

# Histopathological Spectrum of Female Genital Tract Malignant Tumours

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**Abstract:** Background: The Malignant tumours of female genital tract are the major public health problem developing counts such as India and other countries. Objective: To Study the histopathological spectrum of female genital tract malignancies. Material and Methods: A total of 132 specimens of various types of Malignant tumors were received during the 10 years duration. Result: Carcinoma of uterine cervix accounted for 49.24% of all Genital cancer in women followed by ovarian cancers 23.48% and uterine Corpus Cancer 18.8%. Conclusion: Genital cancers in women are common and poorly prognosed in our country. So, the adoption of effective health policies is mandatory to improve the prognosis

**Keywords:** Carcinoma of uterine cervix, genital cancer, genital tract malignancies, health policies ovarian cancers

## 1. Introduction

The female genital tract show morphological diversity throughout life. The gynaecological cancers are the leading causes of years lost in Indian women. The pattern of distribution of female genital tract cancers varies worldwide due to ethnic, environmental and geographical variations. Cervical cancer is the most common type of genital cancer in women followed by endometrial cancers. Higher incidence of cervical cancer is due to less organized health programs. Low socioeconomic status, illiteracy, HIV/AIDS, high prevalence of HPV along with many cultural and religious factors also contributes to the high prevalence and mortality. The endometrial cancer is showing increasing trend in developing countries.

Various researches have been directed towards astrology, preventive strategy and optimum treatment. So it becomes important to establish pattern of distribution and various presentations of female genital cancers to set priorities for various policies related to cancer prevention and treatment.

## 2. Material and Methods

This study was carried out in the Department of Pathology of Government Medical College Jammu. The study was conducted in two parts- retrospective period of four years (2012-15) and prospective period of one year (Nov 2015 - Oct 2016). The data was collected from all the histopathological reports maintained in histopathological section of the department. The data collected included the site, age, parity, clinical symptoms and histopathological type of female genital cancer for each patient. The specimens were fixed in 10% formalin, dehydrated with ascending grades of alcohol, cleared in xylene and finally embedded in paraffin. 3 to 5 micron thick sections were cut on a rotary microtome, dewaxed and stained with haematoxylin and eosin by the method described by Bancroft and gamble (2002). The Statistical analysis was done using SPSS software.

## 3. Results

**Table I:** Site wise Distribution of Female Genital Malignant tumours

Female Genital Tumours	No. of cases	%age
Uterine - Corpus Tumours	24	18.18
Uterine - Cervix Tumours	65	49.24
Ovarian Tumours	31	23.48
Vulvovaginal Tumours	08	6.60
Choriocarcinoma	01	0.75
Synchronous Tumours	01	0.75
Metastatic Tumours other than ovarian	02	1.51
Total	132	100

**Table II:** Age wise Distribution of Female Genital Tract Malignancies

Age in Years	No. of cases	age
10-19	01	0.76
20-29	05	3.79
30-39	11	8.33
40-49	45	34.09
50-59	32	24.24
60-69	29	21.96
70-79	07	5.30
>79	02	1.52
Total	132	100

**Table III:** Clinical Features of Patients of Cervical Carcinomas

Features/ Symptoms	No. Of Cases	%age
Abnormal Bleeding Per Vaginum	44	67.70
Foul Smelling Watery Discharge	19	29.23
Post Coital Bleeding	07	10.77
Pain	06	9.23
Cervical growth	03	4.61

**Table IV:** Clinical Features of Patients of Uterine Corpus Tumours

Features/ Symptoms	No. Of Cases	%age
Bleeding P/V	14	58.33
Purulent Discharge per Vaginum	02	8.33
Pain	11	45.83
Pressure symptoms	04	16.67

**Table V:** Clinical Features of Patients of Ovarian Carcinomas

Features/ Symptoms	No Of Cases	%age
Abdominal Mass	22	70.97
Abdominal Pain	16	51.61
Post-Menopausal Bleeding	05	16.13
Ascites	05	16.13
Weight Loss	06	19.35

**4. Discussion**

Genital cancers in women constitute a large proportion of surgical cases worldwide especially developing countries. The incidence is increasing in developing countries due to lack of awareness and due to less appropriate health policies.

The peak incidence of malignant tumours is seen between 40-49 years similar to Chhabra et al (35-49) years and lower than N'Dah KJ et al.

This study shows that the most common site of malignant tumour of female genital tract is uterine cervix( 49.24%) closest to 48.6% reported in Yakasai IA et al and lower than 65.8% in Nwankwo KC et al and 78% in Ugwu EU et al. Maximum no. of cases (46.15%) are reported between 40-49 years similar to Chen MQ et al (30-49yrs) and lower than 50-69 years as reported in Uzoigee et al.. These patients present most commonly with abnormal vaginal bleeding (67.7%) and foul smelling discharge P/V (29.23%) similar to Krishnaappa C et al and Ninan RM et al. The commonest histological type of carcinoma cervix is squamous cell carcinoma (92.3%) followed by adeno carcinoma (7.69%) in consistent with observation of Arya A et al and Gupta A et al.

Endometrial carcinoma (83.33%) is the most common malignant tumours of corpus uteri followed by uterine sarcoma (16.67%) in accordance with Wei JJ et al and Bagde MN et al.

In India, ovarian cancer is the second most common malignancy of female genital tract. This study shows bimodal distribution of ovarian cancer similar to Mohammad A et al in 4<sup>th</sup> and 6<sup>th</sup> decade with mean age of 51.25 years and higher than N'Dah et al and Nwankwo KJ et al. The ovarian cancers are shown in this study to be presenting most commonly as abdominal mass (70.97%) followed by abdominal pain(51.61%) as reported by Tejeswini V et al but in contrast to Aggrawal P et al .

The most common histological type of ovarian cancers is surface epithelial tumours(70.96%) followed by germ cell tumours(12.90%) similar to finding of Mankar DV et al serous tumours are most common surface epithelial tumours followed by squamous tumours similar to Tejeswini V et al. Dysgerminoma constitute (64.52%) of germ cell tumour lower than 80% in Nnadi D et al. This observation is in contrast to Singh S et al which showed teratoma as the most common germ cell tumour. Alverado Cabrero A et al (2013) reported 23% Patients with Krukenberg's tumour much higher than our observation of 3.23%.

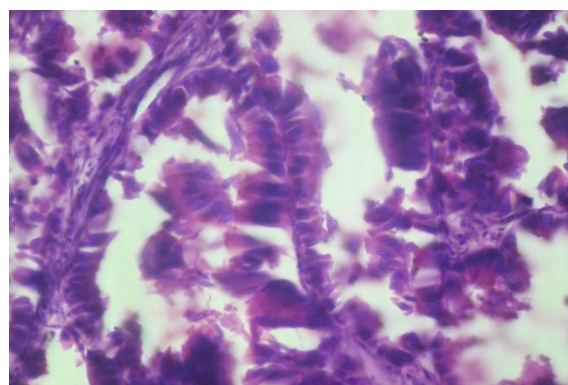
The vulval cancer is most prevalent between 50-59 years similar to Joseph a et al and Hanprasertpong J et al while

vaginal cancer occur most commonly between 60-69 years in contrast to N'Dah KJ et al (45-54yrs). The vulval cancers presented most commonly as vulval growth (80%) followed by bleeding 60% similar to Hanprasertpong J et al and Kaider- Person O et al.

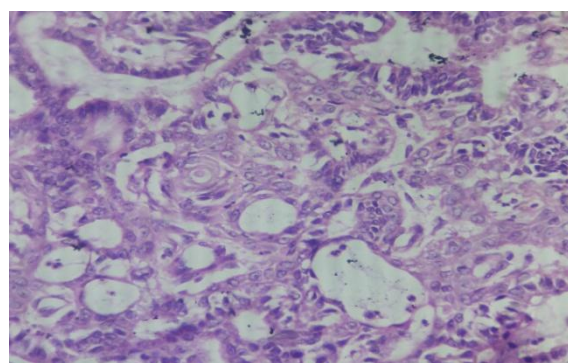
Squamous cell carcinoma is the most common histological type of vulvo-vaginal cancer(87.50%) matching the finding of N'Dah KJ et al and Dittmer C et al.

Chorio carcinoma constitute 0.75% of all genital cancers in females presenting most commonly as amenorrhoea and pain abdomen at the age of 24 years matching the observations of Forae GD et al and Dhakal HP et al but was much lower than Yakasai IA et al.

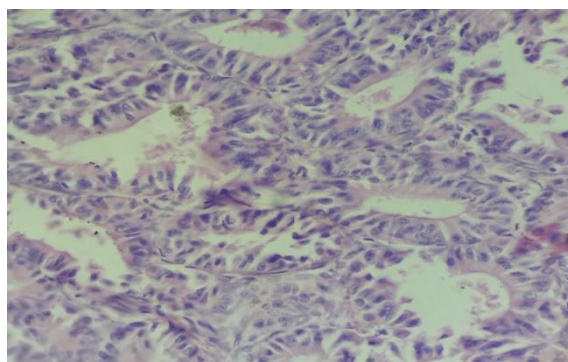
In this study 2 cases of metastases (1.51%) are observed, one to uterus and fallopian tube from GIST of ileum and other to uterus only from moderately differentiated adenocarcinoma. One case (0.75%) shows simultaneous presence of papillary serous adenocarcinoma in endometrium and granulosa cell tumours in ovary with median age of 47.4 yrs.The finding were consisted with those of Karki S et al.



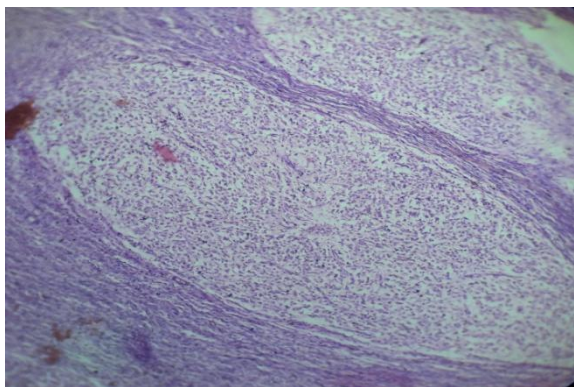
**Adenocarcinoma cervix (h&ex 40)**



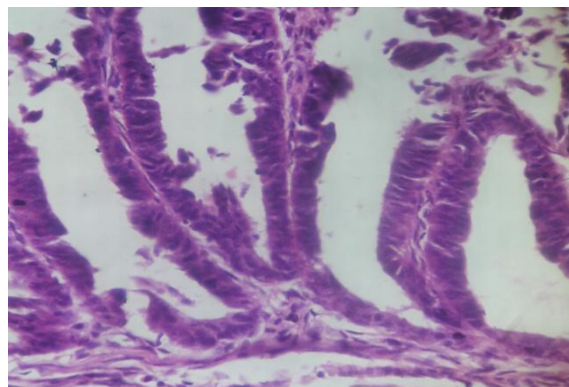
**Adenosquamous carcinoma cervix (h&ex 40)**



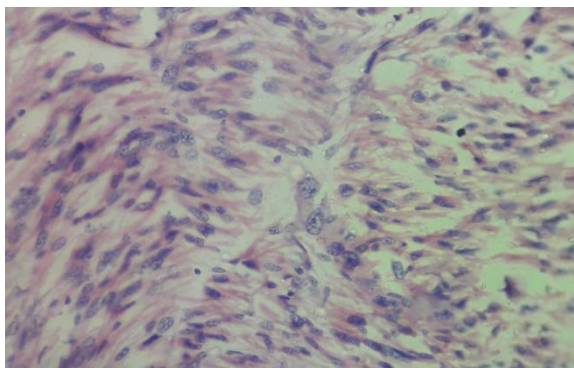
**Endometrioid carcinoma endometrium (h&e x 40)**



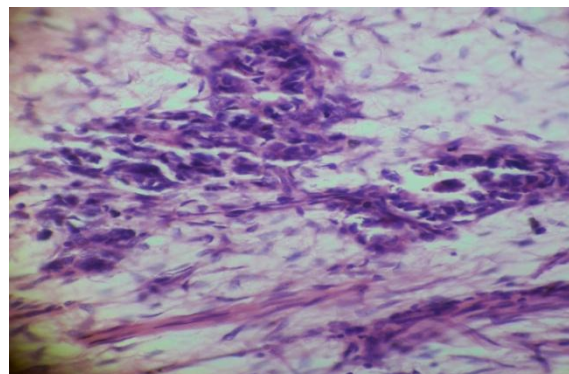
Endometrial stromal sarcoma (h&e x10)



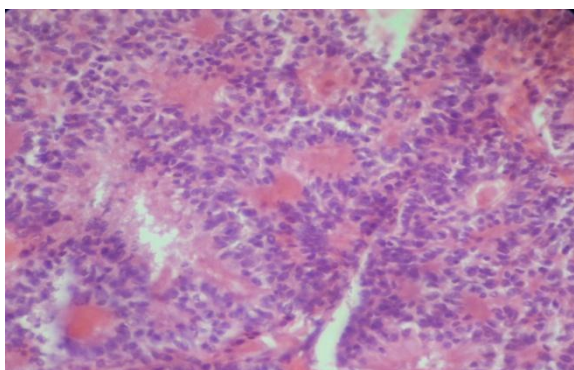
Papillary serous cystadenocarcinoma ovary (h&e x 40)



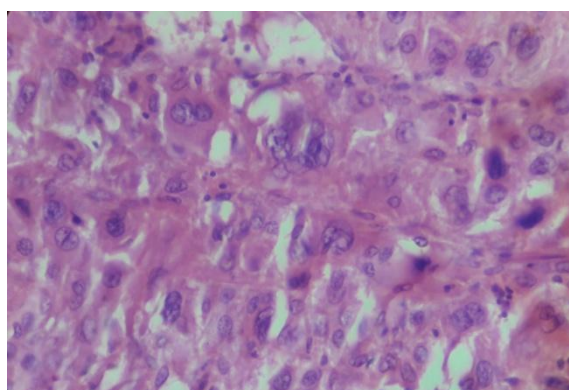
Leiomyosarcoma h&e x 40



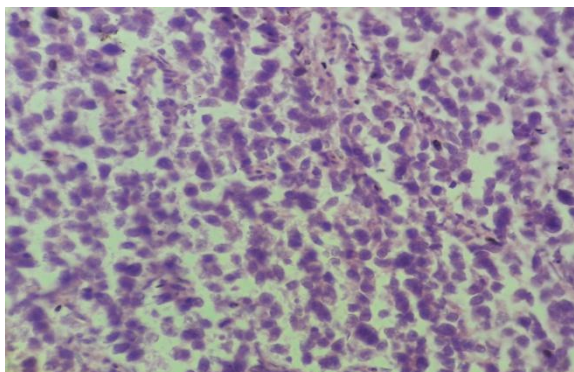
Metastatic adenocarcinoma ovary h&e x 40



Granulosa cell carcinoma (h&e x 40)



Choriocarcinoma (h&e x 40)



Dysgerminoma ovary (h&e x 40)

## 5. Conclusion

Our study provides information about various histological types of female genital tract malignant tumours prevalent in our region. The inaccessibility to health care facilities, lack of awareness and effective screening methods such as pap smear are responsible for such high frequency of malignancies. The missing cases affect the overall prevalence of cancers.

Synchronous gynaecological malignancies, though rare clinical entity, are of great concern due to younger age of presentation. There is a need for aggressive education of doctors and awareness of public about the screening methods.

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