ORIGINAL ARTICLE

Study Of Prevalence Of Ovarian Tumours Among Ovarian Mass Lesions In Tertiary Rural Hospital.

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ABSTRACT:

Background: Ovarian tumor is one of the most common gynecological tumors seen in female although there are different types of ovarian tumor but epithelial ovarian cancer is the fifth most common cause of cancer death in women. It is often called the "silent killer" because the disease is not often detected until it reaches an advance stage.

Methods: This observational study conducted on 40 patients from March 2017 to March 2018 in the Department of Obstetrics and Gynaecology. Clinical details of the patients included age, gynaecological and obstetric history, presenting symptoms, and surgery details. Histopathological reporting was done at our Pathology department.

Results: Out of total 40 patients with ovarian tumours studied 49.2% were > 60 years of age group, most of them were nullipara (55%), 55% with ovarian tumours presented after one-year development of symptoms. Most of the symptoms were vague and nonspecific. Benign tumours were the most prevalent (80%), 20% were malignant tumours and 0% were borderline. Histological pattern of distribution of ovarian tumour shows that most of ovarian tumour were surface epithelial tumour (22 patients) followed by germ cell tumour (18 patients). Age wise distribution of study population showed that most of the surface epithelial tumour was more common in 3rd to 5th decade while most of germ cell tumour were more frequent in 2nd and 3rd decade.

Conclusion: For better prognosis and patient survival, early detection and treatment is mandatory, which may reduce mortality. There is need to increase awareness of population. Abdominal and pelvic bimanual examination should be carried out in every patient presenting with gynecological problem. Appropriate investigations in post-menopausal women in early period to diagnose the disease at an early stage.

Keywords: Germ cell tumour, Ovarian tumour, Surface epithelial tumour

Introduction:

Ovarian tumor is one of the most common gynecological tumors seen in female although there are different types of ovarian tumor but epithelial ovarian cancer is the fifth most common cause of cancer death in women. (1) It is often called the “silent killer” because the disease is not often detected until it reaches an advanced stage. Due to its anatomical location, such ovarian tumors may remain unnoticed for a long period of time. (2,3) Ovarian cancer usually affects the age of 65 years or older more frequently than younger women, they are not always malignant, but, the incidence of malignancy is about 15% -25% in different parts of the world. (4)These tumors behave in diverse ways and are generally not detected until they get large size. (5) Ovarian tumors may be cystic or solid in consistency. Most of the benign tumors are cystic but 80% of solid ovarian tumors are malignant. (3,6) There are a number of risk factors associated with their origin. None of these has been yet proved except for age and parity. The relative risk for ovarian malignancy increases significantly after the age of 40 years. (7,8) An early menarche and late menopause are associated with an increased risk. Use of oral contraceptives is associated with a reduced risk of benign ovarian neoplasms.(9,10) Common symptoms include abdominal distention,abdominal and pelvic pain,and dyspepsia and also increased the frequency of urine.Family history of ovarian and breast cancer has strong link and consider as major risk factor for ovarian cancer.(11-13). One theory is that ovarian carcinoma arises from endometriosis; it is the presence of endometrial tissue rather than uterus.(14).

Methods:

This observational study conducted on 40 patients from March 2017 to March 2018 in the department of obstetrics and gynaecology. All cases with ovarian mass lesions treated surgically were included in the study. All patients who refused to participate or opted for conservative treatment. Similarly, incomplete filled proforma or patient lost to follow up with histology reports are excluded from the study.

The diagnostic evaluation was done with investigations for exclusion of malignancy with USG, tumour markers, CT and MRI wherever indicated. Clinical details of the patients included age, gynaecological and obstetric history, presenting symptoms, and surgery details. Histopathological reporting was done at our Pathology department.

The histological characterization of ovarian tumour was done according to World Health Organization Classification of Ovarian tumours.

Results:

Out of 40 patients with ovarian tumours, most of patients 50% were >60 years of age while 5% in the age group of 30-40 years.

Age group (years)	Number of patients	Percentage
≤ 30	6	15%
31-40	2	5%
41-50	3	7.5%
51-60	9	22.5%
>60	20	50%
TOTAL	40	100%

Table 1: Frequency of age group of study participants

Out of 40 patients of ovarian tumours, 55% were nullipara while 25% were primipara and 20% were multipara.

Age group	Number of patients	percentage
Nullipara	22	55%
Primipara	10	25%
Multipara	8	20%
TOTAL	40	100%

Table 2: parity of women

Duration of symptoms	Number.of patients	percentage
<6 months	6	15%
6 months- 1 year	12	30%
>1 year	22	55%
TOTAL	40	100

Table 3: Duration of symptoms

Above table shows that 55% with ovarian mass presented after one year development symptoms for delay were non-specific symptoms.

Early diagnosis of ovarian cancer is a challenge to the gynaecologist due to the fact that symptoms in early disease were vague symptoms and non-specific.

Symptoms	Number.of patients	Percentage
Asymptomatic	6	15%
Nausea	7	17.5%
Vomiting	1	2.5%
Weight gain	3	7.5%
Abdominal mass	15	37.5%
Increased urinary frequency	8	20%
TOTAL	40	100

Table 4: Frequency of various symptoms of study participants.

Out of total 40 patients of ovarian tumours, 80% were benign, 20% were malignant and none were borderline tumours.

Type	Number of patients	Percentage
Borderline	0	0%
Benign	32	80%
Malignant	8	20%
TOTAL	40	100

Table 5: Type of ovarian tumour

Histological pattern of distribution of ovarian tumour shows that most of ovarian tumour were surface epithelial tumour (22 patients) followed by germ cell tumour (18 patients).

Classes of tumours	Total	Benign	Malignant
Surface epithelial	22	16	6
Germcell	18	16	2

Table 6: Histopathological distribution of ovarian tumours

Age wise distribution of study population showed that most of the surface epithelial tumours were more common in the 3rd to 5th decade while most of germ cell tumours were more frequent in 2nd and 3rd decade.

Classes of tumors	Total	Types	<20	20-29	30-39	40-49	50-59	≥60	Total
Surface epithelial type	22	Benign	1	2	7	3	2	1	16
		Malignant	-	-	1	1	3	1	6
Germ cell type	18	Benign	2	12	1	1	-	-	16
		Malignant	-	2	-	-	-	-	2

Table 7: Frequency of age wise distribution

Discussion:

The ovary is a dynamic complex structure in embryology, histology, steroidogenesis, with its potential for malignancy, with its different components like germ cells, follicular cells and mesenchymal tissue each having different capability to form various tumours.

Present study reveals that the presentation of ovarian tumours is variable. Common symptoms were abdominal mass, pelvic/abdominal pain. Other symptoms are dyspepsia, urinary frequency and urgency, loss of weight and ascites, which are more common in malignant tumours. These findings are in accordance to other studies.

In this study, 15% of patients were asymptomatic while Muhabat Q et al studied 19.6% patients were asymptomatic.(15) In the present study, 55% of women who had ovarian tumor were nullipara while 20% multipara. However, in a study conducted by Khan I et al, at KEMU/Lady Willingdon hospital, 58.15% women who had ovarian tumor were multipara.(16) In another population based case control study, Ernstaff T et al. found that the risk of ovarian tumors was higher in multiparous, a woman which is comparable to results of the present study. (17)

In the current study, 55% presented with ovarian tumour after 1 year of development of symptoms reason of delay were nonspecific symptoms, inadequate health care system, omission of pelvic examination at presentation, illiteracy and poverty. Muhabat Q et al studied 43% patients were presented with ovarian tumour after >1 year of symptoms. (15)

In the present study, benign neoplasm were 80%, borderline 0% and malignant neoplasia were 20%. Similarly, in a study conducted by Yogambal M et al, they studied out of 402 patients with ovarian mass, benign neoplasm were 78.6%, borderline 0.75% and malignant neoplasia were 20.65%.(18)This study correlates with present study. Another study done by Makwanal H et al, they found benign neoplasm were 77.14%, borderline 3.57% and malignant neoplasia were 19.29%.(19) This study also correlates with our study. In present study surface epithelial tumors were commonest, followed by germ cell tumors.

SUMMARY

- Study conducted on 40 patients who were treated with surgery for ovarian tumours
- Most of the patients were >60 years age group(49.2%)
- Most of the patients were nulliparous (55%) and 55% patients with ovarian mass presented after one year development of symptoms.
- Majority of symptoms were vague and nonspecific .
- Benign ovarian tumours were the most prevalent (80%), 20% were malignant ovarian tumours and none of them were borderline tumors.
- Histological pattern of distribution shows that Surface epithelial tumours constitute 22 patients in

which 16 patients (72.7%) were benign and 6 patients (27.3%) were malignant followed by Germ cell tumours constitute 18 patients in which 16 patients (88.8%) were benign and (22.2%) were malignant.

- Age wise distribution of study population showed that most of the surface epithelial tumours were more common in the 3rd to 5th decade while most of germ cell tumours were more frequent in 2nd and 3rd decade.

Conclusion:

Most of the tumours were of surface epithelial tumour. Mature cystic teratoma was most common benign germ cell tumour. While serous cell carcinoma was commonest malignancies. Benign tumours were more common than malignancies in all age groups. Malignant surface epithelial tumours were mostly seen after 4 decades while malignant germ cell tumours were observed in a younger age group. For better prognosis and patient survival, early detection and treatment is mandatory, which may reduce mortality. There is a need to increase awareness of population. Abdominal and pelvic bimanual examination should be carried out in every patient presenting with gynecological problem. Appropriate investigations in post-menopausal women in early period to diagnose the disease at an early stage.

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