definite and significant change in the pattern of incidence of S.A., but M.T.P. normal deliveries, live births are in increasing pattern (Table I). Such patterns have been noted by Sanyle and Ghosh (1980); Padubidri (1980). Incidence of spontaneous abortions are gradually decreasing.

45.7% septic abortion cases belonged to rural area; but only 8.8% cases of M.T.P.

belonged to rural population (Table II) indicating problem of S.A. is equal in urban and rural areas, but facilities and information regarding M.T.P. is still not well known to rural women. Cross sectional studies shows that M.T.P. cases belonging to urban area are those who are educated, better placed and live in well developed colonies, while S.A. cases of urban area came from relatively undeveloped and poor communities and localities. S.A. cases must be much more in number in rural area, but only those who develop complications untreatable at P.H.C. level come to city hospitals and many of them may die unnoticed.

Padubidri (1980) reported that 19% cases of S.A. came from rural area and only 10% were unmarried.

Religious distribution is almost identical in either group (Table II), though

TABLE I
Incidence of Pregnancy Outcome

Year	Septic abortions	M.T.P.	Other type of abortions	Deliveries	Live births	Maternal deaths
1976	28	252	1365	3994	3923	44
1977	17	247	1383	4286	4060	40
1978	21	274	1598	4631	4382	44
1979	27	394	1805	5174	4865	39
1980	20	440	1101	5503	5351	22
1981	29	521	1090	5667	5305	31
1982	15	682	1086	5360	5326	32
Trend	Ind.	Increased	Decreased	Increased	Increased	Decreased
Total	157	2810	9367	35415	33211	242

TABLE II
Residential and Religious Distribution

Group	Rural	Urban	Hindu	Muslims
Septic abortion	70 (45.7)	87 (54.3)	146 (93.0)	11 (7.0)
M.T.P.	246 (8.8)	2564 (91.3)	2670 (95.0)	140 (5.0)

(Percentages are expressed in parenthesis).

Hindu being 95.97%. It does indicate that muslims are not much worried about untimed and unwanted pregnancy and hence do not go for its termination (legal/illegal).

88% and 94.3% women were married in both the groups and only 11.6% were unmarried, divorced or widow in S.A. and M.T.P. group respectively (Table III). It elaborates that even the married women are much more interested to get rid of untimed, unwanted pregnancy, though continuing pregnancy carries no social stigma. Where M.T.P. facilities are not available these women go to unqualified, unauthorised personnel. Same trend has been noted by Sanyal (1980), while Hazara *et al* (1981) have noted that 50% cases of illegal abortions had pregnancy as pre or extra marital.

Only 34.4% of S.A. cases were literate, majority being educated upto 8th class, 64.2% cases of M.T.P. were literate, 60% of them being educated above intermediate standard, hence well informed about M.T.P. and facilities as G.K. increases with educational status (Table III). Majority of patients and equal percentage in either group belonged to low and lower middle income group who cannot afford one more in the family and hence want to get rid of untimed unwanted pregnancy by any person trained/

untrained depending upon their approach. Patients of higher status are frequently using contraception and are less likely to have unwanted pregnancy. Even if they get pregnant, they often seek M.T.P. (Hazara *et al* 1981 and Senyal, 1980) have also expressed similar views.

Pregnancy termination before 20 years of age in primigravida is usually wanted by unmarried or married woman who has not completed her education or her husband is yet not settled. All 26 (16%) cases of S.A. group were unmarried primigravida, while only 4 (11%) cases of M.T.P. were under 20 years of age, but 421 (15%) were primigravida (Table IV).

72.55% and 72% of S.A. and M.T.P. group belonged to middle period of reproductive life. When we consider the parity as well, majority of patients in either group, already have 2 or more than 2 children (Table IV). Women coming for M.T.P. in majority are those who are lactating/not using contraceptive for child spacing/grand multipara who are above 35 years of age, their last child is 5-8 years old and have not been sterilized.

In Hazara *et al* (1981) series, 60% women belonged to early reproductive life. Malhotra and Devi (1979) blames multiparity as a commonest cause for in-

TABLE III
Marital, Educational and Socio-Economical Strata-wise Distribution

Group	Marital status			Education		Socio-economic class			
	Married	Unmarried	Widow separated	Illiterate	Literate	I	II	III	IV
Septic abortion	138 88%	12 7%	7 4.5%	103 65.6%	54 34.4%	35 22.3%	79 50.3%	36 22.3%	7 4.5%
M.T.P.	2649 94.3%	235 4.6%	26 0.9%	1005 35.8%	1085 64.2%	855 30.8%	936 33%	655 23%	364 13.2%

TABLE IV
Age and Gravidity Based Distribution

Group	Age (in years)					Gravidity				
	Below 20	21-25	26-30	31-35	36 and above	1	2	3	4	5 and above
Septic abortion	26 16%	52 72.65%	42	20	17 10%	26 16%	20	31 42.0%	16	65 41%
M.T.P.	112 4%	576 72%	702	739	681 24%	421 15%	590	674 72%	758	367 13%

duction of abortion although 13.4% multiparity as a commonest cause for in-Padubidri (1980) series only 65% cases were below the age of 30 years, 42% cases of S.A. had 3 or more children. Agarwal *et al* (1981) noted that highest number of women were between the age 35-40 years.

66% of cases of M.T.P. came before 10 weeks of gestation. Urban women report earlier, unmarried, widow and rural women are late reporters. 93% of S.A. cases got induced after 10 weeks of gestation (Table V).

Married city dwellers come for pregnancy check up as early as 35 days of amenorrhoea and quite a good number of them have had taken some sort of withdrawal therapy from the chemist. Sanyal (1980) had 35% incidence of early reporters in M.T.P. cases. Percentage of death increases as gestation period increases (Jayaram and Sabitri 1981).

Abortion induction after 10 weeks is 3 times more dangerous than abortion done at less than 8 weeks (Padubidri, 1980). Malhotra and Devi (1979) reported that 55% women did not know about the existence of facility provided by legal abortion law, hence undergo illegal induction of abortion.

Only 25-35% cases of M.T.P. suffer from constitutional symptoms of early pregnancy and all (100%) cases give history of amenorrhoea, while in S.A. cases, widow or unmarried may not even give history of amenorrhoea. Vaginal bleeding, dirty vaginal discharge, fever, pain in abdomen, vomiting, distension of abdomen are the commonest symptoms (Table VI). The incidence of these symptoms varies for 30-85% (Padubidri, 1981). Thus S.A. cases have more symptoms as compared to the M.T.P. cases.

Ninety-three cases of S.A. gave definite history of induction. Vaginal douching.

TABLE V
Distribution of Cases According to Gestational Period

Gestational period (Weeks)	Septic abortion		M.T.P.	
	No.	%	No.	%
6-8	6	—	1826	65.0
10-12	51	93.0	450	16.0
14-16	20		500	18.0
16-20	20		34	0.75
Above 20	5		—	—

TABLE VI
Symptoms Reported by Patients/Relatives

S. No.	Symptoms	Septic	M.T.P.
1.	Amenorrhoea	142 (89%)	2810 (100%)
2.	Bleeding P.V.	112	—
3.	Fever	56	—
4.	Pain abdomen	40	—
5.	Aborted at home	21	—
6.	Fowl smelling dis P/V	10	—
7.	Vomitings	10	25% cases had constitutional symptoms of early pregnancy like morning sickness distaste, frequency of micturation
8.	Abdominal distension	5	—
9.	Retention of urine	2	—
10.	Aneurea	1	—
11.	Mucoid diarrhoea	3	—
12.	Breathlessness	1	—
13.	Semiconsciousness	2	—
Percentage of sufferings		164%	25%
Gravity		Many fold	Negligible

medicated paste, sticks were the common methods of induction. Majority of inducing personnel were unqualified and untrained and induction of abortion was done in unhealthy surroundings, while 82.5% of cases of M.T.P. had D & C vaer-cation, 16.5% had I.A.H.S. intsillation. Only 1% had hysterectomy done. Trained or trainees were the M.T.P. per-

formers and all M.T.P. were done in optimal asptic conditions (Table VII). Hazara *et al* (1981) reported that Dais and Quacks are leading abortionists of the day (62%) and vegetable stick is the common method of induction (64%). Rajsekharan (1973) reported that only 48% admitted to have interference by T.B.A.

TABLE VII
Methods of Termination of Pregnancy

Septic abortion	M.T.P.
93 (59.2%) were induced.	D & Evacuation 82.5%.
64 gave no history of induction though having signs of interference.	I.A.H.S. 16.5%.
Vag. douching 10, D & C 10, vag. medication 7, oral drug 11, sticks 8, catheter (rubber) 2, pests 10, injection 10, no definition method 29.	Hysterectomy 1%.
Nurse, T.B.A., teacher, Compounder, unauthorized doctor, elder sister, and L.H.V. were the inducing personnel.	Teachers (medical teachers, Gynaecologist), post-graduate students, M.T.P. trainees are the inducing personnel.
Induced at patients home, private unauthorised clinic/inducers house.	In operation theatre under strict aseptic precautions.
Most unhygienic atmosphere.	

Between 20-58% of cases require hospitalization after their abortion (whether induced or spontaneous) haemorrhage, infection and shock are the most common major complications of induced abortions and as many as 300 per 1000 women with complications of illegally abortions die (Population Report, July, 1980). 91.75% cases of S.A. in present series were having complications as compared to 2.17% cases of M.T.P. done (Table VIII). General/pelvic peritonitis, haemorrhagic/septicemic shock, uraemia, injury to genital organs, pelvic masses were the commonest complications of S. abortion. Padubidri (1980); Malhotra and Devi (1980); Hazara *et al* (1980) and Agarwal (1981) have also noted the same, though incidence of complications varies from 45-85%.

Hospital stay, cost of medicines (fluids, antibiotics and adjuvants) blood trans-

fusion needed for management of S.A. cases is many times more than needed for M.T.P. cases. Management of S.A. case carries high mortality and morbidity even though more cost and attention is paid. It is 12 times costlier than M.T.P. (Population Report)—(Table IX).

Prognosis of M.T.P. in experienced hand carries minimal possible morbidity and mortality. In present series, only 1 patient of I.A.H.S. instillation died, out of 2810 cases of M.T.P., while 14.65% cases of S.A. died in the hospital and 6 cases left the hospital in poor condition (Table X). Septic shock 14, renal failure 3, haemorrhagic shock 4, paralytic ileus and encephalitis 1, were the cause of death. Ten patients had sudden respiratory cardiac failure as a mode of death probably due to sudden pulmonary embolism. As autopsies are not done this cannot be proved definitely. S.A. in our

TABLE VIII
Complications in Either Group

Septic abortions	No. of cases	M.T.P.	No. of cases
Pulmonary oedema	22	Uterine perforation	13
Pelvic peritonitis	20	Bowel injury	7
Gen. peritonitis	20	Omental injury	6
Haemorrhagic shock	6	Cervical tears	5
Septic shock	14	Incomplete	15
Paralytic ileus	5	Mild sepsis	7
Uraemia	3	Haemorrhagic shock	7
DIC	3	Bladder injury	1
Jaundice	1	(on opening abdominal for sterilization)	
T.O. Mass	5		
Pelvic cellulitis	3		
Frozen pelvis	5		
Pelvic abscess	13		
Vag. laceration and tears	10		
Uterine perforation	1*		
Thrombophlebitis	5		
Pulmonary embolism	10		
Hemiplegia	1		
Total	143	Total	61
	(91.75%)		(2.17%)

* Hysterectomy was done.

TABLE IX
Cost of Treatment

Factors	Septic abortion	M.T.P.
Hospital stay	6 hrs.—21 days	24-48 hours (excepting hysterectomy and complication—7 days)
I.V. fluids	2-5 litre/day for 5-6 days	500-1000 cc only
Blood transfusion	96 needed 46—one unit 15—two units	Only 1 unit for 15 cases
Antibiotics	High doses of 2/3 broad spectrum 5-10 days	Only prophylactic Inj.—Penidura LA12 one except in complication, broad spectrum for 7 days
Corticosteroids	Always needed	Not often
Adjuvants	+++	±

Management of S.A. cases is 12 times costlier than M.T.P. 8 times than normal delivery.

TABLE X
Prognosis

Prognosis	Septic abortion	M.T.P.
Improved	126	2809
Discharged on request	1*	—
LAMA Good condition	3	—
Poor condition	5*	—
Deaths	22 (14.65%)	1

* Transportation of dead body is costlier and troublesome.

hospital is responsible for 9.54% of total maternal deaths (MMR being 7.28/1000 live birth). Incidence of maternal deaths caused by criminal abortion has been reported to be 15.38% (Sanyal) 43% (Padubidri 1980), 20.1% (Phillips and Ghosh 1976), 22.2% (Heera and Das, 1973) and 25% (Bhaskar Rao and Malika, 1977). M.M.R. due to septic abortion is 18 times higher than spontaneous abortion/live births. It is 537 times higher with septic abortion as compared to M.T.P. (Hazara *et al* 1981).

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