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"Role of Laparoscopy in Benign Ovarian Tumour"

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Abstract

Aim: To determine the benefits, harms and role of laparoscopy in Benign Ovarian Tumour. To estimate the operative time, blood loss, length of hospital stay, recovery time, and postoperative pain in laparoscopy in Benign Ovarian tumours.

Methods: An observational study was conducted in 100 patients with Benign Ovarian tumour at Department of Obstetrics and Gynecology, Government Medical College Akola over a period of 1year from March 2018 to March 2019 after obtaining ethical clearance. All patients went through laparoscopic cystectomy and assessed for amount of surgery time, blood loss, surgical complications, postoperative complications, and hospital stay and recovery time.

Results: In last 1 year 100 laparoscopic cystectomy was performed out of which only (4%) were converted to laparotomy due to complications. Mean age of females included in study was 30 to 40 yrs. Mean surgical duration was 39.25 minutes; mean blood loss was 35.75 ml. Major complication rate was (4%) of bowel injuries and hemorrhage.

Conclusion: In women undergoing laparoscopic cystectomy for benign ovarian tumours was associated with a reduction in fever, urinary tract infection, postoperative complication, postoperative pain, hospital stay total surgical cost, recovery time and less adhesion formation.

Key words: Benign ovarian tumour; Cyst; Laparoscopy cystectomy

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Introduction

Ovary is a complex embryological, historical and physiological structure that is capable of developing over 50 types of primary neoplasm variants [1].

Ovarian neoplasm is the common gynecological problem encountered by a gynecologist in their daily practice. They can be seen in all age groups and can be physiological or pathological cysts.

Approximately 80% of ovarian tumors can be successfully treated surgically using an endoscopic technique [2].

There are various types of benign ovarian tumours like a follicular cyst, mucinous cyst, corpus luteal cyst, theca lutein and granulose lutein cyst, polycystic ovarian syndrome and chocolate cyst.

Laparoscopy is considered the gold standard approach to manage benign ovarian cysts. The benefits of laparoscopy include reduced postoperative analgesic requirement, earlier mobilization reducing chances of Deep Venous Thrombosis (DVT), cosmetic advantages, earlier discharge from the hospital, and return to normal activity [3].

Laparoscopy minimizes tissue trauma and maintains the tissue moist, thus decreasing the likelihood for formation of pelvic adhesions [4]. It reduces the use of narcotics [5].

Laparoscopy has certain advantages over laparotomy which includes better visualization of the diaphragm, superior view of the surface of the liver, and the ability to magnify even small lesions with minimal incisions [6].

In treating ovarian cyst during pregnancy, laparoscopy has a better clinical outcome than laparotomy, with less blood loss, faster recovery, less postoperative pain, shorter hospital stay and less postoperative pelvic adhesion [7].

Methods: This is an observational study carried out over one year period in a tertiary care institute. Study was done on patients attending gynecology OPD at our institute from March 2018 to March 2019.

Patients were screened and investigated and operative procedure was decided on the basis of indication. Pre-operative and intraoperative data findings of patients were collected.

Surgical Approach: Whether the plan was organ (ovary) conservation or removal, it was discussed with the patient before operation. Route and types of surgery complications and the possibility of conversion to laparotomy was discussed and documented via informed consent.

Surgery was performed under general anesthesia. The position given to the patient was modified lithotomy position with hips extended in a 40-degree angle. Trendelenburg position. Shoulder bolters prevent slippage up the table and arms are padded and tucked by the side.

Table 1: Age wise distribution of patients.

Age group (years)	No. of patients	Percentage (%)
20 to 30	20	20
30 to 40	70	70
> 40	10	10

Table 2: Surgical Duration.

Surgical Duration (minutes)	No. of Patients	Percentage (%)
30	30	30
30-60	60	60
60-90	10	10
90-120	None	--

Table 3: Intraoperative blood loss.

Amount of Blood loss (ml)	No. of Patients	Percentage (%)
20-30	50	50
30-50	30	30
> 50	20	20
Blood transfusion required	NO	Nil

Table 4: Distribution of patients according to major intraoperative complications.

Complications	No. of Patients	Percentage (%)
Hemorrhage	2	2
Bowel Injuries	2	2
Urological Injuries	None	--
Anesthesia Complications	None	--

Table 5: Distribution of patients according to minor intraoperative complications.

Complications	No. of Patients	Percentage (%)
Nausea	5	5
Vomiting	2	2
Chest discomfort	None	--
Misplace Suture material	None	--
Wrong Passage of Veress needle and trocar	None	--

After examination under Anesthesia, a uterine manipulator is inserted. Veresss needle insertion and pneumoperitoneum formation done in all cases. A primary trocar is inserted at supraumbilical site.

Ethical Human Considerations

The study was approved by the Institutional Ethics Committee.

Results

In last one year at our training institute, total 100 laparoscopic cystectomy were performed of which 4 were converted to laparotomy due to complication. It was observed that the maximum number of cases was reported between the age group 30-40 years while minimum above 40 years.

In present study out of 100 cases 30% cases had a surgical duration of up to 30 minutes, 60% cases had a surgical duration between 30 to 60 minutes and 10% had a surgical duration between 60 to 90 minutes. It was observed that the maximum number (60%) of surgical duration was reported for duration of 30 to 60 minutes, while the minimum number (10%) surgical duration was reported for 60 to 90 minutes duration.

The surgical duration was calculated from surgical records to cross verify with anesthesia records. Patients required prolonging time due to anesthesia complications or associated surgical producer were excluded.

Blood loss was estimated from the changing vitals during intraoperative period required cautery and postoperative blood transfusion. 50% of patients had 20 to 30 ml of blood loss. Only 20% had blood loss greater than 50 ml. None of the patients required a postoperative blood transfusion. In present study out of 100 cases 2% had major intraoperative complications like mild hemorrhage due to dense adhesions and large size cystadenomas. There was also evidence of minor bowel injuries in 2% of cases. No evidence of urological injuries and none of the patient had anesthesia complications.

Discussion

This systematic review update has evaluated the benefits of harms and costs of laparoscopy for the treatment of benign ovarian tumours.

The results of study shows that laparoscopic surgery was associated with significantly less post-operative pain, fewer adverse effects of surgery (surgical injuries or postoperative complications) and shorter length of stay in hospital.

In present study, the major complication rate was 4% of hemorrhage and minor bowel injuries which was recognized immediately and repaired.

Conclusion

The role of laparoscopy in benign ovarian tumour appears safe and effective approach for variety of indications with minimal morbidity. It is beneficial for all age group nulliparous, multiparous patients as well as obese patients. With the knowledge of all complications and its prevention, maximum surgeons can give benefits of advantages of laparoscopy in benign ovarian tumour to all women. More and more randomized clinical trials will motivate surgeons for this approach.

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References

1. Lidia RF Mederios, Daniela D Rosa, Mary C Bozzetti, Jandyra MG Fachel, et al. Laparoscopy versus laparotomy of benign ovarian tumour. Cochrane Database of Systematic Reviews. 2009; 15.
2. Canis M, Wattiez A, Mage G, Pouly JL, Raiga J, Glowaczover E, et al. Laparoscopic management of adnexal masses. Baillière's Clinical Obstetrics and Gynaecology. 1994; 8: 723-34
3. Alobaid, Memon A, Alobaid S, Aldakhil L. "Laparoscopic management of huge ovarian cysts". Obstetrics and Gynecology International. 2013; 4.
4. Thornton KL, DeCherney AH. Laparoscopic management of ovarian cysts: an endocrinologist view. Yale J Biol Med. 1991; 64: 599-606.

5. Yuen PM, Yu KM, Yip SK, Lau WC, Rogers MS, Chang A. A randomized prospective study of laparoscopy and laparotomy in the management of benign ovarian masses. Am J Obstet Gynecol. 1997; 177: 109-114.

6. Pejovic T, Nezhat F. Laparoscopic management of adnexal masses the opportunities and the risks. Ann N Y Acad Sci. 2001; 943: 255-268.

7. Chen l, Ding J, Hua K., Comparative analysis of laparoscopy versus laparotomy in the management of ovarian cyst during pregnancy, J Obstet Gynaecol Res. 2014; 40: 763-769.