

EVALUATION OF QUALITY OF LIFE OF PATIENTS WITH MALIGNANCY DURING THE COVID-19 PANDEMIC

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Abstract: *The study's objective was to evaluate patients' quality of life with malignancy during the Covid-19 pandemic. This study was conducted at the Department of Oncology, Anmol Hospital, Lahore, from August 2020-February 2021. 250 stage III and IV cancer patients undergoing chemotherapy were selected for the study. The patients were asked to complete a questionnaire regarding the ongoing covid-19 pandemic, their cognitive responses to it, their preventive measures, and access to medical treatment. In addition, patients were also asked to respond to the European Organization for Research and Treatment of Cancer quality of life. The data analysis showed a significantly low quality of life for pandemic cancer patients (42.6) compared to non-pandemic patients (61.5). The physical (69.1 vs. 71.2) and emotional functioning (69.5 vs. 71.5) did not vary significantly in both groups; however, the cognitive (70.8 vs. 83.2) and social functioning (68.3 vs. 75.1) were significantly high in the reference group ($p < 0.001$). The pandemic did not have much effect on the role functioning of cancer patients. The symptom scale showed a higher value in pandemic patients than the non-pandemic patients, with insomnia (41.0), fatigue (42.7), and appetite loss (27.4) being the most common symptoms. Thus, it can be concluded that the quality of life of cancer patients is seriously affected by covid-19. Thus, necessary measures should be taken to improve such circumstances.*

Keywords: Oncology, Covid-19, Cancer patients, quality of life

Introduction

The sudden coronavirus pandemic has affected all fields of life, especially the medical sector (Liang et al., 2020). Almost everyone has experienced its harmful impacts, including unemployment and isolation, and without vaccination or any treatment, the number of cases is rising at an accelerated rate. Healthcare delivery is also severely affected due to social distancing and fear of disease transmission. Cancer patients are most affected by these measures as the number of active doctors has been reduced, and economic crises are increasing rapidly, leading to delayed treatments. These adverse effects on the quality of life of cancer patients are a cause of concern for physicians and patients and directly affect the disease progression (Lemon et al., 2003). Cancer patients face a dilemma where staying at home to prevent being infected with Covid-19 can increase tumor progression due to no treatment, and visiting the hospital to get treated may result in catching the virus (Saini et al., 2020). This study

aims to evaluate patients' quality of life with malignancy during the coronavirus pandemic.

Methodology

A prospective study was conducted in the Oncology Department of Anmol Hospital, Lahore, from August 2020- February 2021. 250 stage III and IV cancer patients undergoing chemotherapy were selected for the study. All the patients provided their signed consent to become a part of the study. The patients were asked to complete a self-designed questionnaire regarding their demographic data, ongoing covid-19 pandemic, their cognitive responses to it, their preventive measures, and access to medical treatment. In addition, patients were also asked to respond to the European Organization for Research and Treatment of Cancer quality of life (Aaronson et al., 1993). This questionnaire is a 30-item tool to assess the social, physical, and psychological

functions of cancer patients. The data were compared with those obtained from patients in Scott et al. (Scott et al., 2008) under normal conditions. The Ethical board of the hospital approved the study design.

All the data were analyzed by using SPSS version 23. A t-test was performed to compare the results of cancer patients during the pandemic and non-pandemic patients from Scott et al. A p-value less than 0.05 was regarded as statistically significant.

Results

A total of 250 stage III and IV cancer patients undergoing chemotherapy were included in the

study. The data analysis showed a significantly low quality of life for pandemic cancer patients (42.6) compared to non-pandemic patients (61.5). The physical (69.1 vs. 71.2) and emotional functioning (69.5 vs. 71.5) did not vary significantly in both groups; however, the cognitive (70.8 vs. 83.2) and social functioning (68.3 vs. 75.1) were significantly high in the reference group ($p < 0.001$). The pandemic did not have much effect on the role functioning of cancer patients. The symptom scale showed a higher value in pandemic patients than the non-pandemic patients, with insomnia (41.0), fatigue (42.7), and appetite loss (27.4) being the most common symptoms.

Table I. Comparison of quality of life in COVID and non-COVID cancer patients with Covid-19

Quality of life	Covid patients (n=250)		Non-covid patients (n=8066)		P value*
	Mean	Standard deviation	Mean	Standard deviation	
Global health status	42.6	23.0	61.5	23.6	<0.001
Functional scales					
Physical functioning	69.1	22.4	71.2	25.8	0.07
Role functioning	67.2	31.9	70.6	32.8	0.10
Emotional functioning	69.5	26.4	71.5	23.8	0.08
Cognitive functioning	70.8	26.6	83.2	21.3	<0.001
Social functioning	68.3	26.1	75.1	28.9	<0.001
Symptoms scale					
Fatigue	42.7	24.7	34.7	27.9	0.004
Nausea and vomiting	11.3	20.0	7.8	17.3	0.07
Pain	31.6	24.9	29.2	30.8	0.30
Dyspnea	24.7	31.1	21.7	28.7	0.28
Insomnia	41.0	23.2	28.5	31.7	<0.001
Loss of appetite	27.4	27.5	20.8	31.0	0.007
Constipation	21.8	33.8	17.0	28.4	0.096
Diarrhea	12.5	29.5	8.3	19.5	0.092
Financial difficulties	36.5	32.6	15.4	27.7	<0.001

* T-test was performed

Discussion

The covid-19 pandemic has affected the healthcare sector badly. Cancer patients have been facing difficulties with access to treatment and functional, symptomatic and financial difficulties (Yusuf, 2020). As employment has accelerated rapidly in this era, cancer patients face financial challenges due to declining economic conditions and are forced to reconsider their treatment options.

Wang and Zhang (Wang and Zhang, 2020) reported that as the need for healthcare services arises for patients affected with covid-19, cancer patients may be compromised in their treatment as blood

transfusion and intensive care units would be prioritized for covid rather than oncology patients. The social distancing, ban on gathering, and use of green spaces have also impacted the social health and symptoms of the patients, like fatigue due to the stress of delay of their treatment and inadequate health care (Chen et al., 2020). As indicated by our survey results, the social abilities of patients living on their own were primarily impacted due to further being isolated and secluded in a pandemic.

Social functioning, cognitive functions, and mental health were also significantly affected. A study by Baffert et al. (Baffert et al., 2021) showed that although the physical health of cancer patients in covid-19 remained stable, their mental health kept

declining with time. Gallo et al. (Gallo et al., 2021) also reported similar results: emotional health was worse in pandemic cancer patients than in the control group. In our survey, patients showed signs of depression, stress, emotional tension, and irritability. These results comply with Qian et al. (Qian et al., 2020), Younger et al. (Younger et al., 2020), and Bargon et al. (Bargon et al., 2020) in which more than half of the study population was depressed and anxious. Only 25% of patients were willing to delay their treatment due to Covid-19, and 5% agreed to discontinue any further cancer treatment even if it leads to disease progression. This is because patients were willing to stay with the families accompanying them in their treatment process. The prohibition on family visits, attendants, and participation of their family in their treatment is a non-negotiable factor for cancer patients (Kutikov et al., 2020).

Our study has limitations, including a small sample size, a short study period, and a single-center study. A large, multi-center study will help assess cancer patients' quality of life in more detail.

Conclusion

The quality of life of cancer patients is seriously affected by Covid-19. Thus, necessary measures should be taken to improve such circumstances.

Conflict of interest

The authors declare no conflict of interest.

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