A STUDY ON CLINICO PATHOLOGICAL ANALYSIS OF OVARIAN TUMOURS IN JLNMCH, BHAGALPUR

Pathology

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ABSTRACT

Aim: Ovarian tumours are the cause of highest mortality in female. Pathological examination is the gold standard to assess the treatment modalities and prognosis of various tumours. In this study we aim to analyse the ovarian tumours clinicopathologicaly. Methods: In this study, 60 cases of ovarian tumours were studied between April 2016 to March 2017 in department of pathology, JLNMCH, Bhagalpur. Thorough pathological analysis of ovarian tumours done. Results: Out of 60, 50 were benign but 08 were malignant and 02 were borderline. Most commonly the tumours were of epithelial types. The tumours can occur at any age. The commonest benign tumor was serous cyst adenoma, while; the commonest malignant tumours were serous cystadenocarcinoma and mucinous cystadenocarcinoma. We observed high number of malignancy. Conclusion-Ovary is the most common site for primary and metastatic tumours. Due to its complex structure, ovarian neoplasm's are of diverse histological types. By histopathological analysis, the exact morphological type can be diagnosed, which will help the gynaecologist for proper management.

KEYWORDS:

Ovarian tumours, serous cyst adenoma, granulosa cell tumor, morphological type

Introduction-

Ovarian cancer is the second most common gynaecologic cancer yet the commonest cause of gynaecologic 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. 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. Abdominal pain, swelling or a large palpable mass, when present, signify advanced stages of the disease. Determination of various histologic patterns of ovarian tumours is very important in diagnosis, prognosis as well as treatment of ovarian tumours. Prognosis of the tumours can also be predicted from the degree of differentiation of the tumours. Primary tumours are classified into surface epithelial tumours, germ cell tumours, sex cord stromal tumours, germ cell sex cord stromal tumours, tumours of rete ovarii and miscellaneous tumours of which surface epithelial tumours are most common. The stage and laterality of the tumour also indicates their nature for example, tumours in the sex cord stromal category are almost always confined to a single ovary. Western 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 dysgenesis, environmental exposure to asbestos and talc, and high fat intake. 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. In this study we tried to find out the histopathological patterns, which are more prevalent in our population. In spite of significant advances in imaging modalities, sometimes they are also misleading. Cytological interpretation of aspirates from ovary is most challenging and immunohistochemistry provides a functional correlation for the traditional morphological classification. Natural history and response to treatment vary considerably from one group of tumor to others, especially in the area of chemotherapy and radiotherapy. Hence an accurate histology is often a critical factor in acheiving an optimum treatment response. As there are no screening tests or tumor markers, histopathology plays a key role in detection of ovarian cancer.

Material and Methods

In this study, 60 cases of ovarian tumours were studied between April 2016 to March 2017 in department of pathology, JLNMCH, Bhagalpur. Thorough pathological analysis of ovarian tumours done. The gross specimens received were fixed in 10% formalin for 12-24 hours and specimen multiple sections were taken. The sections were prepared using paraffin technique and were stained with H & E stain. Special stains like Periodic Acid Schiff (PAS), reticulin stains were done whenever necessary.

Results

Out of 60, 50 were benign but 08 were malignant and 02 were borderline. The tumours occur at age group between 5th decade to 6th decade.

The commonest benign tumor was serous cyst adenoma, while; the commonest malignant tumours were serous cystadenocarcinoma and mucinous cystadenocarcinoma. We observed high number of malignancy.

Type	Benign number	Malignant number
Serous	28	04
Mucinous	22	04
Endometroid	0	0
Clear cell	0	0
Total	50	08

Most commonly the tumours were of epithelial types.

Type	Number
Surface epithelial tumor	37
Germ cell tumor	13
Sexcord stromal tumor	06
Secondaries	04

DISCUSSION:

Among histopathological patterns the commonest category of the ovarian tumors encountered in out series was epithelial tumors followed by germ cell tumors. The most common benign tumor was serous serous cystadenoma. Serous cystadenomas were shown to be the commonest by Thanikasalam among the Indians and teratomas among the Malays and Chinese. Serous tumors were found to be more common than mucinous, similar results were reported by Prabharkar et al. Histologically, 129 ovarian lesions were classified according to WHO classification. Present study results correlated with studies by Kar et al and Pilli et al but not with Gupta SC et al which showed relatively more number of germ cell tumors. Among the individual tumors, the commonest benign epithelial tumors were serous cystadenoma, followed by mucinous cystadenoma & mature cystic teratoma. Among primary malignant tumors serous cystadenocarcinoma and mucinous cystadenocarcinoma. Similar findings were seen in studies by Maheshwari V et al and Gupta et al However, the incidence of mucinous cystadenocarcinoma was more when compared to our study. In our study surface epithelial tumors (85.26%) constitute the most prominent type of ovarian tumors followed by germ cell tumors which is in agreement with other studies done by Misra.R.K. et

al, Maheswari et al, Nasser A. Shaikh et al. Effective therapeutic management of ovarian malignant tumours continues to be a challenge to the oncologist. An accurate histopathological diagnosis combine with clinical staging will help in rendering prompt and appropriate treatment to the patient.

Conclusion

Ovary is the most common site for primary and metastatic tumours. Due to its complex structure, ovarian neoplasm's are of diverse histological types. By histopathological analysis, the exact morphological type can be diagnosed, which will help the gynaecologist for proper management.

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