

TRANS-VAGINAL STERILISATIONS

(A Survey Of 588 Cases)

by

T. SAROJINI,* M.D., D.G.O.

Vaginal tubal sterilisation was favoured in the past mostly while surgery was contemplated for genital prolapse. For purposes of sterilisation per se, it did not find much favour because of technical difficulty and of the popularity of the abdominal method in the immediate post partum period which appeared to be simple and advantageous as it avoided a separate hospitalization.

Even though vaginal tubal sterilisation was described by Von Graff as early as in 1930, this procedure was being increasingly adopted only in the past decade. However with enormously increasing population and so the need to improve the figures of sterilisation, we have to offer much simpler techniques of tubectomy with a short stay in the hospital to convince the masses.

Apart from the laparoscopic procedures of occluding the fallopian tubes, which are claimed to be advantageous and safe if the surgeon is well acquainted with technique, trans-vaginal tubectomy would be as safe without incurring much expenditure towards the equipment.

Materials and Methods

A total of 588 trans-vaginal tubectomies were done in a period of ten months from November, 1975 to August, 1976, in the post partum programme of Kurnool General Hospital.

*Addl. Professor of Obstetrics and Gynaecology, Kurnool Medical College, Kurnool.

Accepted for publication on 23-1-80.

Three major groups were identified to assess the complication rate, among the total of 588 cases.

Group I: In this group, were included 96 women who were operated in a camp conducted at Rural Health Centre, attached to the medical college. Pre-operative examination and selection of the women as to their fitness or otherwise was done personally, but the facilities for doing operation like good operation table lighting arrangements, adequate linen and flowing water for scrubbing etc., were far from adequate.

Group II: This group consisted of 400 women who attended the post partum outpatient examined by the post graduate students and the assistant surgeon sufficiently trained. In both the above groups the operations were performed either by the author or the junior doctors under author's close supervision.

Group III: This consisted of 92 women who were examined and operated by my junior colleagues.

In 213 cases Medical Terminations were done concomitantly, and were delineated to assess the failure rates and complication.

Techniques of Operation

Cases were operated under spinal anaesthesia excepting 14 cases, 4 of them were done under local and the rest were performed under general anaesthesia.

Keeping the patient in a trendlenberg portion, a small transverse incision of 2

to 3 mm was made in the posterior fornix which was extended latter after dissecting the vaginal mucosa from the peritoneum underneath just enough to keep a Sims vaginal speculum. Peritoneum of the pouch of Douglas also was incised transversely. Fallopian tube or the ovary first was identified retracting posterolaterally with the speculum and if necessary a Devers retractor also was used anteriorly in few.

Tubectomy was done by modified Pomeroy's Technique. Mesosalphinx also was incised separating the two ligated stumps of the tube. Peritoneum was closed with a continuous stitch followed by suturing of the vaginal mucosa with catgut.

Inj. Streptopenicillin was given prophylactically to all of the patients and an injection of long acting penicillin on the last day if they were sent home quite early. The time taken for the operation varied from 5 to 30 minutes. The simplest case was in 5 minutes while a technically difficult one took 30 minutes.

Observations

In 213 women, termination of pregnancy by vacuum aspiration was done, the duration of pregnancy was varying between 6 to 14 weeks, the later being, in 4 cases and maximum number of cases were between 8 to 10 weeks of gestation. Termination was done by E.A.S. in 8 cases.

Upto 8 weeks	8 to 12 weeks	14 weeks	Following saline abortions
92	109	4	8

Age: Maximum patients were in the range of 26 to 30 years.

Parity: Parity varied from 1 to 9 with the mean of 4.

95% of the women were anaemic with 10 G%, or less of haemoglobin. Gynaecological pathology encountered during operation was small fibromyomas in 2, cystic and enlarged ovaries in 12 flimsy adhesions in the pouch of Douglas in 5, chronic tubal infection in 3 and descent of the vagina and uterus of moderate degree in 22 women.

In the first series of 96 operated in a camp there was no technical difficulty in any case. Three patients developed post operative pyrexia. One had slight oozing from the vaginal wound. Two had fever post operatively. Hospital stay for all the patients in this group was 72 hours. One women was admitted with a chronic pelvic inflammatory disease eight months after operation.

In the second series of cases operated in the institution there was difficulty in approaching one or both the fallopian tubes in 6 cases resorting to abdominal tubectomy in 2 cases. In 8 patients there was excessive bleeding during operation 1 of them required a blood transfusion due to reactionary haemorrhage from the wound on the same day.

One patient developed pelvic abscess. Except for 1 patient who stayed for 24 hours all others were sent home within 48 to 72 hours.

In the third group of patients there were 6 cases where there was technical difficulty and 4 cases vaginal procedure could not be done. There was a rectal injury in this group which was repaired and tubectomy was done abdominally. In 5 patients there was pyrexia from 3 to 5 days. Two patients developed pelvic infection and 1 of them was readmitted with intestinal obstruction, who was operated and discharged well. In 8 patients there was profuse bleeding during operation (Table I).

Complications Observed in the Vaginal Sterilisations

Complication	1st series 96 cases	2nd series 400 cases	3rd series 92 cases
Excessive bleeding during operation	Nil	8 (2%)	8 (8%)
Technical difficulty	Nil	6 (1.5%)	6 (6%)
Failure to perform	Nil	2 (.5%)	4 (4%)
Reactionary haemorrhage from the vaginal wound	1 (1%)	1 (.25%)	Nil
Rectal Injury	0	0	1 (1%)
Pelvic peritonitis	1	0	0
Pelvic abscess	0	1 (.25%)	2 (2%)
Post operative pyrexia	2 (2%)	10 (2.5%)	5 (5%)
Spinal headache requiring Post Operative stay or readmission	2 (2%)	12 (3%)	4 (4%)

75% of patients complained of mild to severe headache due to spinal anaesthesia—18 of them were readmitted for the treatment of the same condition.

All the patients who had excessive bleeding were those who had a concomitant termination of pregnancy.

Complications Observed in These 3 Years of Follow-up by Correspondence and Personal Contact

Vague abdominal pain	..	3
Dyspareunia	..	2
Intrauterine pregnancy	..	1
Tubal pregnancy	..	1
Patients who regretted for having undergone operation	..	1

Discussion

In view of high neonatal death rate in the developing countries like ours, the foetal survival cannot be guaranteed if tubectomy is done in the immediate post partum period. As rural women constitute a major fraction of our population who are involved in agricultural and other hard labour as a means of their livelihood these women can be convinced for vaginal

procedure because of the following advantages.

1. Rapid post operative recovery.
2. Short period of hospitalization as well as reduced need for nursing care.
3. Post operative pain is significantly reduced.
4. Absence of an abdominal scar is cosmetic in the affluent class of women, equally encouraging psychologically, to the poorer class to resume their routine work early.

Obviously the procedure cannot be performed in the immediate post partum period. However, if the woman so wishes to be operated a week after it will not be difficult to perform the operation as there is laxity of pelvic structures; one of the patients in the present series was operated without difficulty on the fifth day after delivery as she insisted upon the vaginal procedure.

Despite the relative simplicity and its many advantages the trans-vaginal tubectomy is contraindicated in patients who have.

1. Adnexial pathology.
2. An obliterated pouch of Douglas.
3. A long and narrow vagina.
4. A fixed—anteverted uterus.

An enlarged uterus of pregnancy or of puerperium is not a contraindication.

Morbidity and failure rates of 4.1% and 0.33% respectively are noticed in our series due to vaginal sterilisation.

To minimise the complications, the operation should be performed by gynaecologists experienced in the technique. Equally important is the selection of the patients for this procedure. Failure and complications are bound to be high in the inexperienced hands. In view of an occasional painful scar and adhesions in the pouch of Douglas due to infection, resulting in dyspareunia, the tubectomy by vaginal route is discouraged by some Gynaecologists. Surprisingly this complication is not that common. While there was apprehension in the low income groups about the imaginary complications, there were more than few women of educated and higher socio-economic

groups who insisted on this vaginal procedure for convenience.

Summary and Conclusion

Trans-vaginal tubectomy is simpler and the safest procedure especially for women of low income groups who are engaged in hard work. To minimise the complications and failure rate, experienced gynaecologist should not only operate, but also do the pre-operative selection of cases. Bleeding is invariably excessive, if medical termination is done concomitantly. Because of failure to obtain surgical asepsis in the vagina, there is greater possibility of pelvic or wound sepsis compared to abdominal tubectomy. General anaesthesia is preferable in view of good number of patients suffering from headache following spinal anaesthesia.

Acknowledgement

My thanks are due to all the patients who came forward willingly to undergo the operation and came for check ups and responded for correspondence.