

# OVARIAN CYST ; LAPAROSCOPIC MANAGEMENT

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**ABSTRACT**

**O**BJECTIVE: To assess the results of operative laparoscopy in the management of ovarian cysts. DESIGN: Retrospective evaluation of women who had undergone laparoscopic management of cystic ovarian masses. SUBJECT: Forty five women with clinically and sonographically benign cystic ovarian masses. INTERVENTION: Operative laparoscopy under general anaesthesia. RESULTS: No major intra-operative complication occurred in this series. Minor complications included injury of inferior epigastric artery, nausea, shoulder pain and urinary retention. Adnexal cystic mass varied from 4 to 12 cms with a mean size 6.5 cms. Histopathological examination showed malignancy in 2% of cases. CONCLUSION: Operative laparoscopy appears to be safe and effective method for treating clinically and ultrasonographically benign ovarian cysts. Day surgery is possible in majority of cases.

**INTRODUCTION**

Cystic ovarian masses are frequent finding in women of all ages, inspite of progress in ultrasonography and identification of tumour markers, surgical intervention and pathological examination are still required to distinguish between benign and malignant adnexal masses. As the risk of malignancy in young women is very low<sup>1,2</sup> laparotomy seems to represent an over

treatment in this category.

Although operative laparoscopy is being used more frequently, doubts still remain about the risks and complications of this treatment modality<sup>3</sup>.

To assess the results of operative laparoscopy a retrospective analysis of 45 cases managed in private sector was conducted.

## MATERIALS AND METHODS

The medical records of 45 women aged 17-45 years who underwent laparoscopic surgery over the period of 3 years were reviewed. All operations were performed in private sector in Multan. Pre-operative ultrasonography was performed in all cases to determine the size and nature of mass. The criteria for benign cysts were, size less than 10 cm, distinctive borders and no evidence of solid parts and thick septum. The cysts which were considered to be benign were followed up for various periods to wait spontaneous regression, the mean observation time being 4.8 months. Persistent ovarian cysts fulfilling the above mentioned criteria were offered laparoscopic surgery instead of laparotomy.

The criteria for performing laparotomy instead of laparoscopy was; an irregular or fixed mass at bimanual examination, solid or irregular masses on ultrasound and signs of ascites. The cystic masses varied in size between 4 and 12 cms with a mean size of 6.5 cms.

Surgical management of all patients was standardized. All procedures were carried out under general endotracheal anaesthesia and multipuncture operative laparoscopy technique was used. The procedure involved initial inspection of entire abdominal cavity with special emphasis on identifying any signs of malignancy. Three patients showed normal ovaries and had unilateral hydrosalpinx so these cases were excluded from the analysis.

Before completion of surgery abdominal cavity was extensively rinsed with irrigating fluid. All specimens were sent for histopathological examination. All patients were followed for a period of one to six months after surgery and no recurrence of cysts were observed during this period.

## RESULTS

Out of 45 women with cystic adnexal masses three patients had bilateral ovarian cysts. Surgical procedures performed are given in table 1.

Extirpation of cyst was performed in 24 patients (55%), salpingo-oophorectomy in 14 patients (31%), oophorectomy was performed in 5 patients (11%) and extirpation of paraovarian cyst in 2 patients (4%).

**Table 1 Surgical procedure performed laparoscopically (n=45)**

Diagnosis	No of patients	%age
Extirpation of cyst	24	55%
Salpingo-oophorectomy	14	31%
Oophorectomy	5	11%
Extirpation of paraovarian cysts	2	4%

**Table 2 Histological Diagnosis**

Diagnosis	No of patients	%age
Simple cyst	16	27%
Endometrioma	9	19%
Cystadenoma	6	13%
Dermoid cyst	6	13%
Corpus luteum	3	8%
Paraovarian cyst	2	4%
Cystadenofibroma	2	4%
Ovarian cancer	1	2%

The histological nature of cysts removed

laparoscopically is as given in table 2.

Overall operating time ranged from 20 to 200 minutes with a mean of 54 minutes. Out of 45 patients 28 were discharged on the same day (63%) and 17 patients (37%) stayed over night for observation.

### INTRA-OPERATIVE COMPLICATIONS

The main intra-operative complication was bleeding which occurred in 3 patients (6%). In one of these patients bleeding was from inferior epigastric artery and in remaining 2 from the cyst bed. All of these patients were managed laparoscopically except one which required laparotomy (2%).

### POST OPERATIVE COMPLICATION

Post operative complications occurred in 4 patients (8%) including abdominal wall haematoma, abdominal and shoulder pain, urinary retention and infection of intra umbilical incision. All of these complications were managed conservatively.

### DISCUSSION

As most adnexal masses are benign so laparoscopic management is becoming increasingly common<sup>3</sup>. However inadequate endosurgical procedure may worsen the prognosis in patients with malignant ovarian neoplasm falsely diagnosed pre-operatively as benign. One patient in our study (2%) was found to have ovarian malignancy. This figure is some what higher as compared to 0.4% reported by Nezhat et al (1992). Our results are in more agreement to those presented by Canis et al (1994) who found a malignancy rate of 2.5%.

Conflicting opinions have been expressed about the problems of spillage of ovarian contents in cases of unsuspected malignancies. However controlled studies have indicated that the spillage of cyst fluid

had no influence on the prognosis<sup>7,8</sup> as long as proper radical surgery is performed close to the time of spillage<sup>9</sup>.

In fact multivariate analysis have shown that rupture of malignant cyst is without prognostic significance in terms of patient survival<sup>10,11</sup>. An explanation for the lack of effect of spillage at the time of surgery may be found in the observation that only 25% of malignant cyst had malignant cells in their fluid<sup>12</sup>.

Operative laparoscopy appears to be acceptably safe and an effective method for treating clinically benign adnexal mass of cystic character. However preoperative and intraoperative evaluation of the cyst should be critically performed to reduce the rate of inadequate surgery on malignant tumours.

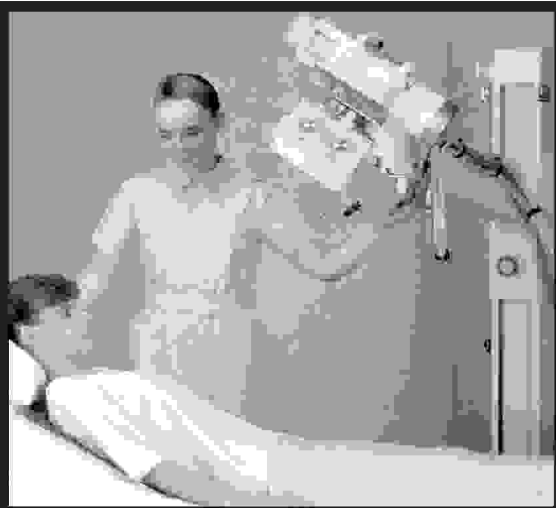
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# X-RAYS

## ALL ROUTINE & SPECIALIZED X-RAYS



**UROLOGY**

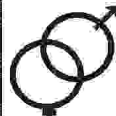
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**SURGERY**

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