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Original Research Article

A clinical study of large ovarian cyst with various presentations: prospective interventional study

Yellapragada Lakshmi Nalini¹, Deepak Sharma^{2*},
A. Sarath Chandra², B. S. Lakshmi Deepshika²

¹Department of Obstetrics and Gynecology, ²Department of Surgery, Malla Reddy Institute of Medical Sciences, Hyderabad, Telangana, India

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***Correspondence:**

Dr. Deepak Sharma,

E-mail: sharma.deepakdr@gmail.com

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ABSTRACT

Background: The definition of huge ovarian cysts is not well described in the literature. Some authors define large ovarian cysts as those that are more than 10 cm in diameter as measured by preoperative scans. An ovarian cyst is a common gynecological problem and is divided into two main categories; physiological and pathological. Aims and objectives of this study was to find out various presentations of large ovarian tumour.

Methods: It was a prospective interventional study done for a period of two year from March 2015 to March 2017 in Department of Obstetrics and Gynecology as well as in Department of General Surgery. During the study period a total of 30 study participants were enrolled.

Results: Majority of the study participants were in the age group of 18-28 years (66.66%) and 33.33% were in the age group of 28-38 years. Near about 33.33% were uncomplicated. Near about 33.33% presented with torsion, 7% with rupture of cyst, infection was seen in 13.33%. About 13.33% were malignant cyst.

Conclusions: Large ovarian cysts are a clinical challenge for Gynaecologists. Quite a good number of these cases can end up with complications and hence, all of them have to be subjected to surgery.

Keywords: Cyst, Laparotomy, Ovarian, Tumour

INTRODUCTION

An ovarian cyst is a common gynecological problem and is divided into two main categories; physiological and pathological.¹ Physiological cysts are follicular cysts and luteal cysts. Pathological cysts are considered as ovarian tumors, which might be benign, malignant, and borderline. Benign tumors are more common in young females, but malignant are more frequent in elderly females.² When ovarian cysts are large, they may cause abdominal discomfort. If pressing on the bladder it may also cause frequency of urination.³ The signs and symptoms of ovarian cysts may include; pelvic pain, dysmenorrheal, and dyspareunia. Other symptoms are

nausea, vomiting, or breast tenderness, fullness and heaviness in the abdomen and frequency and difficulty emptying of the bladder.⁴

The definition of huge ovarian cysts is not well described in the literature. Some authors define large ovarian cysts as those that are more than 10 cm in diameter as measured by preoperative scans.⁵ Others define large ovarian cysts as those that are reaching above the umbilicus.⁶ Laparoscopic management of huge ovarian cysts has been described in previous case reports.⁷⁻⁹ Despite this, most patients with huge ovarian cysts are managed by laparotomy. Therefore, the present study was conducted with the objectives to find out various

presentations of large ovarian tumour and to intervene surgery depending upon the presentation.

METHODS

This was A hospital based prospective interventional study carried out in Department of Obstetrics and Gynecology and Department of General Surgery at Malla Reddy Institute of Medical Sciences, Hyderabad.

Study population consisted of all women who came to Obstetrics and Gynaecology Department with a history of abdominal lump who were rule out as ovarian cyst on examination as well as on USG.

The study was done for a period of two years from March 2015-March 2017. A total of 30 study participants were enrolled in the study.

Methodology

Study participants who came with a history of abdominal lump and who were ruled out on clinical as well as USG findings as ovarian cyst were included in the study. A detailed history was taken considering variables as Age, duration of lump, complication due to lump. A detailed clinical examination was done and certain investigations such as USG abdomen, Doppler study, histopathological examination of lump etc. were done. The study participants underwent surgical intervention depending upon the USG and histopathological report. All the operated study participants were followed up for a period of two years to see any recurrence.

Statistical analysis

Data was entered in Microsoft excel sheet and analyzed using simple proportions.

Institutional ethics committee permission of MRIMS was obtained before the start of the study. Informed and written consent was obtained from every participant.

RESULTS

Table 1 shows majority of the study participants were in the age group of 18-28 years (66.66%) and 33.33% were in the age group of 28-38 years respectively.

Table 1: Distribution of study participants according to age.

Age (years)	Frequency	Percentage
18-28	20	66.66
28-38	10	33.33
Total	30	100

Table 2 shows near about 66.66% were having cyst size of 10-20 cm and 33.33% were having cyst size of 20-34 cm.

Table 2: Distribution of study participants according to size of cyst.

Size (cm)	Frequency	Percentage
10-20	20	66.66
20-34	10	33.33
Total	30	100

Table 3 shows about 33.33% were uncomplicated. Near about 33.33% presented with torsion, 7% with rupture of cyst, infection was seen in 13.33%. About 13.33% were malignant cyst.

Table 3: Distribution of study participants with complication of cyst.

Complications	Frequency	Percentage
Torsion	10	33.33
Rupture	2	6.66
Infection	4	13.33
Malignancy	4	13.33
Uncomplicated	10	33.33
Total	30	100

Table 4 shows among all study participants USG abdomen was done. In 33.33% of the study participants CT abdomen was done. CA 125 was done in all cases and values of >35 were seen in 4 cases. LDH was increased in one of the cases with histopathology proving germ cell tumor. Inhibin was raised in 1 case where histopathology was granulosa cell tumor. CEA was raised in 1 case of mucinous cystadenoma. 19 cases were serous cystadenomas. Mucinous cystadenomas were noted in 3 cases in which 1 was carcinoma.

Table 4: Different diagnostic tools used.

Diagnostic tool	Frequency	Percentage
Ultrasound abdomen	30	100
CT scan	10	33.33
Ca-125 >35	4	13.33
Ca-125 <35	26	86.66
LDH	1	3.33
Inhibin	1	3.33
CEA	1	3.33

Table 5 shows near about 93.33% had unilocular thin cyst and 7% were unilocular solid cyst.

Table 5: Type of cyst on ultrasonography abdomen.

Type of cyst	Frequency	Percentage
Unilocular thin cyst	28	93.33
Unilocular Solid cyst	2	6.6
Total	30	100

All cases were subjected to laparotomy and cystectomy was the preferred surgery. 2 of our cases have undergone additional hysterectomy (suspected malignancy). 1

malignant case was unmarried, and the disease was in Stage I, hence only cystectomy was done. All cases were subjected to chemotherapy. Follow up was done for period of 2 years at 6-month interval to see for recurrence. No recurrence of cyst was observed.

DISCUSSION

In present study majority of the study participants were in the age group of 18-28 years (66.66%) and 33.33% were in the age group of 28-38 years respectively. The present study findings were consistent with other study done by Patrick et al where 41% of the study participants were in the age group of 21-30 years.¹⁰

Among all study participants USG abdomen was done in present study. In 33.33% of the study participants CT abdomen was done. CA 125 was done in all cases and values of >35 were seen in 4 cases. LDH was increased in one of the cases with histopathology proving germ cell tumor. Inhibin was raised in 1 case where histopathology was granulosa cell tumor. CEA was raised in 1 case of mucinous cystadenoma. 63.33% cases were serous cystadenomas were as in another study 20% were serous cystadenomas.¹¹ In another study serous cyst adenomas were 11% and mucinous were 8% respectively.¹⁰ Near about 10% were mucinous cystadenoma and in another study 5% were mucinous cystadenoma. In present study 3.33% was malignancy found while in another study 11% of the ovarian cyst were malignant.¹¹

All cases were subjected to laparotomy and cystectomy was the preferred surgery. Two cases have undergone additional hysterectomy (suspected malignancy). Among all cases one malignant case was unmarried and the disease was in Stage I, hence only cystectomy was done. In another study 18.7% cases underwent cystectomy and 3% underwent laparoscopy followed by laprotomy.¹² In another study they quoted that the definitive management for large ovarian cyst is laparotomy and excision of the cyst, but authors have also quoted that huge ovarian cysts can be managed by laparoscopic means.

In the event of complicated large ovarian cysts like rupture, torsion, hemorrhage, malignancy and infection, laparotomy is the procedure of choice, along with excision of the cyst. Patients with large ovarian cysts along with pregnancy should be subjected to laparotomy, caesarean section and cystectomy. If surgery is required it is advantageous to perform it in the early second trimester, as the risk of abortion is lower at that time.¹³

CONCLUSION

Large ovarian cysts are a clinical challenge for Gynaecologists. Quite a good number of these cases can end up with complications and hence, all of them have to

be subjected to surgery. Malignant ovarian cysts must be followed up with chemotherapy.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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