

HISTOPATHOLOGICAL SPECTRUM OF OVARIAN LESIONS IN A TERTIARY CARE HOSPITAL OF SINDH

^{1*}Anam Shaikh, ²Kiran Arif, ³Aisha Chauhan, ⁴Laraib Abbasi

¹Department of Pathology, Lyari Medical College, Karachi

²Department of Pathology, Ziauddin University, Karachi

³Department of Psychiatry, LUMHS, Jamshoro

⁴Department of Pathology, LUMHS, Jamshoro

*Corresponding Author: Anam Shaikh (anam_shaikh67@yahoo.com)

Cite this article:

Shaikh A, Arif K, Chauhan A, Abbasi L. Histopathological Spectrum of Ovarian Lesions in a Tertiary Care Hospital of Sindh. AJMAHS. 2023; 1(1):51-55.

ABSTRACT

BACKGROUND: Ovarian tumors takes part as an essential role in pathologies of female genital tract. It can happen in any group of age. It can be a modest lesion of cyst lesion or dangerous malignant tumor. Majority of tumors are expressed at a later stage of life due to ambiguous symptoms and signs. Histopathologic assessment is confirmatory test for ovarian malignancy.

METHODS AND MATERIALS: This was a prospective study conducted at tertiary care hospital for a period of 2 years (February 2022 to July 2022). The data was collected with relevant comprehensive material. The excised specimens were received in a formalin (buffered), processed, sectioned, and stained with routine stain of Haematoxylin and Eosin (H & E).

RESULTS: Among 142 samples, abdominal pain was the commonest presentation mode followed by abdominal mass. The commonest age group was 21 to 40y years. There was predominance of unilateral manifestation of malignancy. The benign lesions were approximately 94%. Among benign lesions, the serous cystadenoma was commonest. Among malignant lesions, there was predominance of mucinous cystadenocarcinoma.

CONCLUSION: This study revealed various presentation modes of ovarian. Therefore, proper diagnosis should be done adequately and timely for the identification of risk factors for establishment of ovarian malignancies.

Keywords: Ovarian carcinoma, benign, malignant, histopathology, female genital tract.

INTRODUCTION

In female genital tract, ovaries are intrapelvic organs with complex physiology. The ovary is a common location for development of both benign and malignant tumors. It can be seen in any group of age, from the intrauterine period to post-menopausal age¹. The neoplastic lesions are additionally classified as Benign, Borderline, and Malignant. Benign neoplasms comprise about 80% of ovarian lesions. Some of the risk factors for developing ovarian cancers are nulliparous women, family history, genetic mutation, and environmental and lifestyle changes¹. Ovarian malignancy is one of the common malignancies among women and is life-threatening². These malignancies are difficult to diagnose in the early stage for clinicians because most of them are asymptomatic whereas in the later stage it is easy to diagnose but is associated with poor prognosis^{3,4}. One of the reasons is ovaries are situated deep in the pelvis and it has no precursor lesions. The incidence and prevalence of ovarian tumors vary in different geographical parts of the country⁵.

Identification of histopathological patterns of ovarian tumors by a Pathologist plays a great role as it aids in the treatment and prognosis of the patient⁶. This study focus on the frequency, age, clinical presentation, laterality, and histopathological spectrum of ovarian neoplasms based on data collected in and around the rural areas of Sindh.

METHODS AND MATERIALS

A prospective study was made in our Institute by diagnosing 142 patients with ovarian lesions from

February 2022 to July 2022. During the study period, all the specimens received at the Department of Pathology for histopathological examination. Non-neoplastic and neoplastic malignancies of ovaries were included. Benign malignancies of ovary were excluded from this study. The data was extracted with proformas having adequate information about age, symptoms, laterality, and provisional and histopathological diagnosis. The tissue samples were taken from the representative areas and processed for preparation of paraffin blocks. Sections were prepared with thickness at 3 to 4 micron, with H & E stain, and were reviewed accordingly.

RESULTS

Table 1 shows that abdominal pain was the commonest presentation followed by mass per abdomen. About 0.7% of cases presented with ascites and they are the least common. 08 cases (5.6%) are asymptomatic and detected during abdominal ultrasonography done for other diseases.

Table 2 shows incidence of age in terms of ovarian tumors. The age was ranged from 11-70 years. Majority of patients were included in age group between 21 to 30 years followed by 31 to 40 years. There was lower incidence after 60 years of age.

Table 3 shows that majority of patients (93.7%) were having benign tumors, followed by malignant (4.9%) and borderline tumors (1.4%).

On the basis of histopathological examination, surface epithelial tumors were the most common type (88%).

Table 12: Mode of Presentation (n=142)

Presentation	Number of Cases	Percentage
Abdominal mass	31	21.8%
Abdominal pain	90	63.4%
Menstrual irregularities	12	8.5%
Ascites	1	0.7%
Asymptomatic	8	5.6%

Table 13: Incidence of Ovarian Cancer in terms of Age (n=142)

Age (years)	Number of Cases	Percentage
11-20	10	7.2%
21-30	59	41.5%
31-40	39	27.4%
41-50	26	18.3%
51-60	5	3.5%
61-70	3	2.1%

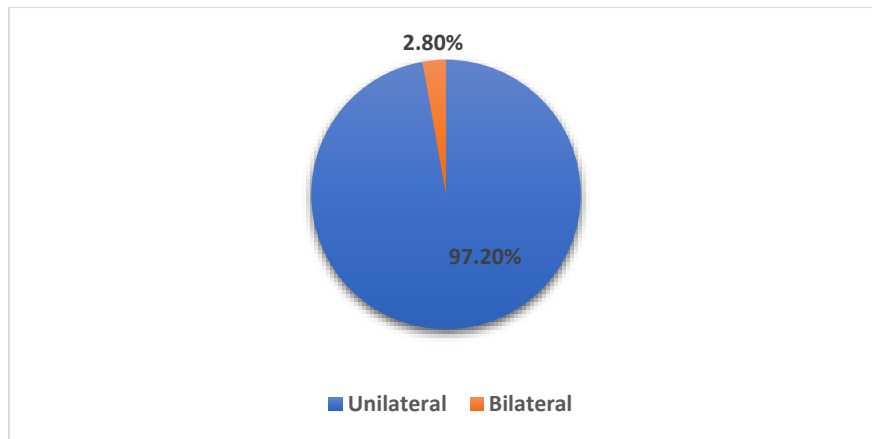


Figure 7: Incidence of Laterality in Patients with Ovarian Tumors (n=142)

Table 14: Type of Ovarian Tumor (n=142)

Type of Tumor	Number of Cases	Percentage
Benign	133	93.7%
Borderline	2	1.4%
Malignant	7	4.9%

DISCUSSION

Current study reveals that the ovarian malignancies have various presentation modes. The presenting symptoms include menstrual irregularities, ascites, loss of weight, anorexia, urinary symptoms etc. In this study, 63.4% cases presented with abdominal pain followed by 21.8% presented with abdominal mass. Approximately 8.5% of them presented with menstrual irregularities. In current study, 5.6% presented as asymptomatic and were diagnosed incidentally during routine ultrasound examination. Our study has similar findings with study conducted by Agarwal et al³. In their study, abdominal pain was the commonest presenting symptom, followed by abdominal mass. In another study by Rose et al⁴. Abdominal mass was the most common presentation.

In terms of age, our study shows that the most common age of presentation was 21 to 30 years. Gupta et al². showed similar results, while Karli et al⁷. revealed that the commonest age presentation was 31 to 40 years. In contrast to our results, Agarwal et al³. showed that most common age of presentation was 41 to 50 years. Majority of ovarian malignancies in our study were unilateral. Sampurna et al⁸. also showed that unilateral involvement was most common as compared to bilateral. Similar findings were also explored by Suleiman et al⁹. with highest incidence of unilateral involvement. In current study, benign lesions were most common in contrast to malignant and borderline tumors. Pachori et al¹⁰. and Sawant et al¹¹. also showed similar findings. In all studies, serous cystadenoma was the most common type of

ovarian malignancies. On the basis of histological examination, our study revealed surface epithelial tumors as most common tumor followed by germ cell tumor. Ayma et al¹². and Ashok et al¹³. also revealed similar results. All these results show the variability in presentation and occurrence of ovarian tumors.

CONCLUSION

Ovarian tumors present a vast spectrum of clinical and histological features. They are next to cervical cancer among female genital tract malignancies. They can present at any group of age and benign lesions are common in the reproductive age group. The size of the tumor does not depend on the nature of the tumor. It is necessary to classify the tumor according to its histological subtype for further treatment and prognosis of the patient.

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