LAPAROSCOPIC STERILIZATION — ITS MERITS AND DEMERITS

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SUMMARY

It is the study of 299 patients who had laparoscopic tubal ligation and their follow up for four months at Gynae "A" unit Lady Reading Hospital Peshawar. Almost all the patients had successful outcome and very rare complications.

INTRODUCTION

Laparoscopy is an endoscopic technique which provides transperitoneal visualization of the abdominal and pelvic structures. It allows the diagnosis of gynaecological disorder and pelvic surgery without laparotomy. It is also known as peritoneo-scopy. The surgical procedures carried out through a laparoscope include tubal ligation, lysis of adhesions, aspiration of cysts, salpingostomy and salpingectomy for ectopic pregnancy, removal of foreign body, myomectomy and even hysterectomy. Laser therapy and diathermy for endometriosis all can be carried out through a laparoscope.

MATERIAL AND METHODS

This is a one year retrospective study of the merits and demerits of laparoscopic sterilization and its comparison with other methods of contraception. After identification of the pelvic structure and specially the fallopian tubes which are identified from their fimbrial ends and distinguished from the round ligament. Fallope ring is applied to the fallopian tube near to the ampulla. Fallopian tube is released and application of ring is confirmed by direct vision. The same procedure is repeated on the other side. After both fallopian tubes are ligated, laparoscope is removed and as much gas as possible is drained out through the cannula. Which is then removed and single skin stitch is given.

Laparoscopic procedure is done after patients void urine but if full bladder is found. She is catheterized, as full bladder hinders the procedure. Laparoscopy is ideally done under general anaesthesia but it is not available at the family planning clinic here. So it is usually performed under intravenous analgesia, sedation and local anaesthesia. Before the laparoscope procedure, full details are given to the couple about the procedure, its complications, other methods of contraception available and failure rates. An informed consent of the husband is taken. More important is that an experienced surgeon does the procedure as the number and nature of complications are less and success rates higher, the more experience the surgeon is.[4]

Laparoscopy is a day care procedure. Patient is allowed home after a few hours of observation patients come for follow up and for removal of stitch on day 7 and again to Gynae outpatient department if she has any problems or complication where record is kept.

TABLE – I

Method of Contraception	Number	Percentage
No Method	24	8%
Coitus Interruptus	72	24.2%
Condoms	20	10%
Oral Contraceptives	35	12.2%
Rhythm Method	43	14.4%
IUCD	25	8.2%
Injectable Contraceptives	55	19.2%
Breast Feeding	5	1.5%
Norplant	10	3%

RESULTS

229 patients had tubal ligation laparoscopically at Gynae "A" unit, Lady Reading Hospital Peshawar from January 1st 1995 to August 31st 1995. Of the 299 patients 68% were grand multipare i.e. > 5 children while 18% multipara i.e. 2-5 children/couple., 67.5% were uneducated while only 2.5% had education up to middle or metric level. The rest were only educated till primary level.

Mode of contraception used before the tubal ligation procedure is given in a table form (Table -I).

The complications which occurred during the procedure is given in a tabulated form.

TABLE – II

Complications	Number	Percentage
Uterine Perforation	1	0.3%
Bleeding from Mesosalpinx	2	0.6%
Bleeding from Abdominal Wound	20	7.5%
Shock due to pain	2	0.6%
Bowel Injury	1	0.3%

The complication depend upon the experience of the surgeon and relaxation of the patient, as the procedure is not done under general anaesthetic. The rate of complications recorded is surprisingly very low as it is a very painful procedure and patient is very tense and apprehensive. Local anaesthetic is surely not sufficient for the procedure and patient is not relaxed. Uterine perforation needs indoor observation and if internal bleeding is suspected, patient needs laparotomy. Here the patients with uterine perforation were allowed home after few hours of observations while patient with bowel injury definitely had laparotomy.

Bleeding from the wound was not much and was secured with tight bandage only and patient were allowed home after a few hours of observation.

TABLE – III

Complications	Number	Percentage
Abdominal Pain	19	6%
Chest and Shoulder Pain	10	3%
Uterine Cramps	20	7%
Abdominal Distension	20	7%
Nausea, Vomiting	20	7%
Wound Infection	20	7%

Patients were followed after the procedure and late complications were recorded. The following number of patients had complications within one week of the procedure.

It is important to note that there was no mortality[2] Abnormal uterine bleeding was recorded in patients but it was only for 1-2 cycles and patients had regular cycles after wards without any treatment.[5]

None of the patients came back for recanalization procedure within the four months of the procedure. It needs longer follow up. During the same period other

TABLE – IV

Complications	Number	Percent-age
Pregnancy	0	0%
Abdominal Uterine Bleeding	7	2%
Ectopic Pregnancy	0	0%
Kelloid Formation of Scar	2	0.6%
Incisional Hernia	0	0%

methods of contraction used in the unit were recorded. They are as under: Jan-Aug 1995.

Norplants	37
Minilaparotomy	12
IUCD	60
Injectable	13
Condom	30 (Packets)

It shows that tubal ligation is more popular than the other methods of contraception as according to the patients it is a permanent method of contraception. Patients do not have to pay anything for it rather they are paid %s: 50?- for it. Complications are usually for a short period of time though deep down not being able to produce more children may result in many emotional problems. The more apparent problems are that reversal which if desired is a difficult procedure, with very small success rates and if the procedure of sterilization fails. Or if ring slips pregnancy can occur, quoted figures are 0.1%. Ectopic pregnancy can occur in 1 in 200 cases. Procedure is definitely painful and should be done under general anaesthesia in patients who are fit for general anaesthetics.

DISCUSSION

Birth control methods are designed to prevent conception and are called contraception. The most effective contraception is sterilization. In the male the procedure is called vasectomy that is interruption of vas deferens by surgical ligation. On the female it is called tubal ligation. That is interruption of fallopian tubes by surgical ligation. The Procedure is not necessarily done through a laparoscope. It can be done at the time of Caesarean Section or though a planned minilaparatomy procedure post natally. There are many procedures for tubal interruption. They are:-

- Ligation of the tube after crushing its continuity (Madlener)
- Partial excision and ligation of the two served ends in a common ligature (Pomeroy)
- Partial excision and separate ligation of the ends with continuity.
- Diathermy coagulation and division.
- Clip occlusion usually without division.
- Plastic ring occlusion.
- Total or partial salpingectomy (Bilateral)
- Hysterectomy for any reason itself is a procedure resulting in a complete sterilization.

Diathermy, application of clips or rings and even salpingectomy can be carried out through a laparoscope. Though the most popular care clips and rings. Clips are better than the rings as the length of the tube destroyed is less and if reanastomosis is required at any time. A length of the tube available may be enough for the procedure but unfortunately clips are not available with us. Tubal occlusion can be done hysteroscopically[3] but is not favoured.

Laparoscopic sterilization is a relatively simple procedure though it requires experienced surgeon to minimize the complication and to increase the success rates. It does not require hospitalization. Morbidity and mortality rates minimal. End by the couple as it is a permanent method and it is efficient. There is no need to renew supplies or to check or changes the device or remember

to use it. Women who stop taking the pill ate the age of 35 have approximately ten years of reproductive capability remaining and sterilization is the only contraceptive measure which avoid the chance of conception. So it is the method of choice for a woman over the age of 30 years who has completed her family but because of the irreversibility of the procedure it seems wise to avoid such a final method in a young women except for maternal health problems or engenic consideration.

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