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Research Article

## CLINICOPATHOLOGICAL PATTERN OF GYNAECOLOGICAL MALIGNANCIES AT OBSTETRICS AND GYNAECOLOGICAL UNIT, AZIZ BHATTI SHAHEED TEACHING HOSPITAL GUJRAT

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**Abstract:**

***Aim:** To examine the clinical-pathological pattern of gynaecological malignancies, including incidence, clinical presentation, age distribution, histopathological types and stage at diagnosis.*

***Study design:** A descriptive observational study.*

***Place and Duration:** In the Obstetrics and Gynaecology unit, Aziz Bhatti Shaheed Teaching Hospital Gujrat for two year duration from February 2017 to February 2019.*

***Methods:** 10,799 total women were admitted during the study time. All patients with genital tumours were selected by purposive non probability sampling. Patients with benign tumours were not included. The physical examination, history and study details were collected. Necessary surgical procedures were performed. The tumours were graded clinically, surgically and confirmed histopathologically.*

***Results:** The gynaecological cancer incidence in our facilities was 35 (0.32%), in total 10 799. The most common ovarian cancer was 22 (62.86%), then 8 (22.86%) of uterus and 5 (14.29%) of cervix. In the 50-75 age group, ovarian cancer was noted usually, in the 60-75 age group uterine cancer, and cervical cancer in the 40-49 age group. The most common ovarian cancer was serous cystadenocarcinoma, 12 (54.55%); and squamous cell cancer 3 (60%), endometrioid adenocarcinoma 6 (75%), were the most common types of cervical and uterine cancer. Gastrointestinal upset, 11 (31%), abdominal distension, 13 (37%), postmenopausal bleeding 11 (31%), vaginal discharge 11 (31%) and irregular vaginal bleeding 9 (26%) were the utmost usual symptoms. Most ovarian cancers were in advanced stage 21 (95.4%), and uterine cancers were diagnosed usually at initial stages 5 (62.5%).*

***Conclusion:** The most common gynaecological cancer is ovarian cancer in advanced stages. More thorough study of epidemiology and the screening methods should be carried out effectively to decrease the gynaecological cancer burden and awareness of early symptoms in women.*

***Key words:** Gynaecological malignancies, endometrium, staging, ovarian cancer.*

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**INTRODUCTION:**

Cancer is one of the main causes of death and misery in developed and under developed countries. Gynaecological cancer, like other types of cancer, puts too much pressure on people, communities and families<sup>1-2</sup>. Qualitative data are important for operative cancer control and form the basis for developing programs and policies<sup>3</sup>. Comprehensive global cancer statistics from an international cancer research support show that gynaecological cancer accounts for 18.9% of estimated 5.09 million new cases of cancer, 3.0 million mortality related to cancer, and 12.8 million ovarian cancer cases in 2002, not just the most common gynaecological cancer is the deadliest with a five-year survival rate of 30% . This poor overall survival is due to the absence of symptoms in the initial stages and relatively inaccessible and deep position of the ovaries<sup>4-5</sup>. In industrialised countries, the cervical cancer incidence has been regularly reduced due to effective vaccines and well developed cervical screening programs, but in developing countries these services are scarce; endometrial cancer is considered the least challenging in the world because of its early diagnosis and high cure rate<sup>6-7</sup>. Vaginal and vulval cancers are rare genital cancers. An important difficulty in under developed regions is the lack of knowledge of health statistics and accurate population. So, the incidence of different types of cancer cannot be reliably calculated<sup>8</sup>. In such cases, hospitals data should be used as relative frequencies of cancer prevalence<sup>9</sup>. Estimating cancer load is vital because it prioritizes disease control. Although the frequency of female genital malignancies in Pakistan is relatively high, there is very little consciousness on this issue. This prospective study was conducted to govern the clinical-pathological pattern of gynaecological malignancies, including symptoms, age, relative frequency of different types of cancer, staging and histopathological types. This will support to

develop effective approaches for the detection, early detection and timely management of these cancers.

**MATERIALS AND METHODS:**

This prospective study was held in the Obstetrics and Gynaecology unit, Aziz Bhatti Shaheed Teaching Hospital Gujrat for two year duration from February 2017 to February 2019. All gynaecological malignancies patients who were diagnosed radiologically surgically or clinically were selected for this period. The patients of benign tumours were not included. All data related to age, physical examination, clinical picture, required surgical procedures, tests, staging (histopathological, clinical or surgical) and type of final histological cancer are presented in a pre-designed Performa. The diagnosis was established by the samples of histopathology taken at surgery or in the chorio carcinoma cases by levels of beta HCG. SPSS 18.0 was used for data analysis. The percentages and frequencies were used to analyze the data. The standard deviation was calculated for mean, median and age.

**RESULTS:**

The total numbers of admissions in this 2-year period were 10,799. 35/10799 (0.32%) was the incidence of gynaecological incidence. The ovarian cancer rate was the highest among 22/35 (62.86%); 8/35 (22.86%) of cervical cancer and 5/35 cervical cancer (14.29%) were the 2<sup>nd</sup> and 3<sup>rd</sup> correspondingly. There were no cases of primary vulvar and vaginal cancer, but vaginal growth was seen in one patient due to primary chorio carcinoma, the other 3 had secondary vaginal involvement due to primary endometrial, cervical and ovarian cancer, correspondingly. 53.09 ± 11.82 years was the patients mean age; the mean age of cervical, uterine and ovarian cancer was 52.40 ± 8.02, 58.75 ± 8.80 and 51.18 ± 13.12 years, correspondingly.

**Table 1: Age distribution of patients with gynaecological malignancies.**

Age Range (Years)	Ovary	Uterus	Cervix
Less than 40	3	-	-
40 – 49	4	1	3
50-59	8	1	-
60 and above	7	6	2

Amongst the ovarian cancer patients, the largest ratio was observed in the age group 50–75 years (68.1%). The 14 years old female was the youngest one and had Dysgerminoma with malignant ascites. The patients in the uterine cancer group were 6 (75%) in the age group 60 to 75 years old and 38 years was the minimum age of the patient in this group.

Table 2: Range, median and mean ages for different gynaecological cancers

Site of cancer	Range (Years)	Median age (Years)	Mean Age (Years)	Std. Deviation (Years)
Ovary	14-75	53.50	51.18	13.12
Uterus	42-70	60.50	58.75	8.80
Cervix	45-70	49.00	52.40	8.02
<b>Total</b>	<b>14-75</b>	<b>55.00</b>	<b>53.09</b>	<b>11.82</b>

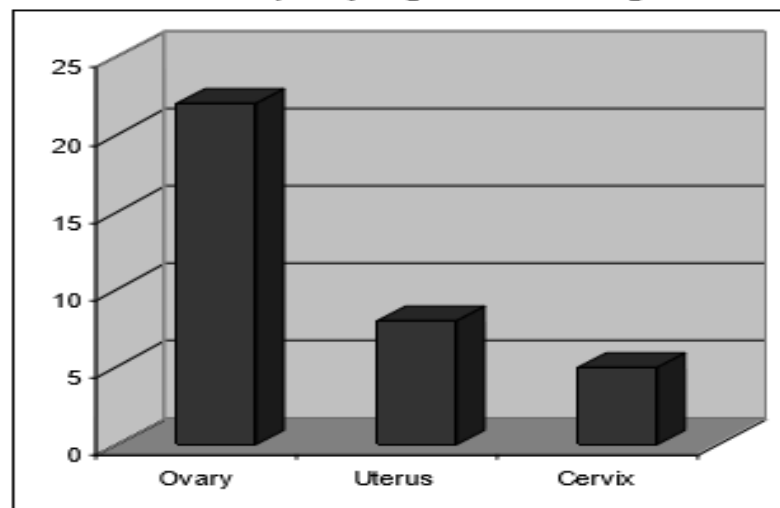
The patient died of many metastatic lesions due to chorio carcinoma. Patients with cervical cancer were frequently in the age group of 40-49 (60%) 45 years old patients were the youngest one. A very interesting and important finding was that forty percent of all patients were under 51 years old. The utmost common clinical demonstrations are presented in Table 3.

Table 3: Clinical Presentation of Different Gynaecological Cancers

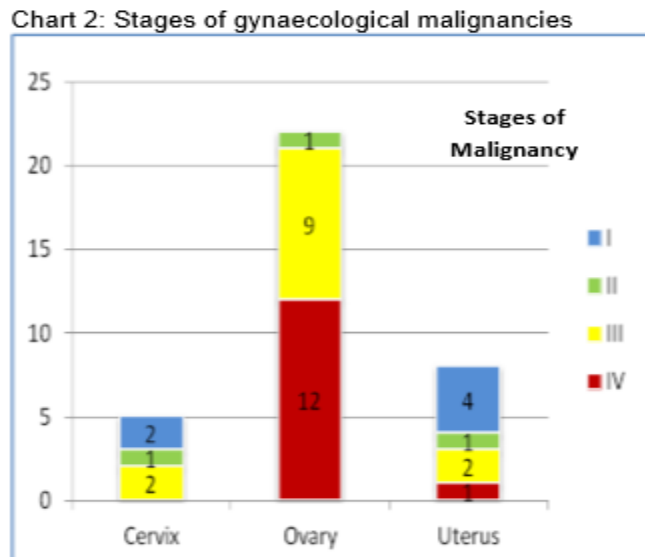
Presenting Symptoms	Ovary	Uterus	Cervix	Total
Irregular vaginal bleeding	5(23%)	1(13%)	3(60%)	9 (26%)
Post menopausal bleeding	3(14%)	6(75%)	2(40%)	11(31%)
Vaginal discharge		7(88%)	4(80%)	11(31%)
Abdominal distension	13(59%)			13(37%)
Abdominal mass	4 (18%)			4 (11 %)
Abdominal Pain	4 (18%)			4 (11%)
Gastro intestinal upsets	11(50%)			11(31%)
Loss of weight	2(9%)			2 (6%)

Ovarian tumours presentation was consisted with gastrointestinal disturbance, abdominal weight and abdominal distension while cervical and uterine cancers presented mostly with abnormal vaginal bleeding and vaginal discharge.

Chart-1 Relative frequency of genital tract malignancies



These types of cancer had significant overlays between different clinical presentations. Twenty-one ovarian cancer patients (95.4%) were presented in progressive stages (stages III and IV in Fig. 6), and five uterine cancer patients (62.5%) presented at the early stages (stages 1 and 2 in Fig. 7).



Three (60%) cervical cancer patients admitted in last stage and 2 (50%) in early stages. Serous cyst adenocarcinoma was the most common ovarian cancer in twelve (54.5%) patients. Endometrioid adenocarcinoma was the utmost usual uterine cancer in six (75%). Of the cervical cancers, squamous cell carcinoma was noted in 3 (60%) and adenocarcinoma in 2 (40%).

Table 4: Histopathological types of gynaecological cancers

Histopathological Types	Cervix	Uterus	Ovary	Total
Adenocarcinoma cervix	2			2
Choriocarcinoma		2		2
Clear cell ca			2	2
Dysgermoma			1	1
Endometriod adenocarcinoma		6		6
Endometriod ovarian carcinoma			1	1
Malignant non hodgekin's lymphoma			1	1
Mesothelioma			1	1
Mucinous cyst adenocarcinoma			3	3
Serous cyst adenocarcinoma			12	12
Squamous cell ca	3			3
Transitional cell ca			1	1
Grand Total	5	8	22	35

Table 4 lists the various histopathological types.

### DISCUSSION:

Gynaecological neoplasms constituted 0.32% of all obstetric and gynaecological admissions at our institution of higher education, but were lower than 4.18-4.7% in Nigeria<sup>10-11</sup>. The most common ovarian cancer in our study was consistent with that reported in other studies in Pakistan; Studies in Africa show that cervical cancer is the most common cancer of the genitals. In a study carried out in Karachi, cervical cancer is the most common cancer of female genitalia. Many publications from developed countries have shown that cervical cancer is the most common gynaecological cancer due to lack of vaccination against the most popular

human papillomavirus. Our study can show low cervical cancer, low tobacco consumption in women, compliance with social norms, religious practices and male circumcision<sup>12</sup>. Most ovarian tumours are said to originate from the superficial epithelium. Similarly, 90.9% of ovarian cancer cases in our study were epithelial, well correlated with the Peshawar study. Serous cyst adenocarcinoma was the most common cancer occurring in our study and consistent with other researchers in Pakistan and India, Ahmed *et al*. Cyst adenocarcinoma was the most common variant. Thirty (85.7%) of the 35 gynaecological cancers in the 40-69 age group were significantly

higher than 72.2% reported by Briggs<sup>13</sup>. However, ovarian cancer has been found in most of our 15 studies (68.1%), which is well associated with the African study in Ghana, mainly between the ages of five and seven years. Four (40%) of all malignancies occurred before the age of 51; this means that the ovaries, abdominal area and pelvis should be examined in such a way that each time they visualize the cervix and during procedures such as laparoscopy, sterilization and caesarean section<sup>14</sup>. Endometrial evaluation is important in patients with menstrual bleeding, infertility, postmenopausal and irregular vaginal bleeding. In our study, the average age of cervical cancer was  $52.4 \pm 8.02$  years; this was significantly different between the average age of 42 and 47 in Africa. Abdominal upset symptoms and unclear gastrointestinal disorders are well correlated with other studies in patients with ovarian cancer and patients with irregular or postmenopausal bleeding in patients with endometrial cancer and cervical cancer. It is a widely accepted phenomenon that most women with ovarian cancer develop with advanced diseases. In this study, Kasule et al. This may be due to early asymptomatic stages and a lack of early and effective detection methods<sup>15</sup>. Our study was also consistent with the general early observation of uterine cancer; five of our patients (62.5%) were in this category. This result is comparable to the result found by Nkyekyer.

### CONCLUSION:

This study provides basic data on the most common gynaecological cancers in our institution. The need for this hour is to intensify efforts to raise awareness among women about this type of cancer. Most ovarian cancers appeared in advanced stages from the fifth to seventh decades, while most uterine cancers were in the early stages of presentation. Cervical tumours appeared in relatively young women. To reduce mortality from these cancers, a larger, multicentre collaborative study is needed to identify risk factors, preventive strategies, detection methods and management guidelines.

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