



A STUDY OF OVARIAN CYST MANAGED OPERATIVELY AT TERTIARY HOSPITAL, CIVIL HOSPITAL AHMEDABAD.

Obstetrics & Gynaecology

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KEYWORDS

INTRODUCTION:

Ovarian neoplasm is the most common lesion seen in female of any age group. Ovarian cancer not an uncommon clinical entity among all gynecologic tumors and is the most fatal gynecologic malignancy.^[1] Ovarian cyst can be physiological or pathological. Physiological cysts are mainly follicular cysts and luteal cysts which are benign in nature. Pathological cysts are mainly ovarian tumors which can be benign, borderline or malignant.^[2] Benign diseases of ovary are commonest accounting for 90% of ovarian diseases. Benign lesions of ovary are two types non-neoplastic and neoplastic. Benign cysts are often asymptomatic and may be detected on ultrasound performed for some other cause or on routine scan. They may be symptomatic due to complications or large size when they require treatment.^[3] Benign tumors are more common in young females and malignant tumors are more common in elderly females.^[4] According to World Health Organization histological classification ovarian tumors are subdivided into surface epithelial stromal tumors, sex cord stromal tumors, germ cell tumors, malignant and not otherwise specified and metastatic non ovarian tumors from non-ovarian primary according to the tissue of origin. Germ cell tumors is the commonest benign tumor and epithelial cell tumor is the commonest malignant one.^[5] However, diagnosis could be made only after the histopathological examination of ovarian cysts.

AIM:

A study of ovarian cysts managed operatively at a tertiary hospital, civil hospital Ahmedabad, to provide a clinicopathological assessment of ovarian cysts, and focus on the frequency, location, clinical presentation, the histopathological and sonographic variation of each type in different types of ovarian cysts.

MATERIALS AND METHODS:

This is a retrospective study done in the department of OBGY of BJMC from November 2021 to November 2022. All the cases of operated for ovarian cysts were included in this study. All cases were operated on after routine investigations, anesthetic check-ups and with valid consent after explaining the procedure and complications of the surgery (laparoscopy/laparotomy). CA-125 was not done routinely for all patients except for a few patients. All the tissues were sent for histopathology analysis on the day of the surgery. All patients were followed up with histopathologic reports, and analysis was done.

Study Type: A Retrospective, Observational, Analytic Study

RESULTS:

Out of 440 operated cases of gynecology in two units of department of OBGY of BJMC from November 2021 to November 2022, 45 cases (10%) were operated for ovarian cysts.

**Table 1: Demographic Profile
A) Ovarian Cyst And Age**

AGE (YEARS)	NO. OF CASES	%
Adolescent (<=17 years)	4	8.88
Reproductive age group (18-49 years)	41	91.11
Old age group (>=50 years)	0	0

The age range was from 15 years to 45 years. The mean age of presentation was 29 years. The youngest patient presented at age of 15 years with serous cyst adenoma of papillary variety (with incidence of 11.11 %) and oldest one with benign simple ovarian cyst (with incidence of 17.77 %) at age of 45 years.

B) Ovarian Cyst And Parity

PARITY	NO. OF CASES	%
NULLIPAROUS	19	42.22
PRIMIPAROUS	6	13.33
MULTIPAROUS	20	44.44

The incidence was common with multiparous then primiparous women. In this study incidence in nulliparous was 19(42.22 %) cases.

C) Ovarian Cyst And Marital Status

MARITAL STATUS	NO. OF CASES	%
MARRIED	32	71.11
UNMARRIED	13	28.88

D) Ovarian Cyst And Pregnancy

PREGNANCY	NO. OF CASES	%
YES	2	4.44
NO	43	95.55

Table 2: Symptomatology Of Cystic Ovarian Tumors

SYMPTOMS	NO. OF CASES	%
ABDOMINAL PAIN	28	62.22
ABDOMINAL MASS	7	15.55
MENORRHAGIA	4	8.88
INCIDENTAL FINDINGS	2	4.44
INFERTILITY	4	8.88
POST MENOPAUSAL BLEEDING	0	0

Cystic ovarian masses are not an uncommonly encountered ovarian tumors in women and they present with vague symptoms, most commonly lower abdominal pain and sensation of fullness. In our study, abdominal pain was the commonest symptom, 28(62.22 %) cases. Only 4 (8.88 %) cases had symptom of menorrhagia in this study. However, infertility also contribute same as menorrhagia and 2(4.44 %) cases were incidental findings.

ABDOMINAL PAIN	NO. OF CASES	%
LOWER ABDOMINAL PAIN	21	75
ABDOMINAL PAIN WITH VOMITING	2	7.14
ABDOMINAL PAIN WITH BLEEDING	1	3.57
ABDOMINAL PAIN WITH BACK PAIN	3	10.71
FLANK PAIN	1	3.57

Abdominal pain that occurs in the case of an ovarian cyst may also be accomplished with different another type of the pain like back pain, vomiting, flank pain, and other symptom like bleeding per vaginum. Among all this, the ovarian cysts were most presented with lower abdominal pain in this study.

Table 3: Location Of Cyst

LOCATION	NO. OF CASES	%
UNILATERAL	38	84.44
BILATERAL	7	15.55

Most of the ovarian cysts were unilocular in nature, with equal incidence on right and left side.

Table 4: Size Of Operated Cyst

SIZE	NO. OF CASES	%
<4 CM	7	15.55
4-7 CM	12	26.66
>7 CM	26	57.77

In >7 cm size cysts operative intervention done more commonly, 26 (57.77%) cases in this study.

Table 5: Correlation With Medical Intervention

PRIOR MEDICAL INTERENTION	NO. OF CASES	%
YES	14	31.11
NO	31	68.88

Among these operated ovarian cysts 31 (68.88 %) cases were not taken medical intervention prior.

Table 6: Methods Use For Operative Intervention

METHODS	NO. OF CASES	%
LAPROSCOPY	30	66.66
LAPROTOMY	13	28.88
LAPROSCOPY F/B LAPROTOMY	2	4.44

Now a days laparoscopic mode of intervention is most commonly used for ovarian cysts. In this study 30 (66.66 %) cases were operated laparoscopically.

Table 7: Type Of Cyst Distribution

TYPES OF CYST	NO. OF CYST	%
FOLLICULAR CYST	7	15.55
LUTEAL CYST	2	4.44
BENIGN SIMPLE CYST	8	17.77
DERMOID CYST	6	13.33
MUCINOUS CYST	3	6.66
SEROUS CYST	5	11.11
ENDOMETRIOSIS	5	11.11
HEMORRHAGIC CYST	6	13.33
INFLAMMATORY CYST	2	4.44
INCLUSION CYST	1	2.22

The incidence of benign cystic ovarian tumor were 14 (31.11 %) cases. The benign epithelial was 8 (17.77 %) cases. The benign germ cell mature teratoma was 6 (13.33 %) cases. Among the benign epithelial tumors, serous cystadenoma were 5 (11.11 %) cases, mucinous cystadenoma were 3 (6.66 %) cases.

Non neoplastic cystic ovarian tumors in our study were 31 (68.88 %), of which simple follicular cyst were 7 (15.55 %), corpus luteal cyst 2 (4.44 %), endometriotic cysts were 5 (11.11 %), simple cysts were 8 (17.77 %), hemorrhagic cysts were 7 (15.55 %), inflammatory cysts were 2 (4.44 %) and inclusion cyst was 1 (2.22 %).

Table 8: Age Wise Distribution Of Ovarian Tumors

TYPE OF CYST	<17 YEAR	%	REPRODUCTIVE AGE	%
FOLLICULAR CYST	0	0	7	15.55
LUTEAL CYST	0	0	2	4.44
BENIGN SIMPLE CYST	1	2.22	8	17.77
DERMOID CYST	1	2.22	6	13.33
MUCINOUS CYST	0	0	3	6.66
SEROUS CYST	2	4.44	5	11.11
ENDOMETRIOSIS	0	0	5	11.11
HEMORRHAGIC CYST	0	0	6	13.33
INFLAMMATORY CYST	0	0	2	4.44
INCLUSION CYST	0	0	1	2.22

Highest incidence of ovarian cysts were found among the reproductive age group (18-49 years) in this study.

Table 9: Correlation Between Histopathology And Usg Findings

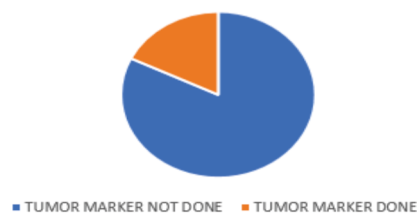
HISTOPATHOLOGY	NO. OF CASES	USG REPORT
FOLLICULAR CYST	7	FOLLICULAR CYST - 1 HEMORRHAGIC CYST - 2 DERMOID CYST - 1 CHOCOLATE CYST - 1 TO MASS - 1 BENIGN STROMAL TUMOR - 1

LUTEAL CYST	2	CHOCOLATE CYST - 1 SIMPLE CYST - 1
BENIGN SIMPLE CYST	8	COMPLEX CYST - 1 UNILOCULAR CYST - 5 ECHOGENIC CYSTS - 2
DERMOID CYST	6	DERMOID CYST - 5 CYST WITH SOLID CYSTIC COMPONENTS - 1
MUCINOUS CYST	3	MULTILOCULATED CYST - 1 SEROUS CYSTADENOMA - 1 RUPTURE OVARIAN CYST - 1
SEROUS CYST	5	LARGE CYT WITH SOLID CYSTIC COMPONENT - 1 ECHOGENIC LARGE CYST WITH SEPTA - 1 PERITONEAL MUCINOUS CYST - 1
ENDOMETRIOSIS	5	CHOCOLATE CYST - 2 HEMORRHAGIC CYST - 3
HEMORRHAGIC CYST	6	HEMORRHAGIC CYST - 5 CYST WITH INFLAMMATORY ETIOLOGY - 1
INFLAMMATORY CYST	2	COMPLEX CYST - 1 CHOCOLATE CYST WITH HYDROSALPINX - 1
INCLUSION CYST	1	SIMPLE CYST - 1

Ultrasonography accurately diagnosed dermoid and hemorrhagic cyst. Chocolate cyst missed diagnosed as hemorrhagic cyst by ultrasonography.

Table 10: Correlation Between Ovarian Cysts And Tumor Markers

TUMOR MARKER & OVARIAN CYST



In this study, among 45 cases tumor markers were done only in 8 (17.77 %) cases, which were within normal limits. CA-125 was not done routinely for all patients.

DISCUSSION:

Cystic ovarian masses are not an uncommonly encountered ovarian tumors in women and they present with vague symptoms. They are either functional cysts, benign or malignant tumors. It is very essential to differentiate as it requires executing a definitive treatment. As the symptoms are being vague in making the definitive diagnosis. It is advised to take the combination of history with clinical examination and ultrasonography to arrive at proper diagnosis. However, histopathology gives the final diagnosis.

In our study, abdominal pain was the commonest symptom, 28 (62.22 %) cases. In this study incidence of operated ovarian cysts 45 (10 %) cases. The incidence of benign cystic ovarian tumor were 14 (31.11 %) cases. The benign epithelial was 8 (17.77 %) cases. The benign germ cell mature teratoma was 6 (13.33 %) cases. Among the benign epithelial tumors, serous cystadenoma were 5 (11.11 %) cases, mucinous cystadenoma were 3 (6.66 %) cases.

Non neoplastic cystic ovarian tumors in our study were 31 (68.88 %), of which simple follicular cyst were 7 (15.55 %), corpus luteal cyst 2 (4.44 %), endometriotic cysts were 5 (11.11 %), simple cysts were 8 (17.77 %), hemorrhagic cysts were 7 (15.55 %), inflammatory cysts were 2 (4.44 %) and inclusion cyst was 1 (2.22 %).

CA-125 was not done routinely for all patients. In this study, among 45 cases tumor markers were done only in 8 (17.77 %) cases, which were within normal limits. And histopathological findings also not suggest any malignancy in the operated cases included in this study. The decision for cystectomy or ovariectomy was taken on the basis of clinical presentation, clinical examination and ultrasonography.

CONCLUSION:

Benign ovarian tumor more commonly seen in reproductive age group. They exhibit a wide range of clinical and histopathological patterns. Most of them are unilocular in nature. Pain in abdomen is the commonest symptom in cystic ovarian tumors. Laparoscopy is more preferred modality for operating ovarian cysts. Ultrasonography accurately diagnosis dermoid and hemorrhagic cyst. Tumor markers not required for all the cases of ovarian cyst to be operated.

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