

IMPACT OF ABORTION HAZARDS ON FAMILY PLANNING PROGRAMME*

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M.T.P. Act 1971 of India is one among the most liberal in the world and has replaced one of the most rigid laws in the world on Section 312 of Penal Code of 1860. Enactment of this Act has resulted in a rapid increase in the number of legal abortions and a further increase may confidently be expected. A favourable psychological moment for inducing a woman to undergo surgical sterilization exists when she is carrying an unwanted pregnancy. An offer to "get rid" of the unwanted pregnancy is considered as a strong "incentive" to accept tubal sterilization and it looks as if an unwanted early pregnancy is the best "motivator". It is hoped that tubectomies performed at the time of abortion have a good chance of playing considerable role in our National Family Planning Programme.

However, pregnancy termination, even in the early weeks is neither simple nor as safe as the proverbial tooth extraction. The morbidity of legal abortion progressively increases as the period of pregnancy advances. Termination of pregnancy after the first trimester by any method carries considerable risk to the health and life of the woman. Tubal sterilization, like any other surgical pro-

cedure, also has got certain inherent risks. Thus, it is clear that the combined abortion and sterilization procedures will result in an increase in the overall morbidity rate which in turn may seriously affect the further progress of the Family Planning Programme. Nevertheless, the concept of pregnancy termination with concurrent tubal sterilization has taken deep roots, in the minds of many gynaecologists in India. The author also convincingly feels that the combination is inevitable.

The Aim

The principal aim of this study has been to evaluate the additional hazards of performing therapeutic abortion as a part of sterilization programme. An attempt has been made to compare the morbidity rates in the various combined abortion-sterilization procedures and to evaluate whether the combined morbidity rate is within acceptable limits.

Material and Methods

The morbidity rates in 564 legal abortions done with tubal sterilization have been compared with the morbidity rates in 1695 tubal sterilizations done without pregnancy termination. Most of the operations were performed in T.V.T. camps during intensive Family Planning Campaigns. From the patient's view point, therapeutic abortion was only an incentive for accepting tubal sterilization. Most of them were neither primarily

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motivated for tubal sterilization, nor aware of the risks of abortion, legal or illegal.

Observations

The details of the different operative procedures are shown in Table I. The

TABLE I
Nature of Operation

Procedures	No. of cases
STERILIZATION WITH M.T.P.	
*M.T.P. with T.V.T.	253
*M.T.P. with T.A.T.	201
Abdominal hysterotomy with sterilization	108
Salting out and T.A.T.	1
High Titre Pitocin and T.A.T.	1
STERILIZATION WITHOUT M.T.P.	
Puerperal Sterilization	386
T.V.T.	1309

*M.T.P. by D & C or Suction Aspiration

Abbreviations:

T.V.T.: Transvaginal tubectomy

T.A.T.: Transabdominal tubectomy

M.T.P.: Medical termination of pregnancy

necessity to carry out concurrent therapeutic abortion greatly altered the choice of sterilization procedures. We did elec-

tive abdominal sterilization in 201 patients following termination of pregnancy by dilatation and curettage or suction aspiration. This was as the result of our earlier belief that vaginal tubal sterilization should not be performed at the time of abortion. We have done abdominal hysterotomy in 108 cases. Routine elective hysterotomy could be avoided by other methods of mid-trimester abortion like salting-out, or intra-amniotic prostaglandin infusion. But it would be impossible to resort to these two-stage procedures in T.V.T. camps. Besides these two-stage procedures would warrant a prolonged hospital stay. Prostaglandins are not available with us, and salting-out procedure is not without risks. Further we have observed that many of these patients have absconded from the ward soon after pregnancy is terminated. It is not surprising because their immediate concern is only to get rid of unwanted pregnancy.

The overall morbidity rates in different groups are shown in Table II. Puerperal sterilization was found to be the safest procedure since there were no major complications. When pregnancy termination was combined with sterilization, the overall morbidity rate increased from

TABLE II
Overall Morbidity Rates

	Sterilization with M.T.P.			Sterilization without M.T.P.		
	TAT (201)	TVT (253)	Hyste- rotomy (108)	Total* (564)	P.S. (386)	T.V.T. (1309)
Overall morbidity	26.0	26.9	38.9	28.9	7.8	10.9
Major complications	4.5	15.0**	6.5	9.6	Nil	3.3
Minor complications	21.5	11.9	32.4	19.3	7.8	7.5

* Includes all cases of sterilization with M.T.P.

** Includes "failed T.V.T." (11.8%) as detailed in Table IV.

10.9% to 28.9%. Table III shows the

TABLE III
Complications Directly Related to M.T.P.

Complications	No. of cases
Perforation of uterus	14
Incomplete evacuation	4
Inability to dilate cervix	4
Laceration of cervix	14
Re-evacuation	13

complications directly related to pregnancy termination. Perforation of uterus occurred in 14 cases out of 454 cases of termination of pregnancy by vaginal procedures. This gives an incidence of 3%. In all these cases, the size of the uterus was over 8 weeks. (8-10 weeks in 8-cases, and 10-12 weeks in 6 cases). One patient was managed conservatively and in 13 cases, laparotomy was done to suture the perforation.

The causes for unsuccessful or "failed" vaginal sterilization are shown in Table IV. The incidence of unintended laparotomies was 2.7% in the T.V.T. group com-

pared to 11.8% in the M.T.P. with T.V.T. group. This high incidence was directly related to the abortion hazards like inability to dilate the cervix, perforation of uterus, incomplete evacuation, etc. These complications accounted for 9% of unintended laparotomies in M.T.P. with T.V.T. group. There was a two-fold increase in the incidence of adhesions in the non-pregnant condition. The incidence of inaccessible tubes was four times greater in the abortion-sterilization group than in the T.V.T. group.

The anaesthetic, operative, and post-operative complications are shown in Table V. In this series, we lost one patient due to cardio-vascular complication of spinal analgesia. In her, vaginal sterilization alone was done. There was no death in the abortion-sterilization group. Blood loss of over 500 ml. was observed in 2.8% of hysterotomy and M.T.P. with T.V.T. groups. Nearly 2% of patients required replacement transfusion in the above two groups. However, blood loss over 500 ml. was observed in only one

TABLE IV
Causes for Failed T.V.T.

Complications	T.V.T. (1309)	TVT + MTP (253)
COMPLICATIONS RELATED TO STERILIZATION		
Adhesions	21 (1.6%)	2 (0.79%)
Inaccessible tubes	7 (0.53%)	5 (2.0%)
Rectal injury	3	Nil
Small bowel injury	1	Nil
Suspected perforation during prophylactic D & C	1	-
Loop in broad ligament	1	-
Inability to open pouch of Douglas	1	Nil
Slipped ligature	Nil	1
Excessive bleeding from colpotomy wound	Nil	1
COMPLICATIONS RELATED TO M.T.P.		
Perforation of uterus	-	13
Incomplete evacuation	-	4
Inability to dilate cervix	-	4

TABLE V
Anaesthetic Operative and Post-operative Complications

Complications	Sterilization with M.T.P.				Sterilization without M.T.P.	
	TAT	TVT	Hyste- rotomy	Total*	P.S.	T.V.T.
	(201)	(253)	(108)	(564)	(386)	(1309)
1. ANAESTHETIC:						
Spinal shock & death	Nil	Nil	Nil	Nil	Nil	0.08
2. OPERATIVE:						
Blood loss over 500 ml.	0.5	2.8	2.8	2.0	Nil	0.08
Blood transfusion	Nil	2.0	1.9	1.2	Nil	Nil
Bladder injury	Nil	Nil	1.9	0.35	Nil	0.08
Small bowel injury	Nil	Nil	0.9	0.18	Nil	0.08
Rectal injury	Nil	Nil	Nil	Nil	Nil	0.46
3. POST OPERATIVE:						
Fever	5.5	8.0	14.8	8.3	3.6	6.6
Pelvic infection	0.5	2.39	0.9	1.38	0.26	0.93
Urinary infection	2.0	2.0	2.8	2.12	0.26	0.3
Vaginal bleeding	1.5	4.7	0.9	2.8	-	0.15
Hypotension	1.0	0.8	2.8	1.2	Nil	0.3
Peritonitis, Ileus	1.0	0.8	2.8	1.2	0.26	0.15
Wound complications	10.5	-	15.7	6.7	5.4	-
Readmissions	2.5	1.6	3.7	2.3	0.52	1.1

patient in the M.T.P. and T.A.T. group (0.5%) and she did not require transfusion. This finding is clearly indicative of the additive effects of vaginal sterilization and M.T.P. Rectal injury occurred in 6 cases at the time of vaginal sterilization. This complication was not encountered in any case of abortion with sterilization. The two-fold increase in the incidence of adhesions in the non-pregnant condition would probably explain the higher incidence of rectal injury during vaginal tubal sterilization. Absence of this complication in the abortion-sterilization group may also be explained by pregnancy changes like hyperaemia and oedema. Injuries to rectum, small bowel and bladder are mostly preventable accidents.

The complications such as post-operative fever, hypotension, vaginal bleeding,

pelvic infection, urinary infection, peritonitis, ileus, wound sepsis, etc., were slightly increased in the abortion-sterilization group. Fifteen patients who underwent T.V.T. (1.1%) and 13 patients (2.3%) who had had abortion with sterilization were readmitted. Many of them were readmitted for trivial causes like wound sepsis, mild pelvic infection, etc. Some of them had symptoms unrelated to the operative procedures.

Comments

With the introduction of M.T.P. Act 1971 of India, concurrent sterilization have become popular. Almost all gynaecologists agree with the concept of abortion with concurrent sterilization. Rajam Swami (1973), Madras has reported that the total number of sterilizations have gone up because of abortion with con-

current sterilization. Kamakshi Kabir and Sathyakumari Kannan (1973) have pointed out that the trend in pregnancy termination with tubal sterilization is sharply on the increase with simultaneous decline in both interval and puerperal sterilizations at the Government Hospital for Women and Children, Egmore, Madras. Najma Ghouse (1973), has reported that in 1973 the number of abortions with sterilizations have exceeded the number of puerperal sterilizations at Government Erskine Hospital, Madurai. Our experience is in concurrence with these reports. In our hospital, concurrent sterilization was done in 564 out of 578 legal abortions (97.5%) Reports of incidence of concurrent sterilization from some of the teaching hospitals in Tamil Nadu are shown in Table VI.

Sogolow (1971) found that vaginal tubal ligation at the time of vacuum aspiration for therapeutic abortion was not overly difficult to perform and identification of the tubes was not impaired by the pregnant uterus with its hyperaemia and oedema. He concluded that the technical difficulty, blood loss and operative time were within acceptable limits. Brody *et al*, (1971) have shown that tubal ligation at the time of abortion did not have deleterious effects on the emotional reaction. Recently Collins *et al*, (1972) have published an encouraging report. They have performed vaginal tubal ligation under local analgesia in the Out-patient Department immediately following abortion by suction evacuation in 184 cases. Many of the remaining 206 patients were discharged on the day of operation. Termi-

TABLE VI
Incidence of Concurrent Sterilizations in Tamil Nadu

Sl. No.	Authors and Hospital	Year	Incidence
1	Mohanambal and Vasantha, Kilpauk Medical College, Madras	1973	94.0%
2	Najma Ghouse, Govt. Erskine Hospital, Madurai	1972 1973	96.2% 82.5%
3	Rajam Swami, Govt. Hospital for Women and Children, Madras	1973	84.3%
4	Present Study (Tirunelveli Medical College Hospital, Tirunelveli)	1974	97.5%

Earlier it was believed that tubal sterilization and therapeutic abortion should not be performed at the same time because of high complication rate and technical difficulties inherent in the sterilization procedures in the presence of pelvic changes of early pregnancy. Technical difficulty and higher morbidity have been reported by many authors. (Boysen and Mc Rao, 1949; Allen, 1953; and Stewart and Goldstein, 1972). Contrary to this,

nation of pregnancy by vacuum aspiration and immediate laparoscopic sterilization as one-stage abortion-sterilization procedure has been reported by Steptoe and Imran (1969).

As pointed out earlier, we have performed therapeutic abortion in T.V.T. camps during intensive Family Planning Campaigns. Curiously women consider sterilization as a major procedure compared to many other surgical procedures

like therapeutic abortion, hysterotomy, caesarean delivery, etc. Often they are under the misconception that therapeutic abortion is just an incidental trivial procedure. As a result, she blames the sterilization procedure for all ill-effects that follow the combined abortion—sterilization procedures. This will give room for false propaganda and a distorted image of the Family Planning Programme among the public.

Summary

1. The choice of sterilization procedure has been greatly altered by the necessity to perform concurrent abortion. The high complication rates found in 108 cases of abdominal hysterotomy have left some deleterious impact on the tubectomy programme. However, for reasons stated earlier, we are unable to dispense with this procedure, especially during intensive Family Planning Campaigns.

2. The hazards of abortion are additive to the hazards of sterilization.

3. Pregnancy termination introduces newer complications such as perforation of uterus, re-evacuation, etc.

4. The duration of anaesthesia and surgery is increased resulting in a proportionate increase in the anaesthetic and post-operative complications.

Conclusions

The incidence of complications described, and the severity of some of them are disquieting. The results give cause for concern. Whenever these two procedures are combined, utmost care should be taken to prevent any deleterious impact upon the National Family Planning Programme. For this, the hazards of legal abortion should be fully explained to the patient pre-operatively. Mishaps may be

kept to a minimum when such combined abortion-sterilization operations are performed by skilled gynaecologists who are well aware of the dangers. After all the operation is only as safe as the surgeon who performs it.

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