

Study of Morphological Spectrum of Ovarian Neoplasms in Tertiary Care Hospital-Greater Gwalior Region

Dr. Reena Jain¹, Dr. Shalini Rajee Singh², Dr. Bharat Jain³

Abstract: Ovarian Carcinoma is one of the commonest tumours among females leading to morbidity, ranking only below carcinoma Cervix and Breast. It is now emerging as one of the most common malignancies affecting females in India. Awareness and early detection modalities are still under research for early detection of Ovarian neoplasm and their management. Over 70% of ovarian neoplasms are diagnosed when regional or distant involvement has already occurred. Current epidemiological study is one year retrospective study carried out in GR Medical College and JA group of Hospitals, Gwalior. All the hysterectomy/ovarian tissue submitted for Histopathology were considered, Diagnosed, and Morphologically classified into Benign and Malignant ones, also considering the age of patients. Our study aims at finding the incidence of Ovarian neoplasms in greater Gwalior region with a view to develop more effective diagnostic tools as well as better therapeutic approaches.

Keywords: Ovarian umours, paillary serouscystadenocarcinoma, Borderline tumours

1. Background

Among carcinoma of female genital tract the incidence of ovarian carcinoma ranks below only to carcinoma of cervix and breast. Most of the ovarian neoplasms cannot be detected early in the development, they are the main cause of death, ranking 3rd after cervical carcinoma and breast carcinoma. Ovarian carcinoma is entitled as one of the most common malignancy affecting women in India and showing increase in the incidence rates over the years. This epidemiological study aims to study the morphological spectrum of ovarian neoplasms, their incidence and prevalence, and to decide priorities in ovarian cancer research.

2. Material & Methods

This is a retrospective 1 year study done in histopathology section GRMC & JAH Group Of Hospital. All the hysterectomy/ovarian tissue submitted for histopathological examination were taken into consideration. All benign & malignant ovarian tumours reported were analysed. Patients age, histological type & grade was summarized.

3. Results

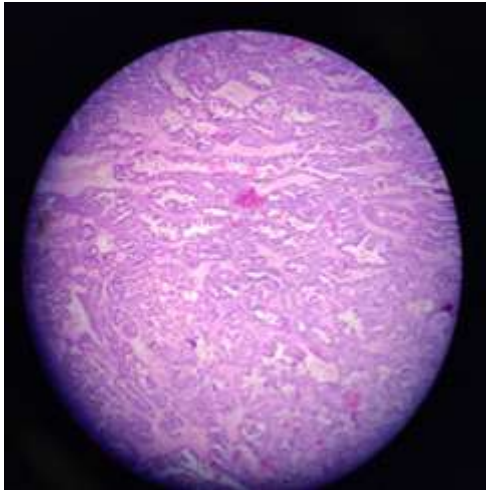
Total of 4030 biopsy were done during 1 year out of which 537 were hysterectomy and ovarian tissue. A total of 65 number of ovarian neoplasms were encountered (57) 87.7 % were benign (8) 12.3 % were malignant. Among the malignant: (3) 37.5 % serous cystadenocarcinoma, (2) 25 % mucinous cystadenocarcinoma, (1) 12.5 % mixed yolk sac tumours, (1) 12.5 % dysgerminomas, (1) 12.5 % clear cell adenocarcinoma. Among benign: (36) 61.4 % serous cystadenomas, (10) 17.5 % mucinous cystadenomas, (10) 17.5 % dermoid cyst (1) 1.7 % fibromas.



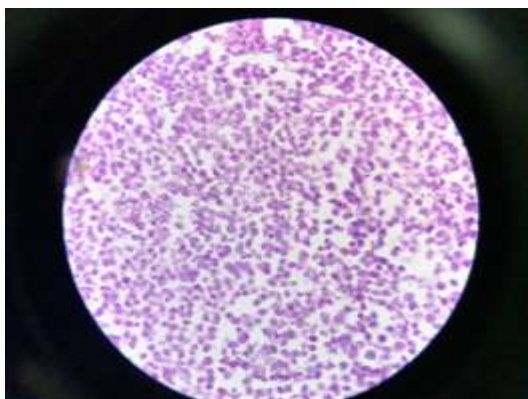
(A) Photograph showing gross specimen of Bilateral ovarian Bilateral Serous cystadenocarcinoma



(B) Photograph showing Cut surface of Ovarian Mucinous cystadenocarcinoma



(C) Photomicrograph showing solid glandular arrangement in Papillary Serous cystadenocarcinoma.



(D) Photomicrograph showing lobules of Tumour cells with scattered Lymphocytes in Dysgerminoma

4. Discussion

The ovary is a complex structure from an embryological, anatomical and functional stand point. Therefore ovarian tumors aroused curiosity and problems to pathologists and clinicians regarding their abnormal contents and genesis. The value of detailed morphological study of ovarian tumors lies not only in systematic diagnosis but also in planning the modality of treatment and assessing the prognosis.

A study conducted by Arpita J. Nishal Et al studied 55 cases of ovarian mass out of which 28 cases (51%) were benign, 3 cases (5%) were borderline and 24 cases (44%) were malignant. In our study **87.7 %** were benign **12.3 %** were malignant. Another study conducted by Vaddattitejeswini Et al. studied 278 ovarian neoplasms and found that 275 were primary (98.92%) and 3 were metastatic tumors (1.08%). Among primary ovarian tumors, the surface epithelial tumors ranked first (85.25%), followed by germ cell tumors (9.71%) and sex cord stromal tumors (3.95%) our study also showed most common ovarian tumours as surface epithelial tumors .

Another study conducted by Nirali N. Thakkar Et al. studied 129 cases of ovarian lesions, out of which 109 cases were benign, 17 cases were malignant & 3 were borderline lesions. Commonest benign epithelial tumors were Serous cystadenoma (55.4%).in our study also 61.4 % were serous

cystadenomas followed by 17.5 % mucinous cystadenomas, 17.5% dermoid cyst.

Another study conducted by NehaGarg Et al. studied 85 cases, out of which majority were benign tumours (81.2%), followed by malignant (17.6%) and borderline tumour (1.2%). In our study majority of cases were benign.

Our data needs to be viewed with a few limitations. The data is based on a single institution and may not completely represent cross sectional profile of the entire population. Being a tertiary care centre also introducing confounding factors, such as bias in referred patterns. Another area of concern is that, being a laboratory based study, detailed clinical history including duration of symptoms and in a few cases imaging was also not available for clinicopathologic correlation.

Despite a few limitations our data represents comprehensively the current scenario of ovarian neoplasm in our set up with age diagnosis tumor and histologic type distribution and has major implication on future research in this particular area.

5. Conclusion

This study aims at finding the morphological pattern of ovarian neoplasm, the most common ovarian neoplasm reported at our Gwalior region, the common age group after by the ovarian neoplasm. The research efforts to find early diagnostic and effective screening tools as well as better therapeutic approaches for advance epithelial and other malignant ovarian neoplasm.

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