

The Clinical and Laboratory Profile of Patients with Ovarian Tumor in Different Private Hospital Sylhet

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Abstract

Objective: In this study our main goal is to evaluate the clinical and laboratory profile of patients with ovarian tumor.

Method: This cross-sectional observational study was done at different tertiary hospitals from 2018 to 2020. Total 100 post-menopausal women with ovarian cysts aged 50-65 years were enrolled for this study. In each case, information about the patient was collected in a prescribed questionnaire after getting written consent from the patients in a preformed consent form. **Results:** During the study, (50%) of the patients belong to 54-57 years age group. 18% had family history of cancer, followed by 33.3% were nulliparas, 20.4% used barrier contraceptive method. According to histopathology report of the patients 27.9% cases mucinous cyst adenoma were found followed by 18.7% cases endometrioma, in 17.5% cases serous cyst adenoma, 5.1% cases mucinous adenocarcinomas 5.6% cases papillary adenocarcinoma, 2.5% cases paraovarian cysts and benign cystic lesion and area of hemorrhagic infarct were reported. Rt. Ovarian cyst about (10x6.6)cm cases were found 23.2% cases, followed by Rt. Adenexal mass about (12x9)cm found in 21.1% cases, 11.6% cases Large complex mass about (13.9X12.8)cm were found, 6.3% cases cystic mass about (13x10)cm in the Lt. abdenexa were found, 5.3% cases Malignant ovarian tumor and complex pelvic mass about (9.3X7)cm were found. 26.6% cases mucinous cyst adenoma were found followed by 17.7% cases endometrioma, in 16.5% cases serous cyst adenoma, 5.1% cases Mucinous adenocarcinoma and Papillary adenocarcinoma, 2.5% cases Peravarian cyst and Benign cystic lesion and area of hemorrhagic infarct were reported. 32.4% cases were benign tumor and 16.2% cases were malignant.

Keywords: Ovarian tumor, ovarian cyst, malignant tumor.

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INTRODUCTION

An ovarian tumor is a slow-growing abnormal mass of tissue on or in a woman's ovary. A tumor is a solid mass, unlike a fluid-filled ovarian cyst. Tumors, which occur in many areas of the body, are abnormal growths that don't have any purpose. A tumor can be benign or cancerous (malignant), but ovarian tumors are typically benign. For information on cancerous ovarian tumors, read ovarian cancers [1-3]. Benign ovarian tumors most commonly occur in women of childbearing age. They occur in about 50 percent of women with irregular menstruation and in about 30 percent of women with regular menstruation. The causes of benign ovarian tumors are not well understood. Some research suggests correlations between certain risk factors and

the development of ovarian tumors: obesity, Infertility and family history of ovarian tumors or ovarian cancer [4, 5].

Tumors arise from principal ovarian components such as epithelial, germ cell and stromal tissue [4]. Of this 70-80% are epithelial origin, 10-15% stromal and 5% are germ cell origin [6]. From the clinical behavior of ovarian neoplasm, it is almost impossible to distinguish a benign tumor from its malignant counterpart. Therefore, in most cases it is diagnosed when it becomes already malignant. In recent years, a considerable international public demand has developed for ovarian cancer screening, unfortunately the available screening test are not sufficiently accurate

for general screening and so most of the ovarian cancer are not diagnosed until the tumor have been reached a late stage. It has been observed that 70% belong to clinical stage III and only 30% belong to stage I & stage II [7]. In this study our main goal is to evaluate the clinical and laboratory profile of patients with ovarian tumor.

OBJECTIVE

To evaluate the clinical and laboratory profile of patients with ovarian tumor.

METHODOLOGY

Study type

This was a cross sectional type of study.

Study period and place

This study was carried out at different tertiary hospitals of Bangladesh from 2018 to 2020. Where 100 post-menopausal women with ovarian cysts aged 50-65 years were enrolled for this study.

Inclusion criteria

Patients above the age of 50 years

Method

During the study, medical history was taken from the women, with specific attention to risk factors and family history of bowel, breast and ovarian cancer. Clinical examination and laboratory investigations were carried out. Primarily transvaginal sonogram (TVS) with Doppler study and CA125 were done. MRI was reserved for the cases where ultrasonogram findings

were suspicious. Risk of malignancy index (RMI) was assessed for all the cases.

DATA ANALYSIS

Statistical analysis was performed using the Statistical package for social science SPSS version 23.0. A descriptive analysis was performed for clinical features and results were presented as mean \pm standard deviation for quantitative variables and numbers (percentages) for qualitative variables.

RESULTS

In figure-1 shows age distribution of the patients where most (50%) of the patients belong to 54-57 years age group. The following table is given below in detail:

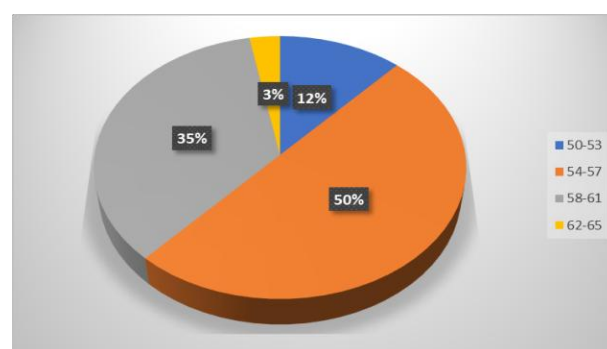


Fig-1: Age distribution of the patients

In table-1 shows distribution of the patients according to symptom and duration where 4 patients came to hospital with malignant ovarian tumor. The following table is given below in detail:

Table-1: Distribution of the patients according to symptom and duration

Symptom with duration	Number of patients
P/V/B for 3 months Mild LAP for 2 months	2
Abdominal pain for 3 days Constipation for 3 days	3
Excessive PV bleeding for 2 days	1
Weight loss for 3 months Loss of appetite for 1 month Constipation for 3 days	2
Dx came of Malignant ovarian tumor	4
Irregular PVB for 1 month Serve LAP for 5 days	3
Swelling of abdomen for 15 days Anorexia, nausea for same duration.	2
Serve LAP for last 8 hours	1

In table-2 shows pre abdominal examination of the patients where, 18% had family history of cancer, followed by 33.3% were nulliparas, 20.4% used barrier

contraceptive method. The following table is given below in detail:

Table-2: Pre abdominal examination of the patients

Pre abdominal examination	%
Previous family history of cancer	
Yes	18%
No	82%
Previous family history of cancer	
Yes	18%
No	82%
Contraceptive Method	%
None	40.7
Barrier Method	20.4
Irregularly used of injectable	14.8
Natural Method	5.6
OCP irregularly	11.1
Calender Method	1.9
Nothing	5.6
Parity	%
Nullipara	33.3
Multipara	66.7
Pre abdominal Examination	%
Inspection-Distended Palpation-Mass present	33.3
Inspection-Normal Palpation-Mass present	66.7

In table-3 shows histopathology report of the patients where 27.9% cases mucinous cyst abdomenia were found followed by 18.7% cases endometrioma, in 17.5% cases serous cyst adenoma, 5.1% cases mucinous adenocarcinomas 5.6% cases papillary

adenocarcinoma, 2.5% cases paraovarian cysts and benign cystic lesion and area of hemorrhagic infarct were reported. The following table is given below in detail:

Table-3: Histopathology report of the patients

Histopathology report	Percent
Endometrioma	18.7
Mucinous adenocarcinomas (MACs)	5.1
Serous cyst adenoma	17.5
Dysgerminoma	3.8
Dermoid cyst	13.9
Mucinous cyst abdomenia	27.9
Papillary adenocarcinoma	5.6
Paraovarian cysts	2.5
Cystadenocarcinoma poorly differentiated was dead 2 hours after admission	1.3
Benign cystic lesion and area of hemorrhagic infarct.	2.5

In table-4 shows pelvic examination of the patients where 78.3% cases mass was felt in cervix, followed by in 7.2% cases unhealthy cervix were

observed, 2.9% cases cervices were bulky. The following table is given below in detail:

Table-4: Pelvic examination of the patients

Pelvic examination of the patients	Percent
P/S/E-Condition of the cervix-health B/M/E - Mass felt through fornix	78.3
Inspection-Normal P/S/E-Condition of the cervix-health B/M/E -Bulky	2.9
Inspection-Normal P/S/E-Condition of the cervix-health B/M/E -Not felt separately	2.9
P/S/E-Unhealthy B/M/E -Mess felt through fornix	7.2
Inspection-Normal P/S/E-erosion present B/M/E -Mess felt through fornix	4.3
Inspection-Normal	1.4
Inspection-Normal P/S/E-Condition of the cervix-health B/M/E-Coming through introitus	1.4
B/M/E- Uterus cervix-irregular, hard upper border cannot delineated properly.	1.4

In table-5 shows USG report of the patients where Rt. Ovarian cyst about (10x6.6)cm cases were found 23.2% cases, followed by Rt. Adenexal mass about (12x9)cm found in 21.1% cases, 11.6% cases Large complex mass about (13.9X12.8)cm were found,

6.3% cases cystic mass about (13x10)cm in the Lt. abdenexa were found, 5.3% cases Malignant ovarian tumor and complex pelvic mass about (9.3X7)cm were found. The following table is given below in detail:

Table-5: USG report of the patients

USG report	Percent
NA	1.1
Large complex mass about (13.9X12.8)cm	11.6
Lt. adenoral complex mass about (10x8.3)cm	4.2
A Regular thick wall tumor about 15x12.4 cm in the lt. adenexa	1.1
Rt. Ovarian cyst about (10x6.6)cm	23.2
Large solid mass about (18X12)cm in the Rt Ovary	1.1
Malignant ovarian tumor	5.3
Large pelvic man Rt ovarian origin (11.1x7.4)cm	2.1
Ruptured Rt. Sided tube ovarian	1.1
Rt. Adenexal mass about (12x9)cm	21.1
Multiple large complex mass, not separated from both ovarian and moderate	1.1
A cystic mass about (13x10)cm in the Lt. abdenexa	6.3
A complex pelvic mass about (9.3X7)cm	5.3
cyst in lower abdomen about (7.1x6.6)cm	10.5
Bilateral ovarian malignancy	1.1
Mass about (10x6.8)cm	4.2
Total	100.0

In table-6 shows outcome of USG report where 32.4% cases were benign tumor and 16.2% cases

were malignant. The following table is given below in detail:

Table-6: Outcome of USG report

Outcome of USG report	Percent
NA	16.2
Benign	32.4
Malignant	16.2
Hepatic, Splenic & right metastasis	2.7
Moderate pelvic celledim	2.7
Ascites suggestive of ovarian neoplasm	10.8
Thick wall multicultural tumor about (16x10) cm	2.7
suggestive of hemorrhagic cyst {chocolate cyst}	8.1
Large fibroid	5.4
Suggestive of Rt. Adnexal complex mass	2.7
Total	100.0

In table-7 shows CT/MRI findings of the patients where 20.5% cases malignant ovarian tumor was found, followed by 5.1% cases reports were same as USG report, another 5.1% cases Rt adenexal

complex mass most likely hemorrhagic were seen, 2.6% cases metastasis to liver adenocarcinoma in ascitic fluid and a complex cystic mass (9.5x12.8x22) cm were seen. The following table is given below in detail:

Table-7: CT/MRI findings of the patients

CT/MRI findings	Percent
NA	41.0
Rt ovarian tumor	2.6
Lt Ovarian tumor	7.7
Malignant ovarian	20.5
Same to USG	5.1
Rt adenexal complex mass most likely hemorrhagic	5.1
Metastasis to liver Adenocarcinoma in ascitic fluid	2.6
A complex cystic mass (9.5x12.8x22)cm conservative	2.6
Solid ovarian tumor	5.1
10.00	2.6
Total	5.1
	100.0

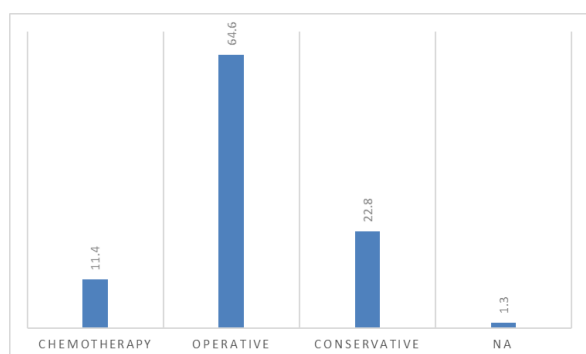
In table-8 shows FNAC report of the patients where 23.7% cases adenocarcinoma ovary were seen, followed by 13.2% cases there was a same report as USG report, 5.3% cases metastasis to liver

Adenocarcinoma in ascitic fluid and malignant ovarian tumor and metastasis of liver were seen. The following table is given below in detail:

Table-8: FNAC report of the patients

FNAC report	Percent
NA	47.4
Adenocarcinoma ovary	23.7
Large complex pelvic mass most likely malignant ovarian	2.6
Malignant ovarian tumor and metastasis of liver	5.3
Same to USG	13.2
Rt adenexal complex mass most likely hemorrhagic	2.6
Metastasis to liver Adenocarcinoma in ascitic fluid	5.3
Total	100.0

In figure-2 shows management after laboratory findings where 64.6% cases operative measurement were done and 11.4% cases chemotherapy were given. The following figure is given below in detail:

**Fig-2: Management after laboratory findings**

DISCUSSION

In one report showed that, 83.3% were aged between 51 to 60 years with mean (+SD) age 57.27 + 3.56 years, which was quite similar to our study.⁵ Where as in another study it was reported that, mean age of the patients was 61 years.⁷ In one report said that, the median age at presentation of ovarian cancer is 60 years, and the average lifetime risk for women in developed countries is about 1 in 70 [8]. Most women

diagnosed with ovarian cancer have the sporadic variety; however, a subset of ovarian cancer cases occurs in a familiar fashion [9]. In our study, most of the patients belong to 54-61 years' age group which is similar with these study.

In one study conducted study on human ovary at the University of Kentucky over 58673 women between 25 to 91 years of age. The mean ovarian volume was 6.6ml in women <30 years of age, 6.1ml in women 30-39 years, 4.8ml in those aged 40-49 years, 2.6ml in 50-59 years old and 2.1ml in women aged 60-69 years [8]. In our study we found 40% patients were from rural. Which was similar with other study [9].

In one study reported that, 12% were nulliparous and 40 (80%) were parous [10] where as in our study most of the patient's multiparas, 66.7%. Also, we found from histopathology report that, 27.9% cases mucinous cyst adenoma were found followed by 18.7% cases endometrioma, in 17.5% cases serous cyst adenoma, 5.1% cases mucinous adenocarcinomas 5.6% cases papillary adenocarcinoma, 2.5% cases paraovarian cysts and benign cystic lesion and area of hemorrhagic infarct were reported. Which was quite similar to another study where they also found mucinous cyst adenoma most common 33% cases [11-13]. In one study applied to 7 cases with elective

operation because the preoperative torsion diagnosis was not clear. As a result, the combination values of the 7 cases were 0.012, 0.027, 0.121, 0.176, 0.485, 0.789, and 0.804, respectively. The 5 cases out of 7 elective surgery cases satisfied the cut-off value of torsion [10]. Where as in our study 64.6% cases operative measurement were done and 11.4% cases chemotherapy were given. From initial USG report we found 32.4% cases were benign tumor and 16.2% cases were malignant. Whereas from CT scan report we found 20.5% cases malignant ovarian tumor was found, followed by 5.1% cases reports were same as USG report, another 5.1% cases Rt adnexal complex mass most likely hemorrhagic were seen, 2.6% cases metastasis to liver adenocarcinoma in ascitic fluid and a complex cystic mass (9.5x12.8x22) cm were seen. Also, from FNAC report 23.7% cases adenocarcinoma ovary were seen, followed by 13.2% cases there was a same report as USG report, 5.3% cases metastasis to liver Adenocarcinoma in ascitic fluid and malignant ovarian tumor and metastasis of liver were seen. Where as in one study found that in 54% cases benign tumor and right ovary was normal, and no ascites was seen [11]. Which is quite similar to our study where from pre-operative findings most of the cases were benign tumor, 48.5%.

CONCLUSION

Ovarian tumors are most commonly occurred in middle aged women in the middle-income group. The parous women are most commonly suffering from ovarian tumor. Also, precise examinations can detect ovarian cancer at early stages, and that survival is increased in those women whose ovarian cancer was detected with screening and who undergo standard treatment.

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