

FEMALE STERILISATION BY LAPAROSCOPE

by

JYOTSNA PAREKH, M.B.B.S., D.R.C.O.G.

Laparoscopy was performed on 451 cases within 30 months; 50 cases were done for diagnostic purposes (will not be discussed in this paper). Purpureal sterilisation was performed in 162 cases, remaining 239 cases had intrapartum sterilisation. All cases were done under general anaesthesia. All cases were done by double puncture method. 350 cases came for follow up check up after one month. None had any complications. 51 cases were defaulted.

Only in the last decade have new technologies introduced that promise to make female sterilisation a short, out patient procedure. Culdoscopy is one procedure (will not be discussed here). Laparoscopic sterilisation is done as an out patient procedure under local or general anaesthesia.

Laparoscopy is by definition an endoscopic examination of the interior of the peritoneal cavity by means of a laparoscope inserted through the anterior abdominal wall. Also known as peritonioscopy and celioscopy.

Laparoscopic sterilisation was proposed by Anderson in 1937 and described by Power and Barnes at the University of Michigan in 1941, Palmer from Paris in 1947 and Step'oe from Britain, Frangenheim in Germany reported with details and enthusiasm on the expanded possibilities. In 1960's the development of 'cold' Fiberoptic light sources gave more scope for laparoscopy.

Material and Methods

During 30 months (2½ years), 451 cases were subjected to laparoscopy. Fifty cases were done for diagnostic purposes. In 401 cases Laparoscopic sterilisation was performed. In 162 cases purpureal laparoscopic sterilisation was performed on the fourth, fifth, or sixth day. Patients were discharged 12 to 36 hours after the operation. Six patients flew to Bombay after 24 hours of the laparoscopic sterilisation. One patient went to Bombay by train after 24 hours of operation, and one patient went to Cuttack after 24 hours of the operation. They did not have any complication.

These cases were done mainly in Dalhousie Nursing Home, Calcutta (a private Nursing home), in Woodlands Nursing Home and Belle Vue Clinic & Nursing Home, (private Nursing Homes), and Rehmatbai Vadnagarwalla Hospital, Calcutta.

Procedures

Patients were admitted night before the operation, and an enema was given. All cases were done under general anaesthesia. (Few cases were admitted on the same day of the operation and enema was given in the morning).

Anaesthesia

Preanaesthetic medication of 75 mg. Pethedine and 1/100 gr. A'ropine were given ½ hour before the operation. Patient was put in lithotomy position and was catheterised. Cervix was held with

volsellum which was fixed with insufflation cannula to move the uterus during operation.

Technique

A small $\frac{1}{4}$ inch incision under the umbilicus was performed.

Pneumoperitoneum

Sides of the abdominal wall were pinched and pulled forward by surgeon's and assistant's left hands. With the right hand surgeon introduces Verre's trocar and cannula into the peritoneal cavity, and after verifying that the needle was in the peritoneal cavity pneumoperitoneum was performed with carbon dioxide running at the rate of 0.5 lit to 1 lit per minute, at 20 mm of Hg. pressure. A total of 2 to 3 liters of CO₂ is required for a good pneumoperitoneum.

Laparoscope trocar and cannula was introduced through the incision at an angle of 45°. A typical hollow booming sound is obtained if the pneumoperitoneum is properly performed. Laparoscope is introduced through the cannula after removing the trochar. Fiberoptic light and CO₂ gas connections were made. After trans-illuminating the right lower quadrant of the abdominal wall to avoid injury to epigastric blood vessels, trocar and cannula was introduced in the peritoneal cavity through a small incision and Palmer's biopsy forceps was passed through the cannula, which was used to hold the tubes free and high in the atmosphere of CO₂ gas. Coagulation of the tubes was performed twice and tubes divided in the middle with the Palmer's biopsy forceps. Both the incisions are closed by one Michel's clip or by a single black silk stitch on either side, after thoroughly evacuating the gas from the peritoneal cavity.

Postoperative Care

Pulse and blood pressure were checked every 2 hours, and after 4 hours patients were allowed to sit up. Light diet was given the same day and normal diet was resumed from the next day.

Discharge

Clips or stiches were removed after 24 hours and the patients were discharged.

Follow Up

All the patients were told to come for check up after one month. Three hundred and fifty cases attended after one month. None of them had any complication.

Complications

Complications like bowel damage, skin burn, pelvic haematoma have been described, but in this series none of the complications occurred.

Acknowledgements

I would like to thank Dr. Gour Roy, my Anaesthetist for always providing me with excellent surgical anaesthesia; and Dr. J. Bharucha, who has helped me out for starting this procedure in Calcutta.

References

1. Alexander, G. S., Noe, F. E. and Brown, E. M.: *Anaesthesia and Analgesia*. 48: 14, 1969.
2. Anderson, E. T.: *Am. J. of Surgery*. 35: 36, 1937.
3. Fraryehheim, H.: *Gubeitschife & Franenheckld*. 31: 622, 1971.
4. Palmer, R. E.: *Bull. Fed. Societe. Nationale de Gynaecology et d'Obstetric*. 14: 298, 1962.
5. Power, F. H. and Barnes, A. C.: *Am. J. Obst. & Gynec*. 41: 1038, 1941.
6. Jordan, J. A., Edwards, R. Logan, Pearson, J. and Maskery, P. J. K.: *J. Obst. & Gynec. Brit. C'wlth*. 78: 460, 1971.
7. Steptoe, P. C.: *Laparoscopy in Gynaecology*. Ed. 1. Livingstone, Edinburgh. 1967.