

## A SIMPLE METHOD OF VAGINAL STERILIZATION

by

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Sterilization operations in the female have a well recognized place in our National Family Planning Programme but as the operation is usually performed by the abdominal route in postpartum patients it requires an additional period of hospitalization of about one week. The shortage of hospital beds all over the country is too well known to require emphasis and it is because of this that workers in the family planning field have tended to advocate vasectomy rather than tubectomy as a method of mass sterilization.

Ligation of the tubes per vaginam during operations for prolapse is a standard procedure with which all gynaecological surgeons are familiar but few perform the operation by this route when its sole object is the control of fertility.

An operation designated "Vaginal Interposition of the Tubes" was described by Purandare in 1945 but the technique was too complicated for the operation to be adopted on a mass scale. Purandare has since modified his technique and slides of the modified operation were demonstrated at the 4th Asian Congress of Obstetrics and Gynaecology at Singapore in November 1968.

Vaginal tubal ligation with the aid of a culdoscope has also been described by Clyman (1968). With a little experiment-

ing I soon discovered that the operation could be easily performed without the culdoscope by a slight modification in the technique described by Clyman and since then the operation has been performed in my Unit in Queen Mary's Hospital Lucknow by myself and my Lecturer Dr. Chandravati in 55 cases without any complications in 54. Our first case returned after a year with an ectopic gestation but there have been no mishaps in the subsequent cases.

Proper selection of cases is important and only cases with a clear pelvis should be selected for this technique. If erosion or vaginitis are present they should be treated prior to surgery. The operation is best done just after a menstrual period is over. In any case it should not be done later than the mid period to avoid an early undiagnosed pregnancy.

The operation is done in the knee-chest position under local anaesthesia. Premedication consists of intramuscular injection of Pethidine 50 mgm along with Phenergan 25 mgm and Largactil 25 mgm 1/2 hour prior to the time of operation. Just before being wheeled into the theatre the patient is given another 50 mgm injection of Pethidine intravenously and then placed in the knee-chest position with the thighs perpendicular and knees separated. The shoulders are supported by shoulder rests to prevent the patient from slipping upwards. (Fig. 1). Most patients have no difficulty in maintaining this position and lie very quietly throughout the

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operation which can be performed in 10 to 15 minutes as one gets familiar with the technique.

A 10/cc syringe is then filled with 1% xylocaine solution. A Sim's speculum is used to retract the posterior vaginal wall and the posterior lip of the cervix is steadied with a vulsellum. Two cubic centimeters of xylocaine are injected paracervically on either side using a tonsillar needle and 2/cc are injected in the midline at the point of maximum concavity of the posterior fornix as described by Clyman (1963).

Puncture of the posterior fornix is done through this point using a trocar with a small diameter and when the trocar is removed a sharp hiss is audible as air rushes into the peritoneal cavity. The tip of a larger trocar is then placed over the small colpotomy opening and the posterior of fornix re-punctured. The opening is further enlarged using a haemostatic forceps.

The posterior surface of the uterus is now grasped by a non-traumatic forceps (Mesosalpinx clamp of Clyman) and the fundal area of the uterus is brought into view in the colpotomy opening. This step is important for unless the fundus is brought into view one cannot perform the operation without the culdoscope. The ovaries and tubes are easily identifiable once this is done. Usually it is the ovary which first comes into view and it is held with a sponge forceps and delivered into the vagina. (Figure 2). Contrary to what one has been taught no discomfort is caused to the patient when this is done even though she is fully conscious. It is easy to locate the tube once the ovary has been delivered in this manner and as soon as the tube is identified it is grasped with a sponge forceps and the forceps holding the ovary is removed. The tube is then brought into

the vagina and a Pomeroy ligation performed. (Figure 4). The procedure is repeated on the opposite side.

A single figure of eight suture is now passed to close the colpotomy opening, but before it is tied the large cannula is re-introduced through the colpotomy opening and the patient is made to lie flat on her abdomen to let out the air which had entered the peritoneal cavity. This is achieved by moving the cannula up and down and aided by pressure of the operator's hand on the patient's abdomen. The posterior vaginal wall is then retracted by a Sim's speculum, the cannula is removed and the stitch tied under direct vision. The vagina is swabbed clean and the patient is given a single injection of a long acting penicillin (Penidure L. A. 12) after testing for penicillin sensitivity.

A tablet of novalgin is usually all that is required to relieve postoperative discomfort and the patient is sent home after 48 hours.

#### *Summary*

A modification of the Clyman technique for tubal ligation which permits the performance of the operation without the use of a culdoscope is described. The wider use of this method should go a long way in popularizing the operation of tubectomy for it can be done with the minimum of discomfort to the patient and with the minimum period of hospitalization.

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References

- 1. Clyman, M. J.: *Obst. & Gynec.*, 21: 343, 1963.
- 2. Clyman, M. J.: *Obst. & Gynec.*, 32: 840, 1969.
- 3. Narvekar, M. R.: *J. Obst. & Gynec. India*, 20: 805-6, 1970.
- 4. Purandare, B. N.: *Asian Federation of Obst. & Gynec.*, 1: 83, 1970.

See Figs. on Art Paper IV

A modification of the Clyman technique for tubal ligation which permits the performance of the operation without the use of a catheter is described. The wider use of this method should go a long way in popularizing the operation of tubal ligation for it can be done with the minimum of discomfort to the patient and with the minimum amount of postoperative discomfort.

A tablet of novarsin is usually all that is required to relieve postoperative discomfort and the patient is sent home after 48 hours.

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