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Original Research Article

Impact of covid-19 on quality of life in COVID recovered patients: A cross-sectional survey

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ABSTRACT

Introduction: COVID-19 pandemic has affected India to a great extent. Till date total of 3.30 crore peoples has been cured and discharged and 44.6 lakh are died due to covid -19 in India. COVID-19 has a long-term systemic effect on lungs, liver, spleen, anxiety and depression and persistence of inflammatory response even after getting cured or COVID negative. Which may affect quality of life. So, there is a need to evaluate quality of life in post COVID patients.

Materials and Methods: A cross-sectional study was conducted on the 100 COVID-19 recovered Participants. Participants were selected on the basis of inclusion and exclusion criterion. Basic assessment of symptom history, medical history and hospitalisation was done by investigator. A quality of life was evaluated using short form-36 questionnaire (SF-36). Statistical analysis was done using Microsoft excel-2019.

Results: A total of 100 participants 61% were male and 39% were female participants. We found that general health component was greatly affected with 68.50%. Following general health emotional well-being (69.68%), social functioning (68.14), pain (64.38%), limitation due to emotional problems (64.19%), energy/fatigue (63.3%), limitation due to physical health (59.61) and physical functioning (48.27%) were affected.

Conclusion: We found that there was mild – moderate affection in quality of life in covid recovered subjects. There was more affection in quality of life in participants with other comorbidities. We also found that there were persistence of breathlessness and fatigue after recovery.

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1. Introduction

It's been two years since the COVID-19 pandemic hit the world. It also had affected India to the great extent. Till date total of 3.30 crore peoples has been cured and discharged and 44.6 lakh are died due to COVID-19 in India.¹ COVID-19 has a long-term systemic effect on lungs, liver, spleen, anxiety and depression and persistence of inflammatory response even after getting cured or COVID negative.^{2,3} It may have great impact on physical, cognitive, social and

mental health status even after having mild presentation of symptoms.⁴ Past coronaviruses outbreaks has shown pulmonary function impairments, reduced quality of life, vocational activities and depression.⁴ A evidences shows, persistent COVID-19 symptoms even after 110 days of discharge from hospital.⁵ Above all factors can affects ones quality of life and activity of daily living. In the huge number of COVID-19 survivors those who are suffering from post-COVID-19 symptoms and had slow recovery need to be evaluated for quality of life. Quality of life component is must to assess as it shows one's perception, comfort and feelings experienced during and after COVID-

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19.⁶ S0, the purpose of this study is to evaluate the impact of COVID-19 on the quality of life post COVID-19 survivors in India

2. Materials and Methods

A cross-sectional study was conducted among 100 post COVID recovered participants in different regions of Gujarat, India. The study was conducted from March, 2021 to November, 2021. Written consent was taken from all participants in the start of the study. Participants were included in the study post three months of getting COVID negative and age above 18 years. Participants with previous history of cardiopulmonary problems were excluded. Basic assessment of participants was taken by investigator like medical history, hospitalization history, course of symptoms and quarantine details. The Quality of life was assessed using Short Form – 36 questionnaire. Data was analyzed using Microsoft Excel 2019. Categorical data were expressed as numbers and percentages and continuous data were reported as means \pm SD and median with interquartile when appropriate.

3. Results

The study was conducted on 100 participants, the mean age was 33 years with standard deviation of \pm 13.04. Amongst them there were 61% males and 39% females. 74% participants were home quarantine, 17% were hospitalized in wards and 9% were admitted in ICU. 25% experienced breathlessness and 74% had experienced fatigue post COVID-19. 10% of participants required oxygen support during hospitalization or quarantine period. 6% were having diabetes mellitus, 2% were having hypothyroidism and 3% were having diabetes mellitus and hypertension both. Out of 8 domain of SF-36 general health was greatly affected followed by emotional well being, social functioning, limitations due to emotional problem, pain, limitations due to physical health, energy/fatigue and physical functioning as shown in graph (Figure 1).

4. Discussion

This study shows the impact of post COVID-19 persistent symptoms on quality of life in covid recovered people. Amongst the eight domains of SF-36 questionnaire it was found that general health component was greatly affected with 68.50%. Following general health emotional well being (69.68%), social functioning (68.14), pain (64.38%), limitation due to emotional problems (64.19%), energy/fatigue (63.3%), limitation due to physical health (59.61) and physical functioning (48.27%) were affected. A study results shows that impairment in physical and emotional health leads to a significant role limitations in physical and emotional well being in COVID-19 survivors.³

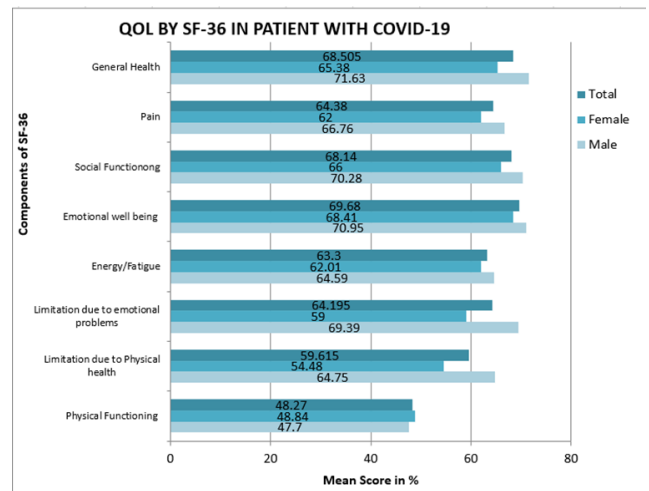


Fig. 1: Quality of life by SF- 36 in patients post covid-19

25 out of 100 experienced breathlessness after getting recovered from COVID-19. A detailed study on pulmonary function found that pulmonary fibrosis post COVID-19 can be the cause of persistent exercise induced breathlessness in COVID recovered subjects.⁷ It was found that 74% participants experienced fatigue after getting recovered from COVID. A study reported significant proportion of patients discharged from hospital had symptoms of breathlessness, fatigue, and had limited exercise capacity.³

Persistence of symptom like breathlessness and fatigue leads to limitation in physical activity which impact the role limitation due to physical health. Physical impairments lead to limitation in the activity of daily living, vocational activity and social activity. Inability to perform physical activity and self grooming will cause significant frustration, anxiety and depression. Carfi A, et al. also reported that 32% of the previously hospitalized patients complained of the persistence of one or two COVID-19-associated symptoms, even two months after being discharged from hospital Of these most commonly reported post-COVID-19 symptoms were the fatigue (53.1%) and dyspnea (43.4%).⁸ Presence of comorbid conditions like diabetes and hypertension leads to more severe form of disease, longer recovery time and more affection in quality of life post recovery.

5. Limitations

There were certain limitations to this study. This study should have been conducted with larger sample size and a long term follow up should have been taken to trace the symptoms recovery period.

6. Conclusion

The study concludes that there was mild to moderate affection in quality of life in COVID-19 recovered

participants. It was also reported some persistent symptoms like breathlessness and fatigue, which can affect the quality of life post recovery from COVID-19. Furthermore systematic assessment and follow up of recovery should be taken and Advices regarding the energy conservation and pulmonary rehabilitation protocol should be implemented as a guidelines for COVID-19.

7. Source of Funding

None.

8. Conflict of Interest

The authors declare no conflict of interest.

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