

Profile of Cancer Patients Attending Manipal Teaching Hospital, Pokhara, During the COVID-19 Pandemic

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ABSTRACT

Introduction: Due to the SARS COVID-19 pandemic, cancer services were suspended worldwide. The cancer patients were at high risk of getting SARS-COV-Infection due to their immunocompromised condition.

Methods: This was a single-institution retrospective quantitative study carried out from 1st May 2020 to 30th October 2020 at the Oncology Department of Manipal Teaching Hospital during the early COVID 19 pandemic for 6 months.

Results: In total 339 patients were seen in a period of 6 months. Male patients were 212 (62.5%) and female were 127 (37.4%). The most common cancer in our study was lung 47 (13.9%), breast 32 (9.4%), colorectal 30 (8.8%), and stomach carcinoma 21 (6.2%) respectively.

Conclusion: Though in this hard time of Pandemic, there was a substantial increase in cancer patients, and all of them were managed thoroughly.

Keywords: Carcinoma; COVID-19; Pandemics

INTRODUCTION

The ongoing COVID 19 pandemic, also known as coronavirus disease 2019 (COVID-19), is caused by severe acute respiratory syndrome coronavirus 2 (SARS-Cov-2). The health care services were extremely interrupted worldwide due to this deadly coronavirus 2019 (COVID).¹ The first case was identified in Wuhan in December 2019 and then rapidly spread throughout the world and was declared a pandemic on 11 March 2020 by WHO.² Due

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to this virus and lockdown the whole health care services were affected. It affected the cancer treatment where most of the anti-cancer drugs are imported from other countries. The patients were also influenced by many ways like screening, diagnosis, palliative treatment, chemotherapy, and regular follow-up. Due to this pandemic, there was a shortage of anti-cancer drugs and commodities so regular chemo protocol could not be maintained.³⁻⁵ There was a shortage of anti-cancer drugs, personal protective equipment (PPE), frontline health workers, and essential other supportive drugs due to the sealed country border.⁶⁻⁷ We were left with no options but to accept the challenge and manage the oncology services. In these 6 months, we treated 339 new patients. Special precaution was taken during the screening of COVID and treatment of cancer patients. Those patients who were tested positive were isolated for 2 weeks. Due to the immunocompromised state additional fear and anxiety occurred during the treatment.⁸⁻⁹ This all lead to delay in the treatment of newly diagnosed patients and rescheduled the chemotherapy treatment date for old patients who were on chemotherapy.¹⁰⁻¹¹ The main aim of this study was to find out the total number of patients, the profile of the patients, and the impact of COVID-19 pandemic on cancer patients who attended Manipal Teaching Hospital.

METHODS

This was a single-institution retrospective quantitative study carried out from 1st May 2020 to 30th November 2020 at the Oncology department of Manipal Teaching Hospital during the early COVID 19 pandemic for 6 months. Ethical clearance was taken from the institutional review committee for the study. For this retrospective study, the data were retrieved from the medical record department who were admitted and the outpatient department from the hospital during the COVID-19 pandemic to conclude the total number of patients with active cancer. This

was done to find out the total number of patients with active cancer either solid or hematological malignancies during the COVID-19 pandemic. Patients of all ages were included in the study. Proper histopathology reports of the patients were recorded which include age, stage, and metastatic site. Personal smoking and drinking habit of the patients were asked and noted. Quantitative values of the data were presented as mean \pm SD. For statistical analysis, SPSS software version 25.0 was used.

RESULTS

In total 339 cancer patients the mean age of the patient in this study was 60.77 % + 14.74 (13-91) years. Male patients were 212 (62.5 %) and female were 127 (37.4%). The most common cancer in our study was lung, breast, colorectal, and stomach carcinoma respectively. Lung carcinoma patients were 47 (13.9%), breast carcinoma 32 (9.4%), colorectal carcinoma 30 (8.8%), and carcinoma of stomach 21 (6.2%). In this study 150 (44.2%) gave a history of smoking and 115 (33.9%) had a history of alcohol consumption. The mean age of lung carcinoma patients was 69.43 +10.71 (40-91) years. Among the lung carcinoma patients, 23 (48.9 %) were male and 24 (51.9 %) were female. Most of the histology in lung carcinoma was squamous cell carcinoma 26 (55.33%), adenocarcinoma 14 (29.8%), and small cell carcinoma 7 (14.9%). Most of them were presented at the stage of III, 23 (48.9%). Among these patients, 31 (66%) patients gave a history of smoking and 12 (25.5%) had a history of alcohol consumption.

The second most breast cancer patients' mean age was 48.75+9.6 (29 – 71) years. Female patients were 31 (96.8%) and male patients were 1 (3.1%). Invasive ductal carcinoma 24 (75%) was the most common histology and presented at the stage of II, 20 (62.4%). In our study, we found 6 (18.8%) patients had a history of smoking and 3 (9.4%) had a history of alcohol consumption.

The third most colorectal carcinoma patients'

mean age was 48.75 +/-9.63 (29-71) years. Among them, male patients were 16 (53.4%) and female were 14 (46.6%). Most of the patients were presented at the stage of II, 12 (40%). In this study, 15 (50%) patients gave a history of smoking and 18 (60 %) patients gave a history of alcohol consumption.

The fourth most common stomach cancer patients' mean age was 63.4% +/- 13.2 (32-90) years. Male patients were 15 (71.4%) and females were 6 (28.6%). Most of these patients were presented at the 3rd stage 12 (57.1%). In this study, 11 (52.4%) patients gave a history of smoking and 42.9% gave a history of alcohol consumption.

Table 1: Demographics variance in patients

Headings	Variation	Percentage
Positive history of smoking	189	55.8%
Positive history of alcohol intake	224	66.1%
Positive history of smoking	189	55.8%

Table 2: Distribution of patients according to malignancy type

	Frequency	Percentage
Lung	47	13.9
Breast carcinoma	32	9.4
Stomach	21	6.2
NHL	20	5.9
Colon	16	4.7
Ovary	15	4.4
Prostate	13	3.8
Rectum	14	4.1
Prostate	13	3.8
Brain tumor	11	3.2
Gall Bladder	10	2.9
HCC	10	2.9
Pancreas	10	2.9
Urinary Bladder	9	2.7
CUP	9	2.7
HL	9	2.7
Esophagus	8	2.4
CML	7	2.1
Multiple Myeloma	7	2.1
NPX	7	2.1
Thyroid	7	2.1
Total	339	100

NHL= Non Hodgkin’s Lymphoma
 HHC = Hepatocellular carcinoma
 CUP = Carcinoma of Unknown Primary
 HL = Hodgkin’s Lymphoma
 CML = Chronic Myeloid Leukemia
 NPX = Nasopharynx

Table 3: Site of metastasis

Site	Frequency	Percentage
Bone	16	4.7
Brain	3	0.9
Neck	6	1.8
Liver	1	0.3
Lung	1	0.3
None	274	80.8
Total	339	100.0

DISCUSSION

In our study, we found the most common cancer was lung carcinoma (Table 2) and a similar finding was found in Poudel et al.¹² The major cause of getting lung carcinoma was found to be smoking and like was air pollution, pesticide and family history.

The second most common cancer in our study was found breast carcinoma though earlier in another study it was found cervical carcinoma was the second most common cancer due to the regular screening and effective use HPV vaccination program it has gone down. A similar finding was found in Ranjeeta Subedi et al.¹³ The mean age for breast carcinoma is 48 years and the causative factors are oral contraceptive, radiation, smoking, alcohol consumption, early menarche, and obesity. The third most common cancer found in our study was colorectal carcinoma. The third most common cancer was found to be breast in Shrestha Gambir et al.¹⁴ The difference between our studies is because in their study the survey was done in whole over Nepal and our study was done only in Pokhara. Most of the colorectal carcinoma presenting age was 50 and above and an almost similar finding was found in our study. The risks of colorectal carcinoma are family history, inflammatory

bowel disease, alcohol, tobacco, and obesity. In this study period, there were 6 (1.7%) mortalities due to COVID-19 infection in cancer patients. Hence what we found in our study was that in total we saw 339 patients with lots of obstacles but still managed to see all the patients. Old age, low physical activity, obesity, alcohol consumption, smoking, tobacco, abusing oral contraceptives without knowledge, junk foods, radiation, pesticide, and chronic infection are the main causing carcinogenesis.¹⁵ As we can see in our study male population are prone to have a high incidence of cancer than female, maybe this is due to the high consumption of alcohol and smoking by the male.

CONCLUSION

Due to the COVID-19 pandemic, radical and palliative treatment for cancer patients was challenging and difficult to manage for their given treatment schedule. But we still managed to see all the patients with proper protection. Due to partial and complete lockdown, there was a substantial increase in cancer patients, who were getting their treatment in another center. Lung cancer and breast were the most common cancer. There were 1.7% mortalities due to COVID-19 infection.

CONFLICT OF INTEREST

None

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None

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