



## Original Article

## Frequency and Diversity of The Cases Reported at Oncology Care Clinic of Holy Family Hospital Rawalpindi During August 2022

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## ABSTRACT

Although cancers are primarily attributed to genetic mutations, but environmental factors one way or the other are also responsible for influencing the growth of cancerous cells. **Objectives:** To determine the frequency and diversity of the cases reported at Oncology care clinic of Holy Family Hospital. **Methods:** A cross-sectional descriptive study was done to ascertain the frequency and diversity of cases that were reported to Oncology care clinic of Holy Family Hospital (HFH) Rawalpindi during August 2022. The data were collected by reviewing the hospital records of the patients. Data was analysed by SPSS version 25.0 and Microsoft Excel 2010. Percentage and frequency of all variables were computed. Statistical difference in mean age of male and females was determined by independent sample t-test.  $P < 0.05$  was considered significant. **Results:** Mean age of the total 23 cases reporting to Oncology clinic of HFH during August 2022 was  $49.91 \pm 15.12$  years. There were 14(61%) females and 9(39%) males. The gender-based difference in mean age was statistically insignificant ( $P > 0.13$ ) with 95% CI (-3.20 - 22.80). About 12 and 11 were confirmed and suspected cases respectively. The highest number of cases was first reported in Gynaecology & Obstetrics Unit-I, followed by medical units of HFH. Around 7(30.4%) patients were residents of twin cities (Rawalpindi & Islamabad). **Conclusions:** Middle aged females are comparatively more in need of screening for early diagnosis and treatment of certain benign and malignant illnesses than those of males.

## INTRODUCTION

Although cancers are primarily attributed to genetic mutations, but environmental factors one way or the other are also responsible for influencing the growth of cancerous cells [1]. The resultant cancer associated physical, physiological and anatomical variations among human beings are likely to affect their response to treatment [2]. Cancers are known to suppress the immune system of the patients approximately 60% of the mortalities among haematological malignant cases globally have been determined as secondary to infection [3,4]. Cancer is labelled as the second contributor towards global mortality after cardiovascular disorders [5]. Certain chronic infections are determined as the risk factors for

cancer in developing countries. Around 13% of the cancers worldwide are associated with definite viral infections that should be given due consideration by healthcare physicians before their progression to disastrous maladies [6]. However, its treatment is quite debatable due to availability of its wide-ranging cure in about more than 90% well developed and less than 5% less developed regions [7]. Every individual is likely to develop cancer with increasing age; however, the likelihood of getting cancer may vary depending on genetic susceptibility. The 5-year survival rate for all types of cancer has considerably escalated since 1960 among both black and white populations primarily due to implementation of secondary preventive

measures. New cancer cases predicted among people of United States during 2022 with highest propensity are the cancer of prostate and breast among males and females respectively [8]. Approximately 28.4 million cancer cases are expected till 2040 across the globe. Likewise, other regions, cancer is now prevailing in Asian countries as well [9]. According to International Agency for Research on Cancer (IARC), frequency of newly identified cases is approximately 0.18 million and case fatalities are 0.11 million [10]. These statistics direct towards the need of establishing cancer care service in public sector hospitals for the convenience of people belonging to low social class. The present study is intended to determine the trend as well as frequency of suspected or confirmed cancer patients reporting to the Holy Family Hospital that is a public sector teaching hospital affiliated with Rawalpindi Medical University. This study would open the gate for non-affording patients towards appropriate oncological services for fulfilment of their healthcare needs and will also acquaint the healthcare authorities about the magnitude of cancer related cases.

**METHODS**

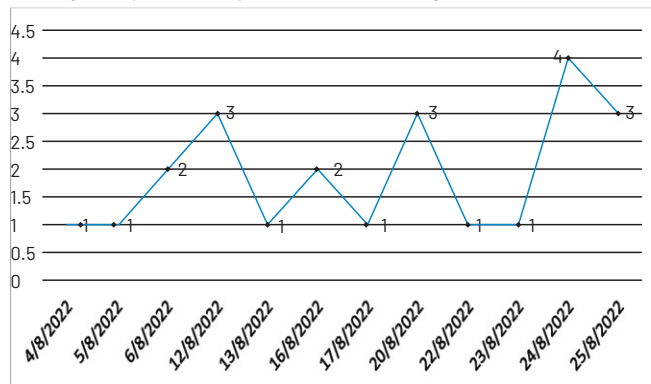
A cross-sectional descriptive hospital record based study was carried out to identify the frequency and diversity of cases who presented to oncology care clinic of Holy Family Hospital (HFH) Rawalpindi during August 2022. HFH was more than 900 bedded public sector tertiary care facility. As it was also a teaching hospital affiliated with Rawalpindi Medical University (RMU), this healthcare centre was equipped with substantial diagnostic and treatment modalities for the convenience of non-affording people [11]. Recently an Oncology care clinic is inaugurated in this teaching hospital to additionally deliver oncology related services. The data was gathered about the patients from oncology department register pertaining to age, gender, residential address and initial reporting department. Moreover, daily reporting cases along with their diagnosis either suspected or confirmed was also identified. Data was analysed by SPSS version 25.0 and Microsoft Excel 2010. Percentage and frequency of all variables were calculated. Gender based statistical difference in mean age of the patients was determined by independent sample t-test.  $P < 0.05$  was taken as significant.

**RESULTS**

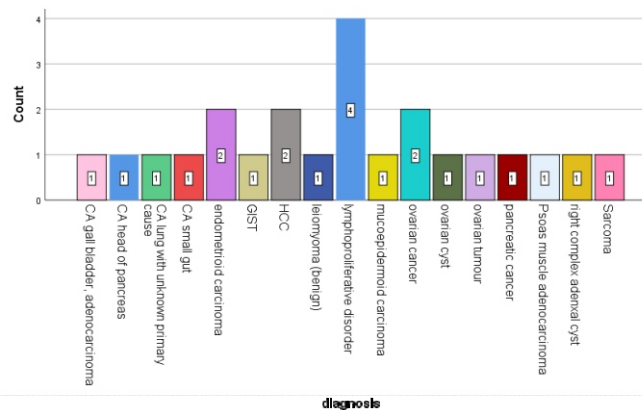
Mean age of the patients was  $49.91 \pm 15.12$  years. The male cases reporting to oncology clinic in ours study were elder than those of female; however, gender based differences in mean age of the registered patients was found to be statistically insignificant ( $P > 0.13$ ) as shown below in Table 1.

Mean age $\pm$ SD		p-value (95% CI)
Male patients (n = 09)	Female patients (n=14)	
55.9 $\pm$ 12.01	46.1 $\pm$ 16.04	0.13 (-3.20 – 22.80)

**Table 1:** Mean and standard deviation of Participants  
Trend of cases reported at Oncology care clinic of Holy Family Hospital is depicted below in Figure 1.



**Figure 1:** Trend of cancer cases seen at Oncology care clinic  
Of the total 23 cases visiting the oncology clinic of HFH, most (17.4%) had lymphoproliferative disorder followed by endometrioid, ovarian and hepatocellular carcinoma all in equal propensity (8.7%) as reflected below in Figure 2. Most (26.1%) of the cases visiting oncology clinic in our study were referred from Gynaecology Unit-I followed by referral from medical Unit-I (21.7%) and medical unit-II (17.4%) of Holy Family Hospital as shown below in Figure 2.



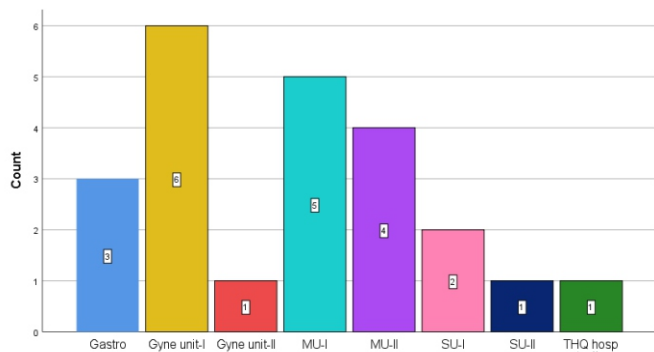
**Figure 2:** Cases presenting to oncology clinic during August 2022 (n=23)

Of the varying confirmed cases presenting in oncology care clinic of HFH, endometrioid cancer was determined in greatest magnitude as illustrated below in Table 2.

Sr. #	Cases	Frequency
1.	CA gall bladder, adenocarcinoma	1
2.	CA head of pancreas	1
3.	CA lung	1
4.	Endometrioid carcinoma	2
5.	GIST (Gastrointestinal Stromal Tumour)	1
6.	Leiomyoma	1
7.	Mucoepidermoid carcinoma	1
8.	Ovarian cyst	1

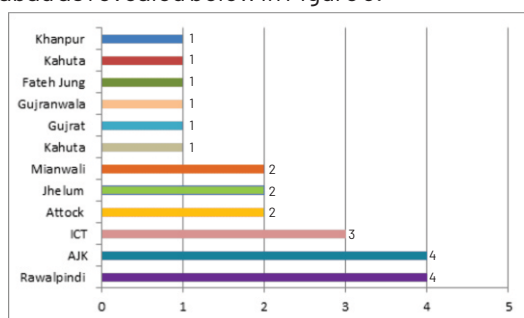
9.	Pancreatic cancer	1
10.	Psoas muscle adenocarcinoma	1
11.	Right complex adnexal cyst	1

**Table 2:** Confirmed cases of various ailments presenting to Oncology clinic(n=12)



**Figure3:** Clinical departments from where cases referred to oncology clinic

About 30.4% of the cases were dwellers of Rawalpindi and Islamabad as revealed below in Figure 5.



**Figure 4:** Residential address of the presenting cases(n =23)

## DISCUSSION

Approximately 4.45 million cancer related deaths and around 105 million cancer associated Disability Adjusted Life Years (DALY) worldwide during 2019 were attributed to certain risk factors commonly linked to life style mainly smoking, alcoholism, unsafe sex and obesity. The frequency of such risk factor accompanying cancer is known to be remarkably escalated in middle and low income countries [12]. In current study, mean age of patients presenting to oncology care clinic of a public sector teaching hospital was  $49.91 \pm 15.12$  years. Although male patients were comparatively elder than those of females; however, gender based difference in mean age was verified as statistically insignificant ( $P > 0.13$ ) as presented in Table 1. Likewise, a cross-sectional survey carried out among cancer cases of another Asian country to analyse their quality of life revealed their age of 51-60 years [13]. A similar study by Saeed S et al on cancer cases from tertiary care hospital of Karachi revealed mean age of cancer cases as  $42.3 \pm 15.07$  years [14]. A study by White MC

et al revealed that most of the middle aged people are susceptible to diverse cancers due to their exposure to multiple risk factors. Even one of the reasons for escalating incidence of cancer in our society nowadays is longer life expectancy that is associated with exposure to certain carcinogens present in the diet, environments, utensils or other objects that are in routine use [15]. Avoiding exposure to carcinogens is possible by ample studies on attributes of malignancies [16]. that would enable the investigators to identify substantial novel features contributing to the emergence of this deadly illness. Of the total 23 cases reporting to oncology clinic of a centrally located public sector hospital, 12 were confirmed cases while rest of 11 cases were suspected. As Holy Family Hospital is not equipped with oncological diagnostic facilities, so patients with clinical findings suspicious of cancer go to other laboratories for diagnosis of their ailments. Of the 12 confirmed cases in our study, there were 2 patients with endometrioid cancer while rest of the 11 patients had varying diagnosis. On broadly reviewing the global picture pertaining to cancer, lung cancer seems to constitute the greatest proportion of all prevailing malignancies among both genders alike followed by colon and stomach cancers [17]. Although colorectal, lung, liver, prostate, pancreatic head and neck cancers are the most frequently reported cancers in Pakistan, but maximum number of fatalities is attributed here to breast cancer [18,19]. As data of current study is based only on the cases of August 2022 who reported to Oncology care clinic, that's why breast cancer is missing. Contrary to our results, Karachi Cancer Registry Data 2017-19 revealed the greatest magnitude of breast cancer (76.07%) followed by oral (16.68%) and ovarian cancer (10.89%) among adult females. Adult males were maximally anguished (42.83%) with oral cancer [20]. Likewise, cancer registry in Lahore is being carried out since 2005 through its coordinating office established in Shaukat Khanum Memorial Cancer Hospital and Research Center. Scrutinization of cancer data from Lahore also divulged the highest incidence among females particularly that of breast cancer [21]. As only one and a half month has elapsed since establishment of Oncology care center at Holy Family Hospital, the definite picture pertinent to cancer cases here would be visible with reporting of more cases in next 2-3 years and also by provision of oncological diagnostic and other associated healthcare management facilities here for the suffering humanity.

## CONCLUSIONS

Females are comparatively more in need of screening for diagnosis and treatment of benign lesions and illnesses in

order to arrest their progression toward malignancies. Commencing the diagnostic services in public sector hospital would be beneficial for the non-affording population.

### Conflicts of Interest

The authors declare no conflict of interest.

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