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Clinico-pathological analysis of ovarian tumors: A retrospective study

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Abstract

Background: Ovarian cancer is the second most common gynecologic cancer yet the commonest cause of gynecologic cancer deaths. The present study was conducted to determine clinical and pathological findings of ovarian cancers.

Materials & Methods: The present study was conducted on 224 cases of ovarian cancer reported to the department and those were diagnosed both clinically and histopathologically. Slides were retrieved from the department and assessed.

Results: Age group 20-40 years had 33 cases, 40-60 years had 76 and >60 years had 115 cases. The difference was significant (P < 0.05). The most common histologic type was surface epithelial tumor (134) followed by germ cell tumor (50), sexcord stromal tumor (25) and secondaries (15). The difference was significant (P < 0.05). The common clinical symptoms were abdominal swelling seen in 78%, discomfort in 54%, cachexia in 27%, dysmenorrheal in 12%, Metrorrhagia in 35% and nonspecific symptoms in 10% cases. The difference was significant (P < 0.05).

Conclusion: Author found that ovarian tumors are common in females. The prevalence is higher among aged women. Abdominal swelling is the commonest finding.

Keywords: Clinical, Ovarian, pathological

1. Introduction

Ovarian cancer is the second most common gynecologic cancer yet the commonest cause of gynecologic cancer deaths. The main reason for this poor outcome is the inability to diagnose the disease early. Hence, majority of the patients present with late stage disease. Ovarian tumors are common forms of neoplasia in women. Ovarian tumors account for about 30.0% of female genital cancers. Asian countries have rate of 2- 6 new cases per 1,00,000 women per year.2 Ovarian carcinoma is the fourth most common female cancer and the fourth leading cause of death among cancer deaths in female [1].

Early manifestations of ovarian carcinoma are vague and non-specific with patients complaining of lower abdominal discomfort, dyspepsia, indigestion and other mild lower gastrointestinal disturbances. Although ovarian cancers affect all age groups, primarily it is seen in postmenopausal women. Perimenopausal women are also at higher risk of developing ovarian malignancies as postmenopausal women. Variability is the hallmark of the menopausal transition and no operational definition was given of those features by the WHO [2].

Studies indicate that most cases are seen in the sixth decade with a mean age of 59.5 years. Risk factors associated with development of ovarian cancer include nulliparity or low parity, early menarche, ovarian dys-genesis, environmental exposure to asbestos and talc, and high fat intake. Women with breast cancer have twice the expected risk of developing subsequent ovarian carcinoma [3]. The present study was conducted to determine clinical and pathological findings of ovarian cancers.

2. Materials & Methods

The present retrospective study was conducted in the department of general pathology. It comprised of 224 cases of ovarian cancer reported to the department and those were diagnosed both clinically and histopathologically. The study protocol was approved from the institutional ethical committee.

General information such as name, age, gender, clinical features etc. were recorded from case history proforma. Slides were retrieved from the department and assessed. Two pathologists studied the slides and mean of them was considered positive. Results thus obtained were

subjected to statistical analysis. P value less than 0.05 was considered significant.

3. Results

Table 1: Age wise distribution of cases

Age group (years)	Number	P value
20-40	33	
40-60	76	0.01
>60	115	
Total	224	

Table 1 shows that age group 20-40 years had 33 cases, 40-60 years had 76 and >60 years had 115 cases. The difference was significant (P< 0.05).

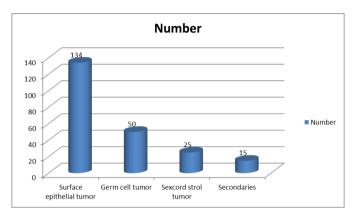


Fig 1: Distribution of ovarian neoplasms according to histological type

Fig I shows that most common histologic type was surface epithelial tumor (134) followed by germ cell tumor (50), sexcord stromal tumor (25) and secondaries (15). The difference was significant (P< 0.05).

Table 2: Clinical features in patients

Clinical features	%	P value
Abdominal swelling	78%	0.01
Discomfort	54%	
Cachexia	27%	
Dysmenorrhea	12%	
Metrorrhagia	35%	
Nonspecific symptoms	10%	

Table 2 shows that common clinical symptoms were abdominal swelling seen in 78%, discomfort in 54%, cachexia in 27%, dysmenorrheal in 12%, Metrorrhagia in 35% and nonspecific symptoms in 10% cases. The difference was significant (P< 0.05).

4. Discussion

Ovarian cancers are usually fatal when diagnosed because of delay in diagnosis. Symptoms are usually absent in early stages and nonspecific in advanced cases. Common presenting symptoms are abdominal lump or distension of abdomen, pain in abdomen, pressure effects and menstrual disturbances. Gynecologists receive the major load due to ovarian lesions not only because of the anatomical location but also these tumors may remain unnoticed for long period of time. Not only primary, the ovary is the favorite site to get metastatic deposits from other abdominal cancers [4]. The present study was conducted to determine clinical and pathological findings of ovarian cancers. In present study, we assessed 224 cases of ovarian tumors. We

observed that age group 20-40 years had 33 cases, 40-60 years had 76 and >60 years had 115 cases. This is similar to Jordan *et al.*. $^{[5]}$.

Yasmin *et al.*, ^[6] found that among 120 cases, majority 86 (71.6%) were benign, but alarming number 30 (25.0%) were malignant, remaining 4 cases were borderline. The commonest histological pattern observed in the study was epithelial tumors (61.6%). The commonest benign tumor was serous cyst adenoma, while; the commonest malignant tumors were granulosa cell tumor and endometrial carcinoma. Epithelial tumors were commonest variety of ovarian tumors followed by germ cell tumors.

We observed that common histologic type was surface epithelial tumor (134) followed by germ cell tumor (50), sexcord stromal tumor (25) and secondaries (15). Gupta *et al.*, ^[7] A total 52 ovarian tumors were included in this study. Most common histological types were surface epithelial tumors (92.3%), out of which 54.2% were benign, 41.7% were malignant and 4.2% were borderline. Serous cystadenoma was the most common benign tumor and serous cystadenocarcinoma was the commonest malignant tumor. Abdominal discomfort was the commonest presenting symptom both in benign and malignant tumors (85.7% and 45.4% respectively). Most of the malignant tumors were presented in stage III (50%), followed by stage II (27.3%).

Various studies revealed that malignant ovarian tumor is common after 40 years. Surface epithelial tumors account for majority of malignancies. Ovarian cancers are usually fatal when diagnosed because of delay in diagnosis. Symptoms are usually absent in early stages and nonspecific in advanced cases [8]. Common presenting symptoms are abdominal lump or distension of abdomen, pain in abdomen, pressure effects and menstrual disturbances. In our study, common clinical symptoms were abdominal swelling seen in 78%, discomfort in 54%, cachexia in 27%, dysmenorrheal in 12%, Metrorrhagia in 35% and non specific symptoms in 10% cases. This is in agreement with Murad *et al.*, ^[9].

Rat *et al.*, ^[10] found that the mean age of patients with ovarian cancer in this study was 49.8 years with most of the cases (82.5%) occurring after the age of 40. This might be due to the lower life expectancy in this part of the world, therefore more cases are seen in the lower age group. As expected, benign tumors occurred more frequently in the younger age groups. Nulliparity is a well-documented risk factor for ovarian cancer. The limitation of the study is small sample size. Moreover, further classification into benign and malignant tumors was not performed.

5. Conclusion

Author found that ovarian tumors are common in females. The prevalence is higher among aged women. Abdominal swelling is the commonest finding.

6. References

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