

**ORIGINAL RESEARCH**

# A study of incidental finding during laparoscopic tubal ligation over past 5 years

<sup>1</sup>Dr. Jayant Patel, <sup>2</sup>Dr. Vidja Viraj, <sup>3</sup>Dr. Saloni Sharma

<sup>1</sup>Professor and Head of Unit in Department of Obstetrics and Gynecology, Civil Hospital Jetpur, Rajkot, Gujarat, India

<sup>2,3</sup>2<sup>nd</sup> Year Resident, Department of Obstetrics and Gynecology, Civil Hospital Jetpur, Rajkot, Gujarat, India

**Corresponding Author**

Dr. Vidja Viraj

2<sup>nd</sup> Year Resident, Department of Obstetrics and Gynecology, Civil Hospital Jetpur, Rajkot, Gujarat, India

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**ABSTRACT**

**Introduction:** laparoscopic sterilization is one of the most reliable and safe method of contraception in our country. It is widely used because of its less failure rate, side effect or complication. We have operated 9360 women over past 5 years at Civil Hospital Jetpur, Rajkot. We had found incidental finding like congenital anomalies, PID, uterine prolapse, endometriosis, fibroid, misplaced IUCD, unruptured ectopic pregnancy. **Material and Method:** a retrospective study was carried out at tertiary care centre in west coastal region of INDIA over a last 5 years. During the procedure some incidental finding was found like misplaced IUCD, unruptured ectopic pregnancy, uterine prolapse, PID, endometriosis and fibroid. **Result:** 9360 laparoscopic tubal ligation were carried out at tertiary care centre. we noticed around 106 patients having congenital anomalies, 91 having PID, 34 having uterine prolapse, 24 having endometriosis, 17, 1, 2 having fibroid, misplaced IUCD and unruptured ectopic pregnancy respectively. **Conclusion:** Incidental finding during any laparoscopic surgery are to be expected and surgeon should well experienced, trained and aware about anatomy to deal with it. Thus laparoscopic tubal sterilization is best permanent method as contraception to control birth and also diagnostic as well as therapeutic tool for those condition which are likely to be otherwise unnoticed until patient develop complication secondary to these condition.

**Key words:** Laparoscopic tubal ligation, ectopic pregnancy, ectopic pregnancy, contraceptive procedure, endometriosis

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**INTRODUCTION**

Laparoscopic tubal ligation is important method of permanent female sterilization in our country. In our country around 36% (\*2) of all sexually active married women underwent this surgery because of its less side effect and less failure rate. Now a days it is most popular as well as most acceptable method. It is largely influenced now a days may be due to economic compensation being given by government. During procedure we had incidentally found various condition about which patient is unaware and appropriate medical management was given to prevent morbidity and mortality secondarily occurring due to these conditions<sup>6</sup>.

**MATERIAL AND METHOD**

It is a retrospective study of lap TL done in the institute over a period of 5 years, carried out by multiple surgeons and so we have to rely upon the per operative findings as mentioned in registers maintained in OT (which may have minor subjective

variations). During the procedure various incidental finding was found.

Depending upon the incidental finding further management carried out like: for PID collection in POD, appropriate medical management carried out; patients with unruptured ectopic pregnancy managed with laparoscopic management in same sitting depending on site of ectopic, patient with endometriosis had been treated with appropriate medical therapy, patient with misplaced IUCD in peritoneal cavity had been managed by IUCD removal laparoscopically in same sitting, patients with uterine prolapse managed conservatively as well as surgically after proper consent and as per protocol.

As per government of India guidelines inclusion and exclusion criteria are as follows:

**INCLUSION CRITERIA**

- Married female age 22-49 years.
- At least one child above 1 year.
- Sound state of mind.
- Mentally ill patient-psychiatrist or legal guardian.

- Spouses or partner should not have undergone sterilization in past. -With cardio-respiratory fitness to undergo laproscopic procedure.
- Complicated heart disease.
- History of coagulation disorders.
- Intra-abdominal adhesion.
- Extreme obesity.

#### EXCLUSION CRITERIA

- Lung disease such as asthma or emphysema.

#### RESULTS

Incidental Finding	Total Number	%
Congenital Anomaly	106	1.13
PID	91	0.97
Uterine Prolapse	34	0.36
Endometriosis	24	0.25
Fibroid	17	0.18
Unruptured Ectopic Pregnancy	2	0.021
Misplaced IUCD	1	0.010
	n-9360	

Over a period of 5 years 9360 patients underwent laparoscopic tubal ligation. Among these women, 527 are 2<sup>nd</sup> para, 3095 are 3<sup>rd</sup> para and 5738 have >3 children. Out of those 91 patients having collection of fluid in POD. In all those cases appropriate medical therapy were given post operatively. 2 patients were diagnosed with ectopic pregnancy and managed by laparotomy. 34 patients had been diagnosed with uterine prolapse, among those 21 had 1<sup>st</sup> degree, 9 had 2<sup>nd</sup> degree and 4 had 3<sup>rd</sup> degree uterine prolapse. 24 patients have been diagnosed with endometriosis and given appropriate medical therapy. 17 patients have fibroid out of this 13 were subserosal and 4 were intramural.

#### DISCUSSION

Uterine congenital anomaly was the most commonly found incidental finding during procedure. Around 106 out of 9360 patients have been found anomaly. In our study most commonly found anomaly is unicornuate uterus followed by arcuate and bicornuate uterus. After the procedure patient have been explained and counseled about gynecological problems due to uterine anomaly like dysmenorrhea, menorrhagia, and dyspareunia<sup>3</sup>.

Pelvic inflammatory disease is the important public health problem and produce significant changes in the quality of life of women and day to day activity. Incidence varies from 1-2% per year among sexually active females of reproductive age. Among these 85% are spontaneous infection in sexually active women, remaining 15% follow procedure and favours organism to ascend up such procedures are endometrial biopsy, insertion of IUD, curettage etc. Mainly the women who have multiple sexual partners and living in poverty and with lower socioeconomic have more chances to develop PID. Over the period of 5 years of our study arthose 91 patient have found collection in POD during procedure among them 44 patients had history of insertion of IUCD which was

removed during TL, probably occurred due to alteration in cervico vaginal flora or low immunity against pathogens to predispose to produce cervicitis and vaginitis<sup>5</sup>.

Vaginal delivery with consequent injury to the supporting structure is the single most important acquired predisposing factor. We had found 33 patients and most of are multipara. All these patients had history of home delivery or over stretching of perineum or imperfect repair of perineal injury. Out of these 21 had first degree prolapse and have been managed by conservatively<sup>9</sup>, had second degree prolapse among these 7 patients had been managed conservatively or pessary treatment and 2 required vaginal hysterectomy, 4 patients have third degree uterine prolapse and have been managed by vaginal hysterectomy.

Most common site of endometriosis is ovary, pelvic peritoneum and POD. We have found in 24 patients out of 9360 of laparoscopic sterilization in a period of 5 years. We give appropriate medical therapy for endometriosis after procedure.

Fibroid is the most common benign tumor of uterus. It has been estimated that at least 20% of women at age of 30 years have got fibroid in their womb. Fortunately, most of them are asymptomatic. In our study 17 patients have found fibroid out of these 13 were sub serosal and 4 were intramural. All these patients have explained about fibroid and related symptoms likes pain, menorrhagia, and dysmenorrhea.

Ectopic pregnancy is one in which fertilized ovum is implanted and develop outside the normal endometrial cavity. Nearly 95% of ectopic pregnancies are implanted in the various segments of fallopian tube. The ampulla (70%) is the most common site, followed by isthmic (12%), fimbrial (11%) and interstitial (2%). The remaining 5% of nontubal ectopic pregnancies implant in ovary, peritoneal cavity, cervix or prior cesarean scar<sup>5</sup>. Now a day ruptured ectopic pregnancy

can be managed by laproscopically. In our study we noted that 2 patients have found ectopic pregnancy out of these 1 have ampullary tubal ectopic and 1 have isthmic ectopic. All these patients completed their family so that managed by doing salpingectomy by laparotomy. Patient whose family is not completed and have unruptured ectopic can be managed conservatively with help of methotrexate.

IUCD is one of the most commonly used contraceptive devices by sexually active women in our country. Mostly Cu containing IUCD is mainly used and its life span is from 2 year to 10 years. In our study period 1 patient have found misplaced IUCD in which it was left behind for longer duration than its life span. In that case the IUCD eroded the post wall of uterus and through that it was lying in the peritoneal cavity. In peritoneal cavity the IUCD was surrounded by the loop of bowel and forming a clump so that uterine perforation was unnoticed and patients are totally asymptomatic. Thus for prevent this it is advisable to informed all women about complication of insertion of IUCD and complication of not routine follow up for check.

Only drawback related to laproscopic tubal ligation is its steep learning curve. It requires special training to perform comparing with abdominal tubal ligation. If surgeons are not well trained enough to perform these surgeries, patient may end up with complications such as tubal injury leading to bleeding which may need laprotomy, may lead to bladder, bowel, major blood vessel injuries. Wrong identification of tubes may lead to surgery failure if surgeon is not well trained enough to differentiate tubes from round ligament. But still in these era where laproscopy is becoming popular, it has become a magic tool to perform these surgeries with just 1cm incision.

So, through all this laproscopic sterilization is not only helpful to achieving our goal for sterilization but it is also helpful to be an accurate diagnostic and therapeutic tool for the identification of all those condition for which patient is totally unaware and required immediate or medical treatment otherwise lead to grievous life threatening complication.

## CONCLUSION

Laproscopic sterilization is safe and effective contraceptive procedure with minimum morbidity and mortality to the patient. During laproscopy direct visualization of the pathology and the rest of abdominal cavity is feasible which is helpful in planning out further management of patient and condition. Thus, laproscopy is not only helpful for better management of disease but also helpful by early diagnosis of all these and reducing the mortality in a few cases like unruptured ectopic pregnancy undiagnosed until its rupture. Laproscopy carried out with aim of achieving female sterilization not only helped in controlling the birth rate but also helped us by incidentally noticed life threatening condition such as ectopic pregnancy and uterine perforation

secondary to an IUCD which might be missed until patient have been develop complication secondary to these.

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