Original Research Article

A retrospective study on ovarian neoplasms in a tertiary health care center

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Abstract

Background: Ovarian cancers have the highest mortality of all gynecological malignancies. It is very difficult to diagnose it in early stage due to its non specific symptoms and even asymptomatic nature in many cases. Ovarian tumors are also a constant source of confusion to the pathologists because of wide spectrum of clinical and morphological features. **Aim:** to study the frequency, clinical and pathological aspectsS of ovarian tumors. **Materials and Methods:** This case series covers two year period from July 2017 to June 2019 at Santhiram Medical College and General Hospital, Nandyal, Kurnool. It is a retrospective review of all cases diagnosed with ovarian masses. **Results**: Out of 50 cases, 12(24%) were malignant and 38(76%) were benign masses. Majority were in the age group of 41 to 50 years accounting to 56%. Surface epithelial tumors (72%) were more common followed by germ cell tumors(26%). 32% presented with mass per abdomen while 28% came with non specific complaints and diagnosed with ovarian mass after further evaluation. Risk factors were identified in about 7(14%) cases. 5(10%) were nulliparous. 2(4%) had family history of 1st degree relative with ovarian cancers. In our study none of the patients had history of oral contraceptive usage even for atleast 6 months. Out of 12 malignant tumors, only 10 cases had significantly elevated tumor markers. CA-125 was elevated in 7 cases and 3 cases had significantly elevated alpha feto protein levels. The other 2 cases were both clinically and radiologically pointing towards malignancy and hence operated.
Key Words: surface epithelial tumors, germ cell tumors, alpha feto protein.

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INTRODUCTION

Ovarian cancers have the highest mortality of all gynecological malignancies. Worldwide , there are 2,39,000 new cases and 1,52, 000 deaths from ovarian cancer each year.[1] Despite improvements in survival rates over the last 40 years, two thirds of the women still die within 10 years of diagnosis.[2] Five Year survival is less than 20% in woman diagnosed with advanced stage(III or IV) invasive epithelial ovarian cancer, but exceeds 90% in those detected at stage I. The increased risk of ovarian cancer particularly of surface epithelial tumors is associated with use of hormone replacement therapy(HRT), tobacco consumption, family history of ovarian cancer and breast cancer, mutation of BRCA1 and BRCA2. The protective factors are the use of oral contraceptives and multiparity not only in general population but also significantly reduces the risk in BRCA1 and BRCA2 carriers.[3] Of all the gynecological cancers, ovarian tumors represent the greatest challenge to clinicians because it is very difficult to diagnose it in early stage due to its non specific symptoms and even asymptomatic nature in many cases. On the other hand, ovarian tumors at an advanced stage are easy to diagnose but associated with poor prognosis despite advances in surgery, chemotherapy, and more recently, targeted therapy. Ovarian tumors are also a constant source of confusion to the pathologists because of wide spectrum of

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clinical and morphological features. Further, certain non neoplastic lesions of ovary frequently form a pelvic mass and often associated with abnormal hormonal manifestations, thus potientially mimicing ovarian neoplasm. Thus we conducted the study to analyse the frequency and clinicopathological spectrum of ovarian tumors.

MATERIALS AND METHODS

nd underwent surgery for it. Sample size is 50 cases. This case series cover two year period from July 2017 to June 2019. It is a retrospective analysis of all patient case files diagnosed with ovarian masses.

INCLUSION CRITERIA

1. All ovarian tumors which had been operated during the period of study.
2. Those who consented for the study.

EXCLUSION CRITERIA

1. Tumors that were not operated and those under followup.

SOURCE OF DATA

Clinical data regarding age, clinical features, risk factors and protective factors was collected from patient case files after obtaining clearance from Institutional Ethics Committee. Gross findings and pathological diagnosis were obtained from histopathology record section of the institute and classified according to WHO classification of tumors.

RESULTS

TABLE 1: NATURE OF MASS

TYPE(n=50)	NUMBER	PERCENTAGE
BENIGN	38	76%
MALIGNANT	12	24%

TABLE 2: AGE DISTRIBUTION PATTERN

AGE GROUP IN YEARS	NUMBER	PERCENTAGE
0-10	0	0%
11-20	3	6%
21-30	6	12%
31-40	3	6%
41-50	28	56%
51-60	3	6%
>60	7	14%

TABLE 3: FREQUENCY OF HISTOLOGICAL DISTRIBUTION OF OVARIAN MASSES

TYPE	NUMBER	PERCENTAGE
SURFACE EPITHELIAL TUMORS	36	72%
GERM CELL TUMORS	13	26%
SEX CORD STROMAL CELL TUMOR	1	2%
METASTATIC	0	0%

TABLE 4: PRESENTING COMPLAINTS

PRESENTING COMPLAINT	NUMBER	PERCENTAGE
ABDOMINAL MASS	16	32%
NON SPECIFIC COMPLAINTS	14	28%
PAIN ABDOMEN	8	16%
MENSTRUAL SYMPTOMS	12	24%

Out of 50 cases, 12(24%) were malignant and 38(76%) were benign masses. Majority were in the age group of 41 to 50 years accounting to 56%. Surface epithelial tumors (72%) were more common followed by germ cell tumors(26%). 32% presented with mass per abdomen while 28% came with non specific complaints and diagnosed with ovarian mass after further evaluation. Risk factors were identified in about 7(14%) cases. 5(10%) were nulliparous. 2(4%) had family history of 1st degree relative with ovarian cancers. In our study none of the patients had history of oral contraceptive usage for atleast 6 months. Out of 12 malignant tumors, only 10 cases had significantly elevated tumor markers. CA-125 was elevated in 7 cases and 3 cases had significantly elevated alpha feto protein levels. The other 2 cases were both clinically and radiologically pointing towards malignancy and hence operated.

DISCUSSION

In the present study, maximum number of cases were noted in the age group of 41 to 50 year (56%), that is in accordance with a similar study by Agarwal *et al* and Haroon *et al*.[5] Irrespective of nature of ovarian tumors the most common presenting complaint is lump in abdomen, followed by non specific complaints, which is slightly contradicting the results by Waseem *et al*, where lump in abdomen is followed by pain abdomen. Non specific complaints like ascites, anorexia, and weight loss were commonly associated with malignant tumors which was similar to results by Bhuvanesh and Logambal and Pilli *et al*.[4] The most common histological type was surface epithelial tumors in our study which is similar to results by Agarwal *et al*.

CONCLUSION

Ovarian tumors exhibited the wide spectrum of clinical and histological features they are the second most common cancers of female genital tract. Most of the ovarian tumors were benign and Surface Epithelial Tumors were the most common histological type followed by germ cell tumors. More number of cases were seen between 41 to 50 years of age.

Majority of the patients presented with mass per abdomen, while those with malignant tumors presented with non specific complaints. In most of the cases risk

factors were not identifiable.In the era of immunohistochemistry and molecular pathology, where the diagnosis is based on these, in the institutes with limited resources, these clinicopathological features are very helpful for diagnosis and proper management of patients.

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