

# Histological Analysis of Surface Ovarian Epithelial Tumors

Abhilash Singh<sup>1</sup>, Ishant Sharma<sup>2</sup>

<sup>1</sup>Medical Officer, Department of Pathology, Dr Rajendra Prasad Govt. Medical College, Kangra, Himachal Pradesh, India

<sup>2</sup>Medical Officer, Pathology, Civil Hospital, Palampur, Kangra, Himachal Pradesh, India

<sup>2</sup>Corresponding author E-mail: [abhilashthakur2013\[at\]gmail.com](mailto:abhilashthakur2013[at]gmail.com)

**Abstract:** *Introduction:* Ovary is a common site for tumors, both benign and malignant which causes great morbidity and mortality. The study was undertaken to analyse the clinical profile of ovarian tumors. *Material and Methods:* This was a hospital based cross sectional observational study conducted for one year from 1st June 2019 to 31st May 2020 in the Department of Pathology, Indira Gandhi Medical College, Shimla. *Results:* Unilateral ovarian tumors were found to be more common 59 (77.6%) in comparison to bilateral ovarian tumors 17 (22.4%). On histological examination, majority of epithelial ovarian tumors were benign 38 (50%) followed by malignant 32 (42.1%) and borderline tumors 6 (7.9%). In this study, 54% of tumors were uniloculated while remaining were multiloculated (46%). *Conclusion:* There is a need for early attention to symptoms and signs and proper evaluation with detailed investigations for ovarian tumors.

**Keywords:** ovarian tumors, benign, malignant, clinical profile

## 1. Introduction

Ovarian tumors are notorious silent killers as they escape attention in early stage due to their anatomical location and are often not noticed until they have achieved a huge size [1]. Ovarian tumors represent a range of pathology from benign mass through tumors of borderline malignant potential to invasive cancers. Ovarian malignancy is the sixth most common cancer and the seventh most common cause of cancer deaths in women globally [2]. In most population-based registries in India, ovarian cancer is the third leading site of cancer among women, trailing behind cervix and breast cancer [3]. Ovarian cancer has emerged as one of the most common malignancies affecting women in India and has shown an increase in the incidence rate over the years [4]. The lack of specific symptoms, effective screening and early diagnostic techniques make ovarian cancer a highly deadly malignancy [5]. Majority of the ovarian cancers are epithelial cancers. The present study was undertaken to analyse the clinical profile of surface ovarian epithelial tumors.

## 2. Methods

This was a hospital based cross sectional observational study conducted for one year from 1st June 2019 to 31st May 2020 in the Department of Pathology, Indira Gandhi Medical College, Shimla. All the surface epithelial ovarian tumour specimens with definite histopathological diagnosis, irrespective of age were considered for study.

Ovarian tumours other than surface epithelial ovarian tumours, metastatic tumours from non-ovarian primary, patients with SEOTs on/prior radiation or chemotherapy and patients with recurrence of SEOTs were excluded from the study. Clinical profile of these patients was recorded in to a pre-designed proforma.

## 3. Results

### 3.1 General characteristics

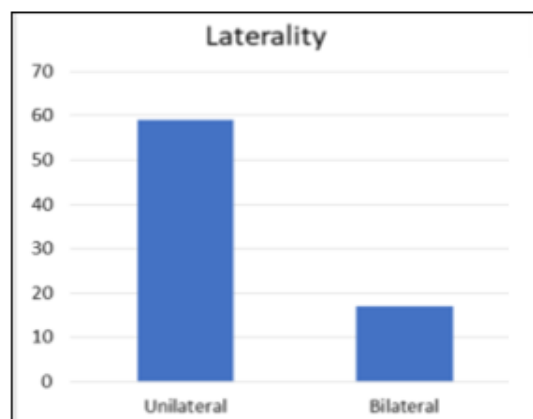
Most of the patients (44.7%) were in the 40-59 years age group followed by 31.6% in 21-39 years and 23.7% in  $\geq 60$  years age group. Youngest 3 patients were 21 years of age. Among all 76 patients, 42 (55.3 %) were premenopausal and 34 (44.7 %) were menopausal.

**Table 1:** General characteristics

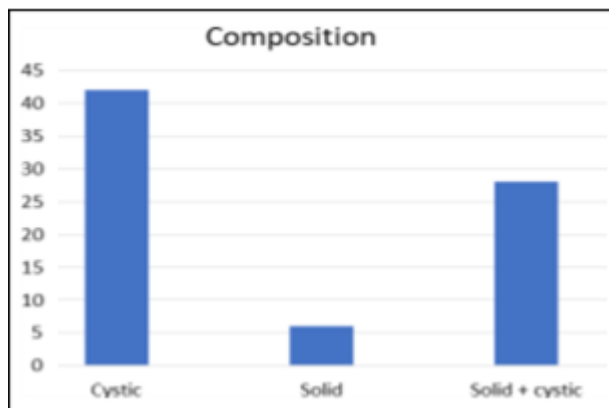
		Number	Percentage
Age group (years)	21-39	24	31.6
	40-59	34	44.7
	$\geq 60$	18	23.7
Menopausal status	Premenopausal <55 years	42	55.3
	Menopausal >55 years	34	44.7

### Histopathological findings

Unilateral ovarian tumors were found to be more common 59 (77.6%) in comparison to bilateral ovarian tumors 17 (22.4%) (Figure 1). Gross examination revealed 42 (55.3%) cystic tumors, 6 (7.9%) solid and 28 (36.8%) with both solid and cystic component (Figure 2).



**Figure 1:** Laterality



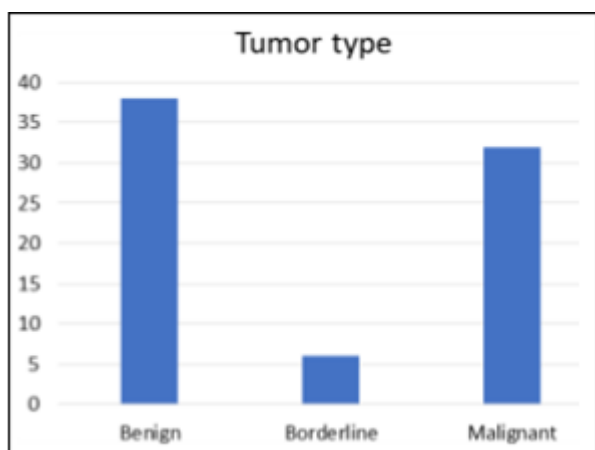
**Figure 2:** Composition of surface epithelial ovarian tumors

#### Loculations in cystic surface epithelial ovarian tumors

In this study, 54% of tumors were uniloculated while remaining were multiloculated (46%).

#### Tumor type

On histological examination, majority of epithelial ovarian tumors were benign 38 (50%) followed by malignant 32 (42.1%) and borderline tumors 6 (7.9%) (Figure 3).



**Figure 3:** Types of surface epithelial ovarian tumors

## 4. Discussion

The laterality of ovarian cancers is a clue to their nature. <sup>6</sup> Most of the primary ovarian tumors are unilateral, however bilaterality is a common feature of metastatic tumors and an important diagnostic clue. But, one has to be cautious while diagnosing them, as typical serous or undifferentiated carcinomas can also be bilateral. Serous cystadenomas are usually unilocular and mucinous cystadenomas are multilocular. <sup>7</sup>

## 5. Conclusion

Advances in molecular biology and large volumes of literature on use of ancillary techniques for better understanding of surface epithelial tumours are on the rise, but still morphological study by histopathological techniques are still the backbone for diagnosis of these tumours.

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