STUDY OF CLINICAL AND HISTOPATHOLOGICAL PRESENTATION OF OVARIAN MASSES IN TEACHING HOSPITAL

G. Shobha[1], P. Supriya[2], Nissy Jacintha B[3]

[1]*Professor, Department of Obstetrics and Gynaecology, Gandhi Medical College.*
[2]*Assistant Professor, Department of Obstetrics and Gynaecology, Gandhi Medical College.*
[3]*Senior Resident, Gandhi Medical College.*

ABSTRACT

OBJECTIVE

To study the clinical and histopathological presentation of ovarian masses.

METHOD

Hospital based retrospective study done on 200 patients in the Department of Gynaecology, Gandhi Hospital, Secunderabad, who are clinically and sonologically diagnosed to have ovarian masses during the period of January 2014 to September 2015.

RESULTS

The prevalence of ovarian masses in our study was 0.6%. Among the 200 cases, 60.5% were neoplastic and 39.5% were non-neoplastic. Among neoplasms 90% were benign, 8.26% malignant and 1.65% borderline. Serous cystadenoma was the commonest benign tumor (55%) followed by Mucinous (27.5%) and Dermoid (15.5%). Most common malignant ovarian tumor was Serous cystadenocarcinoma (60%).

CONCLUSION

Ovarian neoplasms have twice the incidence of non-neoplasms. Maximum incidence of malignancy is in between 40-49 years of age group. Non-specific abdominal symptoms should be given more importance, as it may be the only clue to the underlying malignancy. So effective clinical, biochemical and radiological diagnosis helps in early intervention to increase the survival rates in malignancy. Sixty million people are affected with glaucoma worldwide and more than 20 million have PACG. Of these more than 5 million with PACG are blind, which is twice more than POAG. Early detection and timely treatment with Nd:YAG laser iridotomy and associated complications determine visual outcome.

KEYWORDS

Ovarian Masses, Clinical, Histopathological Presentation.

INTRODUCTION

Among women worldwide, ovarian cancer is the sixth most common cancer. The age standardized incidence rate worldwide is 6.6/100,000. Ovarian cancer is the seventh leading cause of cancer deaths. The age standardized mortality rate is 4.0/100,000.[1] In most of the population-based cancer registries in India, ovarian cancer is the third leading site of cancer among women after cervix and breast cancer. The age-adjusted incidence rates of ovarian cancer vary between 5.4 and 8.0 per 100,000 population in different parts of the country.[2] The Age Specific Incidence Rate (ASIR) for ovarian cancer revealed that the disease increases from 35 years of age and reaches a peak between the ages 55-64. The trend analysis by period showed an increasing trend in the incidence rate of ovarian cancer in most of the registries with a mean annual percentage increase in ASR ranged from 0.7% to 2.4%.[3]

The 5-year relative survival rate is around 25.4% for ovarian malignancy.[4] Higher survival is noted in patients younger than 35 years and with localized early-stage disease. Clinical, biochemical and radiological assistance was used for earlier detection and accurate diagnosis, thereby to reduce the burden of morbidity and mortality. So this study has been done to note the clinical presentation and histopathological pattern of ovarian masses in our hospital over 2 years.

METHODOLOGY

This is a hospital based retrospective study done on 200 patients in the Department of Gynaecology OPD, Gandhi Hospital, Secunderabad who are clinically and sonologically diagnosed to have ovarian neoplasms during the period of January 2014 to September 2015. Patients with ovarian masses, who were surgically managed, were included in the study. Patients with non-ovarian masses and those with ovarian masses who were conservatively managed were excluded. Clinical details such as patient's age, age of menarche, post-menopausal status, obstetric history, presenting symptoms and surgery details were noted. Histopathological examinations of the excised specimens were conducted by the Pathology Department of our hospital by appropriate stains (Hematoxylin and Eosin). Based on histopathological observations, the ovarian masses were

classified as benign and malignant and their incidence were studied.

RESULTS

Out of the total gynaecology OPD, prevalence of ovarian masses which had surgical intervention was 0.6% (n=200) and that of ovarian neoplasms was 0.4%. Among the ovarian masses, neoplasms accounted for 60.5% (121/200) and non-neoplastic lesions 39.5% (79/205). Out of the neoplastic lesions, 90% (109/121) were benign, 8.26% malignant (10/121) and 1.65% (2/121) borderline lesion.

Maximum number of benign cases (40/107) was noted in the 30–39 years age group and the malignant cases were more common (6/12) in the 40-49 years age group. The distribution of ovarian masses in different age groups is shown in Table 1 and Chart 1.

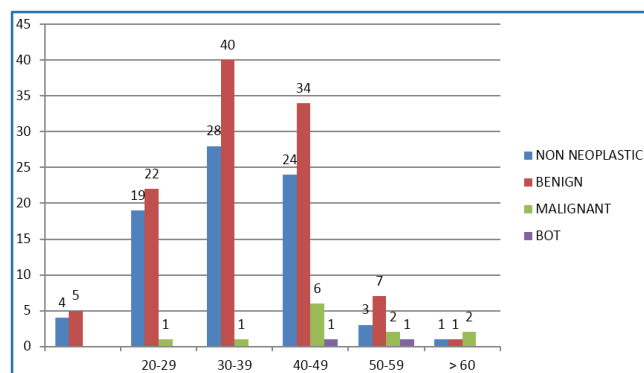| Age Distribution	Non neoplastic	Benign	Malignant	Borderline
10 – 19 yrs	4	5	-	-
20 – 29 yrs	19	22	1	-
30 – 39 yrs	28	40	1	-
40 - 49 yrs	24	34	6	1
50 - 59 yrs	3	7	2	1
60 yrs	1	1	-	-
Table 1: Age Distribution				

Chart 1: Demographic details, parity and history of sterilization of the study group are shown in Table 2

Parameters	Non neoplastic	Benign	Malignant	BOT
Age of menarche 11-12 13-14 15-16	40 30 9	40 54 15	6 3 1	1 1 Nil
Age group Reproductive Post menopausal	74 5	97 12	7 3	1 1
Sterilization Yes No	72 7	100 9	10 Nil	2 Nil
Parity Nulligravida 1,2 >3	2 74 2	44 32 33	Nil 8 2	Nil 1 1
Table 2: Demographic and Obstetric profile among ovarian masses				

Among the non-neoplastic masses, the commonest was endometriotic cyst (29%). Histopathological pattern of non-neoplastic ovarian masses is shown in Chart 2.
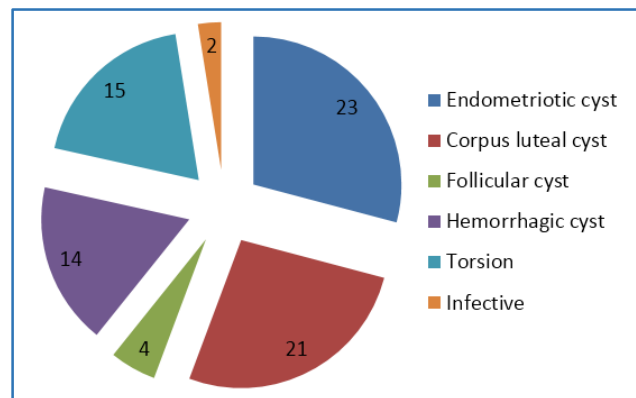

Chart 2: Histopathological pattern of non-neoplastic ovarian masses

Symptoms	Non neoplastic	Benign	Malignant
Pain abdomen	70%	66%	40%
Mass abdomen	Nil	8%	2%
Abdominal symp	Nil	2%	30%
Menstrual symp	30%	20%	4%
Urinary symp	Nil	4%	Nil
Constitutional	Nil	Nil	20%
Asymptomatic	Nil	Nil	4%
Table 3: Clinical Presentation of Ovarian Masses			

Abdominal pain followed by abnormal menstrual pattern was the predominant presenting symptom in patients with both non-neoplastic and benign ovarian masses. On the contrary, malignant group predominantly presented with vague abdominal and constitutional symptoms.

Serous cystadenoma (55%) followed by Mucinous cystadenoma (27.5%) and Benign cystic teratoma (15.5%) were the commonest benign ovarian tumors. Of the two Borderline Ovarian Tumors (BOT), two were Serous subtype. Of the 12 malignant ovarian tumors, 8 were Surface epithelial tumors, 2 were non-epithelial tumors. Among the surface epithelial tumors, Serous cystadenocarcinoma was the most common (60%) followed by Mucinous cystadenocarcinoma (20%).

DISCUSSION

In the present study, out of total Gynaecology OPD incidence of ovarian masses which had surgical intervention is 0.6% and that of ovarian neoplasms is 0.4%. Ovarian neoplasms have almost twice the incidence of non-neoplastic lesions. Maximum numbers of ovarian malignancies were found in the 40-49 years age group, which is comparable with Soumini Gangaraju, et al.[5] study. Results from European studies show that the Age-specific incidence rates rise sharply from around 40–44 years, peaking among women in their 70s and 80s. The number of cases is highest among women in their 60s and 70s,

accounting for almost half the diagnoses.[6] Thus, the increasing trend of ovarian neoplasms in younger age group in our population is noted.

Nulliparity is not a significant risk factor for ovarian neoplasms in our study because of small number. Among the ovarian neoplasms, 90% were benign and 8.26% were malignant. These findings are comparable with Jha, et al.[7] study. Pain in abdomen is the commonest presenting symptom both in non-neoplastic and benign ovarian masses, whereas vague abdominal symptoms and constitutional symptoms were predominant in the malignant group. Asymptomatic presentation is more common in malignancy compared to the benign neoplasms.

Out of benign tumors, Serous cystadenoma accounted for 55%, Mucinous cystadenoma 27.5% and Mature cystic teratoma 15.5%. This is comparable with Manivasakan et al.[8] study.

Of the malignant tumors, Serous cystadenocarcinoma accounted for 60% followed by 20% Mucinous cystadenocarcinoma, which is similar to the Jha et al.[7] study. Asymptomatic nature and vague constitutional complaints of the malignant ovarian tumors are responsible for their late presentation and thereby its mortality and morbidity.

CONCLUSION
Ovarian neoplasms incidence is twice that of non-neoplastic lesions. Maximum incidence of malignancy is in between 40-49 years of age group. Non-specific abdominal symptoms should be given more importance, as it may be the only clue to the underlying malignancy. So effective clinical, biochemical and radiological diagnosis helps in early intervention to increase the survival rates in malignancy.

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