ORIGINAL ARTICLE

SAFETY OF LAPRASCOPIC TUBAL LIGATION IN PATIENTS WITH PREVIOUS CASAREAN SECTION

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ABSTRACT

Aims: To evaluate the technique of laparoscopic tubal sterilization in patients with previous caesarean section with respect to age, parity, technical difficulty, operative time, intra-postoperative comfort and its suitability for mass sterilization camps.

Methods: A prospective study of laparoscopic tubal ligation done at teaching Medical College and in camp from August 2010 to August 2011. Total 70 cases were operated under intramuscular sedation (Pentazocine and Promethazine) and local anesthesia (inj xylocaine). Operations were performed in interval and post-abortal cases. Data were analyzed with respect to age, parity, technical difficulty, operative time, intra/postoperative complication and postoperative comfort.

Result: Most of the patients were in age group of 20-30 indicating long post-TL period. Most of the patients were having two children. Adhesions were present in 15.7% and difficulties in getting tube were present in 5.7% and TL was not possible in one (1.4%) patient. Most of the patients were comfortable in postoperative period within 24 hours.

Conclusion: Laparoscopic tubal ligation is possible in previous caeserean with minimal risk and devoid of complication. It also requires further study and follow up to comment on the failure rates.

Key words: Lap TL, Casarean Section, Adhesion, Pffanenstial Scar

INTRODUCTION

Female sterilization is a surgical procedure used to end woman's ability to become pregnant. This procedure involves ligation with or without resection or blocking of both the fallopian tubes so that egg and sperm can not meet.

Amongst the major health problems in India, population explosion ranks first. In developing countries over 70% of all sterilization is done in women.[1] But the popularity and success of TL program largely depends upon the success of its reversal. Female sterilization is the most widely used contraceptive in India. Female sterilization by laparoscopic method came up in the National Family Planning programs in India.[2,3] The most common surgery of reproductive age group is caesearean section and the patients included in study are multigravida; so patients with previous one or more caesearean sections are included in this study. Due to previous surgery, the intra-abdominal mileu can be challenging during laprascopy.[4-8] We have specifically studied this subset and evaluated the safety of Lap TL without much morbidity.

METHODOLOGY

Patients having one or more LSCS and desiring for lap TL were selected. All patients were in the first ten days of menstrual cycle. Patients were selected under national tubal ligation programme. They all met basic criteria of haemoglobin >8 gm/dl and urine sugar absent. HIV testing and urine pregnancy test were also done to rue out pregnancy.They had undergone procedure under local anesthesia and intramuscular sedation. We followed a routine of giving Inj. Fortwin I/M (Pentazoine 20mg), Inj Phenergan I/M (Promethazine 50mg) and Inj Atropine I/M (1mg); Inj Tetanus toxoid half an hour before the procedure was given in our centre.

Patients were taken to Operation Theater and given 45 degree trendlenberg position. Painting and draping was done. 3cc Xylocaine 2% was injected below umbilicus; small infra-umbilicus skin incision was given with 11 no knife. Trocar canula with valve open was introduced in direction of pelvis without pneumoperitonium. Hissing sound of air on lifting of abdomen confirmed that cannula is intraperitoneal. Laprogator with ring applicator was introduced and

after confirming the intra peritoneum, pneumoperitonium was created with atmospheric air. Fallopian Tubes were identified and confirmed and ring were applied over isthmic ampullary junction region in avascular area. If omental adhesions were present then window made in avascular area and then tubes were reached. In some cases vaginal manipulation of uterus was required.

All patients were given discharge on the same day after 5 hours of procedure with oral antibiotic. Stitch removal was done on the seventh day.

RESULTS

Factors of age, parity, number of previous cesarean section, type of scar on abdomen, stay in hospital, and intra and postoperative complications were analyzed. Age ranged from 20 to 35 years and maximum patients (80%) were in 25-29 years age group.

Table 1: Age and Parity wise distribution of Participants

Age/Parity	P2	P3	Total
20-24	18 (30)	1 (10)	19 (27.14)
25-29	32 (53.33)	5 (50)	37 (52.86)
30-34	8 (13.33)	4 (40)	12 (17.14)
>35	2 (3.33)	0 (0)	2 (2.86)
Total	60 (100)	10 (100)	70 (100)

Sixty patients underwent Lap TL after two deliveries. 54 of them had previous two LSCS. The rest 10 patients underwent LAP TL after three deliveries. Amongst these, 2 had previous 3 LSCS, 6 had previous two LSCS and 2 had one LSCS. 54 patients having two LSCS and 14 patients having one LSCS and two patients having three LSCS. 60 patients had pfannestial skin incision and 10 patients had vertical incisions.Local anesthesia with intramuscular sedation was used in all 70 patients.

Table 2: Relation between Parity, Number of LSCS and Type of Scar

Type of Scar	One LSCS		Two LSCS		Three LSCS	
	Vertical	Pffanenstial	Vertical	Pffanenstial	Vertical	Pffanenstial
P2	2	10	7	41	0	0
P3	0	2	1	5	0	2
Total		14		54		2

Intra-operative complication: 6 patients out of 20 patients having vertical scar had adhesion over scar line and two patients had severe adhesion of omentum in which window made in avascular area and then reached to the tube. 5 patients out of 50 patients having pfannestial scar had adhesion out of them one had severe adhesion so require window in omentum and TL was done and in one patient both tubes were totally covered with omentum and so TL was not possible.

Table 3: Complications with Type of scar

	Adhesion (%)	Difficulty in Getting Tube (%)	Tl Not Possible (%)
Vertical Scar	6 (8.5)	2 (2.85)	-
Pffanenstial Scar	5 (7.0)	2 (2.85)	1 (1.4)
Total	11 (15.7)	4 (5.7)	1 (1.4)

Postoperative complication: No obvious postoperative complications were reported.

Stay in hospital: Average stay in hospital was six hours and all patients were discharged with oral antibiotic and analgesic. Stitch removal was done on the seventh day. There were no wound related problems.

DISCUSSION

In our study most of the patients undergoingTL were in age group of 20-30 (80%) and 60 patients (86%) underwent TL after having two delivery while 10 patients (14%) underwent TL after three delivery. Out of 70 patients 14 (20%) patients had one lscs 54 (77%) had two LSCS and 2 (3%) had three LSCS. 50 (71%) had pffanestial scar and 20 (29%) had vertical scar.

CONCLUSION:

Technique of lap TL in previous LSCS was found to be easy to perform and with mild risk and devoid of complication of open TL[4,8] Laparoscopy provides an opportunity to inspect the abdominal and pelvic organs, requires small incisions, is immediately effective, and enables a rapid return to full activity. [5,6,7] Caesarean section methods have refined leading to wider exposure even at primary level. There are fewer intraoperative and long term complications reported. Meticulous training and widespread availability of laprasopy units have made TL in such subsets a preferred method in all the centres handling such patients.[9,10] Practical aspects must be taken into account before implementing endoscopic techniques in settings with limited resources.[8,11,12]. Tubal occlusion by laparoscopy is a safe and effective method of permanent contraception.[1,5]

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