

FREQUENCY AND PATTERN OF GYNAECOLOGICAL MALIGNANCIES AT A TERTIARY CARE HOSPITAL, PESHAWAR AN OVERVIEW OF FIVE YEARS OF A RETROSPECTIVE STUDY

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Abstract

Objective: The study aimed to evaluate the frequency and pattern of gynecological malignancies in a tertiary care hospital.

Materials & Methods: A 5 years retrospective analysis of all the patients having gynecological malignancies was done. A total of 82 cases were included in the study; 3 cases were excluded due to incomplete data. Relevant details regarding age, parity, histological type, stage of the disease were entered in a predesigned proforma. Frequency and percentages were calculated using SPSS vs. 17.

Results: The frequency of gynecological cancer was 0.314%. Ovarian cancer was the most common gynecological malignancy (64.55%), carcinoma endometrium was second in number (18.7%), while carcinoma vagina was the least common gynecological malignancy (1.26%). More than 2/3rd of ovarian cancer were diagnosed in advanced stages, while most of the endometrial cancer cases were diagnosed in early stages. Frequency of gynecological malignancy increased after 40 years. Most of the gynecological malignancies were diagnosed in multi and grand multipara.

Conclusion: Ovarian cancer was the most common gynecological malignancy, and most of the cases were diagnosed in advanced stages.

Keywords: Gynaecological malignancies, ovarian cancer, cervical cancer, endometrial cancer, staging.

INTRODUCTION

Gynecological malignancies are a group of different malignancies which include ovarian, endometrial, cervical, and vaginal and vulva cancers.¹

There are enormous variations in the rates of the

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geographical distribution of gynecological cancers around the globe. Cervical cancer rates in East Africa are 12 times greater than in West Asia.^{2,3,4} The rates of uterine cancer are nearly ten times higher in North America than in West Africa.⁴ Similarly, ovarian cancer is two and a half times more common in Northern Europe than in the Middle Africa.⁵ This may be because of variation in the environmental factors, diet, socioeconomic status, lifestyle, and genetics. Some but certainly not all of these variations

can be explained in terms of differences in lifestyle and public health interventions.^{3,6} As an underdeveloped country, in Pakistan, most of the gynecological cancers are diagnosed in advanced stages due to lack of screening and diagnostic investigations.⁷

Cervical cancer is the most common gynecological malignancy worldwide. In developed countries, due to the well-established screening program, the incidence and mortality from cervical cancer have dramatically fallen.^{8,9}

Ovarian cancer is the most common cause of death from gynecological malignancies. Most of the ovarian cancers are diagnosed in advanced stages due to nonspecific symptoms in the early stages of the disease.^{10,11} Epithelial ovarian cancers are the most common histological type. There is a uniform distribution of ovarian cancer between first to seventh decades of life, with a peak incidence in the 5th decade of life.¹¹

We have selected this topic to see the local trends in gynecological malignancies.

MATERIALS AND METHODS

This retrospective study was conducted in the Department of Obstetrics and Gynecology from January 2014 to December 2018. Data was collected from registers and charts. All the patients having gynecological cancers, either already diagnosed cases or those diagnosed for the 1st time during our unit were included. A total of 82 cases had gynecological malignancies; three patients were excluded because of the insufficient medical record. After selection details regarding age, parity, histological type of malignancy, and stage of the disease were obtained from the medical record and entered in the predesigned proforma. Mean±SD and frequencies were calculated using SPSS vs17.

RESULTS

A total of 25109 obstetrical and gynecological patients were admitted in the Gynae 'B' Unit from January 2014 to December 2018. Out of which 81 were having Gynaecological malignancies. Three patients were excluded because of the incomplete medical record. The frequency of gynecological malignancies was 0.314%.

Mean age of the patients was 49.12±9.02 years collectively. About 2/3rd of the patients were in the

age group between 40-60 years (Table 1). Regarding parity, most of the patients were either multi or grand multipara. Subanalysis of parity has shown that all the patients with carcinoma cervix were grand multipara. While 16.3% of patients with ovarian tumor were either nullipara or primipara (Table 2). Carcinoma of the ovary (64.55%) was the most common type of gynecological malignancy followed by carcinoma endometrium (18.99%). More than 2/3rd of ovarian cancers were diagnosed in advanced stages, while most of the endometrial cancer cases presented in early stages (Table 3). Epithelial ovarian tumor was the most common histological type of ovarian malignancies (Table 4).

DISCUSSION

Worldwide the burden of gynecological malignancies is on the rise. The incidence is more in the developing countries than the developed one, with approximately 5 million new cases diagnosed annually.¹³

In our study, the overall frequency of gynecological malignancies was 0.314%. Similar results were given by Mohyuddin et al.¹⁴ Manzoor H et al. has described a 12.5% frequency of gynecological malignancies in their study conducted at CENAR. The difference may be because CENAR is Centre of Nuclear Medicine and Radiotherapy which deals only with cancer patients.¹³

In our study, the frequency of gynecological cancers was highest during the 4th and 6th decade of life. Similar results were shown by Rehman et al., with a

Table 1: Age distribution of the patients (n=79)

Age (years)	Frequency
20-30	13(16.4%)
>30-40	8(10.1%)
>40-50	21(26.58%)
>50-60	27(34.17%)
>60	10(12.6%)

Table 2: Parity distribution of the patients (n=79)

Parity	Frequency
Unmarried	1(1.126%)
Nullipara	4(5.06%)
Primipara	8(10.12%)
Multipara	26(32.91%)
Grand multipara	40(50.63%)

Table 3: Site and stage of the malignancies (n=79)

Type	Stage 1	Stage 2	Stage 3	Stage 4	Total
Ca Ovary	1(1.96%)	2(3.92%)	35(68.6%)	13(25.49%)	51(64.55%)
Ca Endometrium	8(53.3%)	5(33.33%)	1(6.66%)	1(6.66%)	15(18.7%)
Ca Cervix	1(14.2%)	2(28.57%)	3(42.85%)	1(14.8%)	7(8.86%)
Ca Vagina	0	1(100%)	0	0	1(1.26%)
Ca Vulva	0	2(33.33%)	2(66.66%)	0	3(3.79%)
Choriocarcinoma	0	2(66.66%)	0	1(33.33%)	3(3.79%)

Table 4: Histological types (n= 79)

Site of malignancy	Histological type	Frequency
Carcinoma Ovary	Dysgerminoma	1(1.96%)
	Serous cystadenocarcinoma	28(54.9%)
	Mucinous cystadenocarcinoma	17(33.33%)
	Mixed mullarin tumor	2(3.9%)
	Juvenile granulosa cell tumor	1(1.96%)
	Krukenberg tumor	1(1.96%)
	Stromal Tumor	1(1.96%)
Carcinoma Endometrium	Adenocarcinoma	5(35.71%)
	Atypical hyperplasia	9(64.28%)
Carcinoma Cervix	Squamous cell carcinoma	7(100%)
Carcinoma Vagina	Squamous cell carcinoma	1(100%)
Carcinoma Vulva	Squamous cell carcinoma	3(100%)

peak incidence in the 5th decade of life.¹² In our study, carcinoma of the ovary was the commonest type of gynecological malignancy (64.55%), followed by carcinoma endometrium (18.98%). While carcinoma cervix ranked 3rd (8.86%). Manzoor H et al. in study conducted at CENAR has documented a 47% incidence of carcinoma ovary, while carcinoma cervix was second (29%).¹³ In another local study conducted by Akhtar Z et al., carcinoma of the ovary was the most common gynecological malignancy (51.2%), while carcinoma endometrium incidence was 23.3%.¹⁵ In a study conducted in India, carcinoma cervix was found to be the most common gynecological malignancy (61.9%), while carcinoma ovary was second in number with an incidence of 23.9%.¹⁶ The difference in the incidence may be because of the difference in the screening program and sexual behavior.

In our study, serous cystadenocarcinoma was the most common histological type of ovarian malignancy, followed by mucinous cystadenocarcinoma (54.9%, 33.33%). While all the cases of cervical, vaginal, and vulval carcinoma were of squamous histology. Akhtar Z et al. has also documented serious

cystadenocarcinoma as the most common histological type followed by mucinous (72.72%, 13.63%).¹⁵ In a study conducted in India, it was reported that adenocarcinoma was the most common histological type of all the ovarian malignancies. While 95.7% of cervical cancer cases were of squamous cell carcinoma.¹⁶ Similar findings were observed by Siyal et al., who noted squamous cell carcinoma as the most common cervical cancer (85%), while adenocarcinoma was the most predominant histological type in case of ovarian carcinoma.¹⁷

In our study, 94.09% of cases of ovarian malignancy were diagnosed in either stage 3 or 4. While 86.66% cases of carcinoma endometrium were diagnosed in early stages. Carcinoma cervix had a mixed presentation stage wise.

In a study conducted by Mohyuddin et al. 95.4% of cases of ovarian cancer diagnosed in stage 3 or 4. While 62.5% of cases of carcinoma endometrium presented in the early stages. Carcinoma cervix had a mixed presentation with 60% in an advanced stage and 40% in early stages.¹⁴ In a study conducted in India, 90% of the patients with gynecological cancers

presented in advanced stages (stage 2, 3).¹⁶ Similar findings were reported by Nasreen et al., with 75% of cases of ovarian and cervical malignancies were diagnosed in advanced stages. While 42.8% of cases of endometrial cancer presented in stage two.¹⁸ Jamala S et al. have also reported similar results in their study; ovarian cancer was the most common (42.4%) gynecological malignancy and the majority of the cases occurred between 30-59 years of age. The ovarian epithelial tumor was the most common histological type. Cervical cancer was the second most common tumor (23.86%).¹⁹

CONCLUSION

Ovarian cancer was the most common gynecological malignancy, and most of the cases were diagnosed in advanced stages.

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