

Knowledge and Attitude of Cancer Patients Towards COVID-19 Pandemic

Sobia Yaqub,¹ Zahid Jamil,² Numrah Bilal Butt,³ Amjad Zafar,⁴ Faiza Rehman Lodhi,⁵ Muhammad Abbas Khokhar⁶

Abstract

Objectives: This study is done to determine knowledge and attitude of cancer patients towards COVID-19 pandemic.

Methods: The study was conducted at Oncology Department, Mayo Hospital Lahore during August-October 2020. A questionnaire was used to determine knowledge and attitude of cancer patients towards COVID-19 pandemic. Data was analyzed using Spss version.23. Descriptive variables like gender, marital status, residence and disease characteristics were reported as means and frequencies. Intergroup analysis was done using Chi square test with $p < 0.05$ taken as significant.

Results: Of 269 enrolled patients, majority had advanced/metastatic disease (82.4%) and were being treated on outdoor basis (71.6%). Almost all (99.6%) were aware of COVID, electronic/print media being commonest source of information (62.7%). Though having different views, 81.5% considered it a natural calamity. During first wave, 22.4% had delayed their investigations while 34.7% faced treatment interruptions with average duration of delay being 55 ± 27 days. Traveling difficulties due to lock down was common reason of delay (54.8%). During this period 62.4% either noted worsening of symptoms or new symptoms. Despite all chaos, 89.9% selected for treatment continuation if provided with a chance and appropriate facilities. Correlation of delay in therapy with high level of education ($p = 0.013$) and perception about COVID-19 a natural calamity ($p = 0.041$) was found to be statistically significant.

Conclusion: Patients' perspective is important and should be taken into account in special circumstances like COVID. It will help in future in making efficient management planning of disease during unusual situations.

Key Words: COVID-19, cancer patients, Knowledge

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Introduction

Corona virus infection, named COVID-19 by WHO, is caused by SARS-COV2, which is primarily a respiratory virus. It emerged as global health problem by end of 2019, starting in China when people presented with pneumonia like illness and were diagnosed as having Corona virus infection.¹ WHO declared.² It as pandemic due to its rapid spread across the globe.⁽²⁾ It resembles other pneumonia in its

symptomatology but have a rapid rate of transmission.³ Most common clinical features include dry cough, fever, lethargy, sore throat, runny nose, alteration in taste and smell sensation. Severity of disease varies widely from asymptomatic to seriously sick requiring invasive ventilation^{4,5} Pakistan became affected by this pandemic by end of February with rapid surge of cases seen in March. To handle such an influx of COVID-19 cases, government imposed smart lock in the country.⁶ This situation affected routine social life and exerted detrimental financial issues⁷ With emergence of COVID-19, increased cost, decreased monthly income, travelling difficulties and fear of getting Corona virus illness led to marked reduction in acquisition of health care facilities.⁸ As per available data, cancer patients have higher risk of catching COVID-19 infection attributing greatly to frequent hospital visits apart from other patient and disease factors.⁹

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|-----------------------|---------------------------|
| 1. Sobia Yaqub | 2. Zahid Jamil |
| 3. Numrah Bilal Butt | 4. Amjad Zafar |
| 5. Faiza Rehman Lodhi | 6. Muhammad Abbas Khokhar |
- 1-6. Department of Oncology, King Edward Medical University.

Correspondence:

Dr. Sobia Yaqub, Department of Oncology, King Edward Medical University. Email: sobia_yaqub@yahoo.com

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Methods

Patients of various malignancies presenting to Department of Medical Oncology and Radiotherapy, KEMU/ Mayo hospital Lahore, were enrolled in study after taking informed consent. Data was collected via questionnaire. Various demographic factors like age, gender, diagnosis, stage was inquired. Questions were asked to know about their level of knowledge about COVID-19, and how they responded to this pandemic in terms of preventive measures, delays in cancer care, if any, and its possible consequences on life of cancer patients.

Collected data was entered and analyzed using statistical package for social sciences (SPSS) version 23. An initial frequency counts and percentages were obtained for all the data. Descriptive statistics were reported as mean, frequency and percentage. Intergroup comparisons were performed using Chi-Square test. All p values < 0.05 were reported as statistically significant.

Results

The study subjects ($n=269$) comprised 128(47.6%) males and 141 (52.4%) females with age range between 11-66years (mean 44 ± 14.40). Almost all the patients (99.6%) were aware of COVID-19 pandemic. 184 (68.7%) were found to be aware of symptoms correctly and 218(81.3%) perceived it as a different illness from common flu. A total of 216(80.6%) patients were found to be following precautionary measures as advised by authorities. When asked about risk of acquiring COVID illness by cancer patients, 196 (73.1%) responded an increased risk to cancer patients while 72(26.9%) said that cancer patients have risk equivalent to general population. During first wave, 22.4% had delayed their investigations while treatment interruptions were seen in 34.7% patients with average duration of delay being 55 ± 27 days and traveling difficulties due to lock down commonest reason of delay (54.8%). During this period 62.4% either noted worsening of symptoms or new symptoms. Despite this great threat, and increasing number of cases, only 27(10.1%) patients opted for discontinuation of their cancer therapy while 241(89.9%) decided to continue the therapy when given a choice. Correlation of delay in therapy with high level of education ($p=0.013$) and perception about COVID-19 a natural calamity ($p=0.041$) was found to be statistically significant.

Table 1: Demographic Data of Patients Included in the Study

Demographics	Count	% age
Total Number of Patient	n=269	100
Gender		
Male	128	47.58
Female	141	52.42
Marital Status		
Married	229	85.13
Unmarried/Single	40	14.87
Residence		
Rural	127	47.21
Urban	142	52.79
Disease Characteristics		
Diagnosis	Count	% age
Unknown	17	6.32
Hematological Malignancies	75	27.88
Non-Hematological Malignancies	178	66.17
Stage	Count	% age
Early Stage	16	5.95
Advanced or Metastatic	253	94.05
Patient Characteristics:		
Qualification	Count	% age
Unknown	32	11.89
Illiterate	96	35.68
$\leq 10^{\text{th}}$ grade	117	43.49
$>10^{\text{th}}$ grade	24	8.91
Mode of Transportation	Count	% age
Private Transport	16	5.95
Public Transport	253	94.05
Diagnosis	Count	% age
Unknown	17	6.32
Hematological Malignancies	75	27.88
Non-Hematological Malignancies	178	66.17
Stage of Disease	Count	% age
Early Stage	17	6.32
Advanced or Metastatic	252	93.68
Mode of Treatment	Count	% age
OPD Basis	193	71.75
As Indoor Patient	76	28.25
Average Number of rooms in house	3.25 \pm 1.36	
Average Number of family members	7.29 \pm 2.33	

Discussion

SARS -COV2 infection has affected people of > 150 countries of the world with patients presenting primarily with respiratory symptoms though varied presentation due to involvement of other body systems is not uncommon. Virus mediated tissue damage, endothelial injury, impaired immune function are common pathogenic mechanisms explaining vast spectrum of its clinical manifestations.^{10,11}

Table 2: Knowledge of Cancer Patients Towards COVID-19

	Number	%age
Source of Information:		
Electronic/print media	168	62.7
Social media	29	10.8
Relatives/friends	66	24.6
Health care worker	4	1.5
View about COVID -19		
Natural calamity	212	81.5
Plot by government	12	4.6
Man-made virus	17	6.5
It has no existence	16	6.2
Is it a threat to life?		
Major threat	123	45.9
Mild threat	86	32.1
No threat at all	20	7.5
Mode of transmission		
Via droplets	153	57.1
Air borne transmission	21	7.8
Person to person	68	25.4
Via contaminated food	12	4.5
COVID case in friends/relatives		
Yes	69	25.7
No	200	74.3
Death due to COVID in friends/family		
Yes	16	6
No	253	94.05

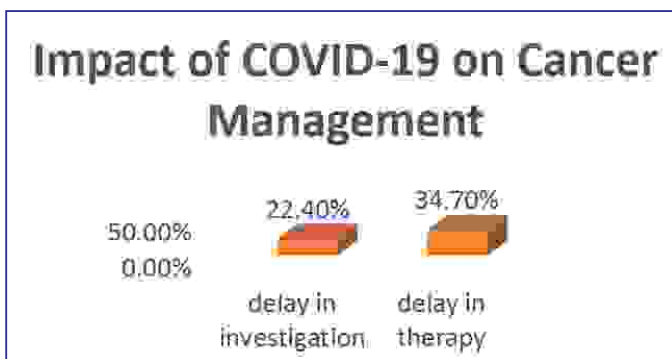


Fig. 1: Impact of COVID-19 on Cancer Management

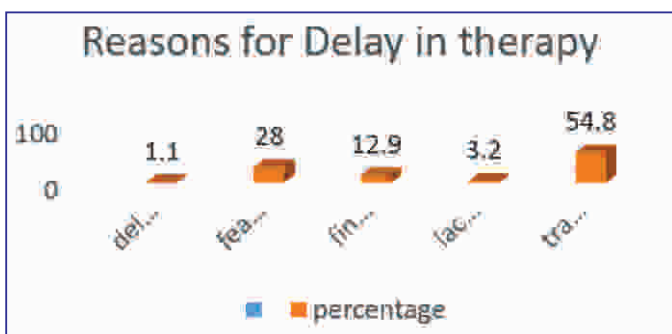


Fig. 2: Reasons for Delay in Therapy

Data has shown increased morbidity and mortality in cancer patients as compared with general population.

Old age at present-tation, weakened immune system, presence of multiple co-morbidities, need of frequent hospital visits are important reasons of increased vulnerability of cancer patients towards COVID-19 illness.⁹ In a study, all cause 30 days mortality was found to be significantly higher in cancer patients.¹² Diagnosis of cancer in general is considered as death sentence to affected. It is common observation that people when diagnosed with chronic lethal disease like cancer, let no stone unturned to get rid of it which often proves to be a futile effort. To achieve an effective cure/ symptomatic relief of symptoms is a physical and psychological trauma to patients and his/her caregivers. It poses social, psychological, financial burden on their lives but they continue their fight for survival.

COVID-19, with its strikingly high spread across the world, compelled governing authorities to impose lock down to control rate of transmission. It was implemented in almost all countries including Pakistan. This lock down apart from achieving its primary goal, exerted great difficulties in life of people especially developing countries like Pakistan where people suffered greatly not only from financial and social issues but also mental and physical health related issues. Health issues were partly from fear of getting corona infection and largely due to economic burden, travelling difficulties and non-availability of effective health care services.

In this study, we focused on perspective of cancer patients towards this pandemic. The study showed that advancement of telecommunication has led every one aware of the disease though majority of the respondents were illiterate and belonging to poor socio-economic status. Despite facing so many difficulties, majority having advanced incurable disease and different believes towards nature of COVID illness, treatment delays were seen in only 34.7% of patients which was largely due to travelling difficulties. It shows that although they have higher risk of potentially life-threatening illness, people opted for cancer treatment as they considered it more important likely because it is an issue which has greater impact on their health and lives. Important is to note that correlation of delay in therapy with level of education and their views about pandemic was found to be significant. It emphasizes that particular attention should be given to education of our people so they better understand exact nature of various illnesses

and their impacts which in turn lead to improvement in health of our people.

Conclusion

There is a strong need that we should focus on patients' perspective regarding their chronic debilitating illnesses like cancer in special circumstances like COVID-19 pandemic. This will help us in making effective strategies towards management of diseases like cancer without losing control during unexpected situations like pandemic.

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Authors Contribution

SY,MAK: Conceptionlization of Project

ZJ,NBB: Data Collection

SY: Literature Search

SY,AZ: Statistical Analysis

FRL: Drafting, Revision

SY,AZ,MAK: Writing of Manuscript