



## Clinicopathological Profile of Gynaecological Cancers

Authors

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### Abstract

**Objective:** *Comprehensive statistics on gynaecological malignancies reported from India are deficient. This study was performed to ascertain the clinicopathological profile of gynaecological cancers reported at our centre.*

**Materials and Methods:** *All women attending gynaecological OPD and radiotherapy OPD of TDMCH, Alappuzha who were diagnosed to have malignancy of the cervix, endometrium, ovary and other malignancy of the genital tract are taken as cases and those women without malignancy as excluded by pap smear, ultrasound examination and endometrial sampling are taken as controls. These population are studied for one year period from Jan 2016 to Jan 2017.*

**Results:** *Of the population studied, ovarian malignancy were the commonest malignancy at our centre constituting about 39.8% of the population followed by endometrial and cervical cancer which constitutes about 35.2% and 23.6% respectively. Vulval cancer constitutes about 1.4% The histopathology of various*

*malignancy were studied and it was found that squamous cell carcinoma of cervix, endometrioid carcinoma of corpus uteri and epithelial ovarian malignancy remains to be the most common clinical type among each group constituting for about 68.75%, 54.16% and 75% respectively. Among the ovarian cancer serous cystadenocarcinoma ovary constitutes about 62.96%. Among the tumour markers studied CA125 is found to be significantly elevated in epithelial ovarian malignancy.*

**Conclusion:** *Thus to conclude ovarian and endometrial cancer is on the rise compared to cervical cancer.*

**Keywords:** *Gynaecological cancer; clinicopathologic profile; ovarian, endometrial and cervical cancer.*

### Introduction

Gynaecological cancers encompass a diverse group of tumours with different epidemiological and pathological features, clinical presentations and treatment strategies. Gynaecological cancers form a huge burden of morbidity and mortality around the world. Data available from various centres worldwide are indicative of vast regional variability in incidence, common sites of

occurrence, age and stage of presentation. While information on such issues is readily available from the developed world, composite data from the Indian subcontinent is deficient. We aimed to undertake this study to collect comprehensive information from our centre on gynecological malignancies. This study was performed to ascertain the profile of gynaecologic cancers reported at our centre regarding histologic

subtypes and frequency of involvement at various sites.

Malignancies has already emerged as one of the most important health problems with an alarming rate of over 800,000 new cases occurring every year. According to the data collected from the Cancer Registries, it has been noted that >70% of the cancers in women occurs in middle aged women ranging from 35 to 64 years, thereby suggesting the impact of cancer as a major public health issue in the most productive age group of women. Data from the population based registries under the National Cancer Registry Program indicate that the leading sites of cancer among women are the cervix, uterus, breast and oral cavity. 70% of women present at an advanced stage of the disease, which results in poor survival and high mortality. We need to take active measures to decrease the morbidity and mortality associated with gynaecological malignancies.

The first step in this process is to assess the incidence and prevalence of cancers. It is of utmost importance to detect the cancers early and take active treatment measure. But illiteracy, lack of awareness about the symptoms of the underlying grave disease and lack of access to health centres with treatment and prevention facilities, prevalence of poverty, results in failure to elicit the expected response and results in Indian women. Regional variability in cancer incidence, the mean age at which women present with gynecological symptoms, stage at presentation, the common sites of occurrence is noted from the data available from the good number of centres worldwide.

Carcinoma of cervix continues to be the most common genital cancer encountered in clinical practice in India. 5 lakh cases are reported annually world over. In India 1.3 lac new cases occur with death toll of 70000 per year. It accounts for 15% of all cancers of females. Endometrial cancer has recently emerged as the more frequently encountered cancer accounting for 20 to 25% of all genital cancers.

Ovarian cancer is the second most common of all genital cancers accounting for 10 to 15% of all gynaecological cancers in developing countries including India. Vulval cancer accounts for 2 to 4% of all malignancies. Primary carcinoma of fallopian tube is uncommon and accounts for only 0.3% of all cancers of female genital tract, though metastatic growth from uterus, ovaries and gastrointestinal tract are common. The increasing incidence of cancer in India has mirrored trends in developed countries.

### Objectives

1. To find out the clinical profile of various gynaecological malignancies in Govt. T.D. Medical College, Alappuzha.
2. To find out the histopathological profile and tumour markers of gynaecological malignancies in Govt. T.D. Medical College, Alappuzha.

### Methodology

**Study Design:** Hospital based case control study.

**Study Setting:** Department of Obstetrics & Gynaecology and Department of Radiotherapy

### Source Population

All women attending gynaecology OPD and radiotherapy OPD in Govt. TD medical college Alappuzha during the period of study.

**Study Period:** One year from the date of acceptance of thesis protocol from Jan 2016 to Jan 2017.

**Cases:** Those women who are diagnosed to have malignancy of cervix, endometrium, ovary and any other genital tract malignancies are taken as cases.

**Controls:** They are age matched women without malignancy as excluded by pap smear, ultrasound examination and endometrial sampling are taken as controls.

### Results

Women who were diagnosed to have malignancy are taken as cases and women with risk factors and without malignancy who are willing to

participate in the study are taken as controls. A total of 136 women were studied .Out of which 68 women with malignancy are taken as cases and 68 women are taken as controls. Among the 68 cases

80.9% were more than 50 years of age and among the 68 control 60.3% were less than 50 years of age.

**Table: 1** Clinical features of study groups

Sl. No.	Clinical features	Control (N=68) n (%)	Case (N=68) n (%)
1	Postmenopausal bleeding	8 (11.8)	25 (36.8)
2	Abnormal uterine bleeding	33 (48.5)	7 (10.3)
3	Discharge per vaginum	1 (1.5)	12 (17.6)
4	Mass palpable per abdomen/abdominal distension	16 (23.5)	24 (35.3)
5	Other complaints	10 (14.7)	0

Among the population studied, most women presented with postmenopausal bleeding followed

by abdominal distension, constituting about 36.8% & 35.3% respectively.

**Table 2:** Diagnosis profile among cases (N=68)

Sl. No.	Diagnosis	Frequency	Percentage
1	Cervical cancer	16	23.6
2	Ovarian cancer	27	39.8
3	Endometrial cancer	24	35.2
4	Vulvar cancer	1	1.4

Among the population studied it was found that ovarian malignancy constitutes about 39.8% followed by carcinoma endometrium which

constitutes for about 35.2%. cervical cancer constitutes about 23.6% and remaining 1.4% by vulvar cancer.

**Table 3:** Distribution of age and clinical features among cases (N=68)

Sl. No.	Features	Ca-cervix	Ca-ovary	Ca-endometrium
1	<b>Age group</b>			
	< 50	1 (6.25)	7 (25.93)	5 (20.84)
	≥ 50	15 (93.75)	20 (74.07)	19 (79.16)
2	<b>Clinical features</b>			
	Postmenopausal bleeding	5 (25)	0	20 (83.3)
	AUB	3(15)	0	4(16.7)
	Discharge per vaginum	12 (60)	0	0

**Table 4:** Menstrual details, parity and tumour markers among cases (N=68)

Sl. No.	Features	Ca-cervix n (%)	Ca-ovary n (%)	Ca-endometrium n (%)
1	<b>Menstrual history</b>			
	Pre-menopausal	1 (6.3)	6 (22.2)	4 (16.7)
	Postmenopausal	15 (93.8)	21 (77.8)	20 (83.3)
2	<b>Parity</b>			
	Nullipara	2 (12.5)	1 (3.7)	1 (4.2)
	Multiparous	14 (87.5)	26 (96.3)	23 (95.8)
3	<b>Tumor markers</b>			
	Normal	16 (100)	0	24 (100)
	Elevated	0	27 (100)	0

## Discussion

In our study conducted it was found that the mean age of patients with cervical cancer was around 50 years of age accounting for 93.75% of cases. In a study conducted by Malhotra et al it was found the mean age of patients with cervical cancer were 45 and 49 years of age accounting for 71.47% of cases. In a study conducted by Malhotra et al, Ovarian malignancies constituted 15.11% of all gynaecologic malignancies reported, with a median age of 45 years. In our study population it was found that the mean age was 50 years for Ovarian malignancy constituting around 74.07% of our cases. Endometrial malignancy constitutes around 79.16% among the age group of 50yrs.[1-3]. In a Hospital-based Study of Endometrial cancer survival in Mumbai conducted by Ganesh Balasubramaniam et al, it was found that 62.3% of patients were >50 years of age<sup>[4-8]</sup>. In our study conducted, 83.3% of women with endometrial cancer present with postmenopausal bleeding, 68.75% of women with cervical cancer present with discharge per vaginum and almost 90 to 100% of women with ovarian malignancy present with abdominal discomfort and distension.

In our study conducted, it was found that ovarian malignancy constitutes about 39.8% followed by uterine and cervical cancer about 35.2% & 23.6% respectively. Vulval malignancy constitutes about 1.4%. A study conducted by Nandagudi Srinivasa Murthy et al showed an increasing trend in the incidence rate of ovarian cancer in most of the registries, with a mean annual percentage increase in ASR ranged from 0.7% to 2.4%. Analysis of data revealed that the mean annual percentage increase was higher for women in the middle and older age groups in most of the registries.<sup>[9-14]</sup>

Among the population studied it was found that squamous cell carcinoma of the cervix constitutes about 68.75% and remaining constitutes about 31.25%. In a study conducted by Malhotra et al it was found that squamous cell carcinoma of the cervix is the most common type and constitutes about 92.55%.

Among the endometrial carcinoma, endometrioid adenocarcinoma constitutes about 54.16% and remaining constitutes about 45.84%. In a study conducted by Malhotra et al it was found endometrioid adenocarcinoma is the common subtype and it constitutes about 79.06%.<sup>1-3</sup> Another study conducted by Imrana Tanvir et al it was found 80% of specimens were of endometrioid adenocarcinomas, 11% of serous tumors, 4% of clear cell carcinoma, and 4% of squamous cell carcinomas.

In a study conducted by Malhotra et al it was found that epithelial ovarian cancer is the most common type constituting about 75% of the total population studied. Among the population studied it was found that papillary serous cystadenocarcinoma constitutes about 62.96% and remaining constitutes about 37.04%<sup>[1-3]</sup>

A study conducted by Markowska J et al, CA 125 as a marker of ovarian cancer it was found that elevated CA 125 level was noted in 0.2-5.9% healthy women, 2.2-27.8% patients with benign ovarian cysts, and approximately 80% patients with nonmucinous ovarian cancer. In the early stages of cancer, CA 125 level was lower than in the disseminated process (with tendency to higher levels in cases of accompanying exudates to body cavities). The level was found to correlate with the mass of tumor, extent of surgery and response to chemotherapy. Among our population studied it was found that almost every patient with carcinoma ovary irrespective of the histological type CA125 level is elevated.

## Conclusions

The present study was conducted to find out the clinical profile of various gynaecological malignancies and to find out the histopathological profile and tumour markers of gynaecological malignancies.

- The common age of malignancy is around 45 to 50 yrs.
- The most common clinical symptoms are postmenopausal bleeding followed by discharge per vaginum.

□ Women with high parity are at increased risk for carcinoma cervix.

□ It was found that ovarian malignancy constitutes about 39.8% followed by uterine and cervical cancer about 35.2% & 23.6% respectively which shows there is a change in trend in gynaecological malignancy.

□ The histopathology of various malignancy continues to remain the same i.e. squamous cell carcinoma of cervix, endometrioid carcinoma of corpus uteri and papillary serous cyst adenocarcinoma of ovary remains to be the most common clinical subtype constituting about 68.75%, 54.16% and 62.96% respectively.

Thus to conclude ovarian and endometrial carcinoma is on the rise compared to cervical cancer. These observations suggest that the possibly environmental and /or life-style factors affecting the change had influence on all the age groups. India is rapidly stepping towards industrialization vis-à-vis urbanization resulting in change of life style factors particularly an increase in age at marriage, delay in age at first birth, reduction in parity and improved socio-economic conditions. The above factors possibly might have contributed to gradual increase in the incidence of ovarian cancer in India. The histopathological profile of various malignancy however continues to remain the same. Among the tumour marker studied CA125 is found to be a useful tool.

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