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Persistent Symptoms after Covid-19 among Patients Discharged From NTPC Badarpur Covid Care Centre

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ABSTRACT

When the COVID-19 pandemic began in 2019, it shook the entire world with its dreaded effects across the globe. While the most common symptoms during Corona virus disease 2019 (COVID-19) have been
acute and most of the patients recovered completely, a large proportion of patients are now experiencing long-term health consequences. However, with only about 5-10% [1] of patients being hospitalised, most studies do not take into account the vast majority of patients with milder course of infection
Majority of the data published focus on health-related events in severely ill and long-term intensive care hospitalization requiring individuals.
These data confirm that the toll of COVID-19 extends well beyond hospitalization. [2]
This study has been conducted to assess the persistence of symptoms and health related quality of life challenges after discharge in patients who had been hospitalised with COVID-19 infection at the NTPC Badarpur COVID Care Center. Persistent post COVID symptoms are not a hallmark of critically ill patients [3], they can occur in patients who had varying degree of illness during acute or asymptomatic infection.
Thus, our study brings forth an extensive eventual analysis of health
consequences in patients who initially presented with mild to moderate symptoms of Severe Acute Respiratory Syndrome Coronavirus Type 2 (SARS-COV-2) infection and were discharged after clinical recovery.

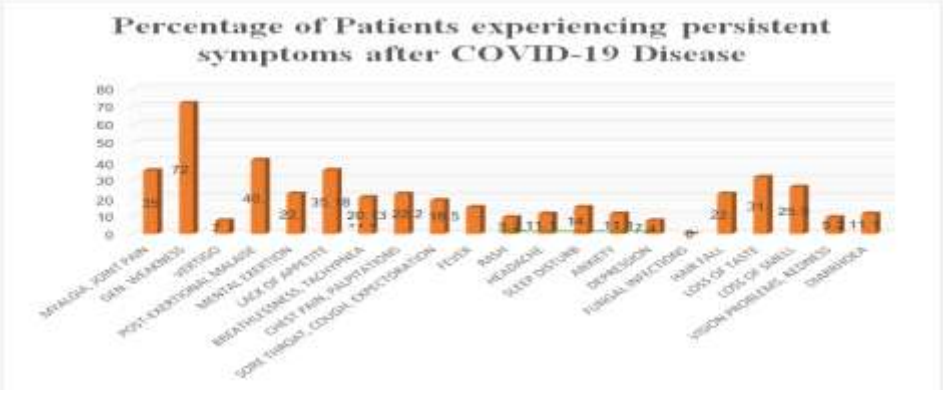
I. MATERIALS AND METHODS

An observational cohort study was conducted among 54 out of 73 patients who were discharged during the period of 16th April to 19th May, 2021 from NTPC Badarpur COVID Care Center. The patients were offered a comprehensive telephone-based questionnaire to collect information about any ongoing cardiopulmonary, musculoskeletal, gastro-intestinal and mental health outcomes among others, after the disease.

A maximum of three attempts were made to contact any patient who was initially not included. A verbal informed consent was acquired from all the patients individually.

In our study, all 54 patients (22 females and 32 males) with confirmed SARS-COV-2 infection were followed up till 16th June 2021 after clinical recovery using a pre-set telephone-based questionnaire in which they were enquired about several symptoms covering the bodily systems involved. The data was then compiled and strategically analysed for common symptoms.

According to the data collected, the most common symptoms were generalised weakness (72.2%), post exertional malaise (40.7%), and lack of appetite (35%). Every patient complained of having at least one of the listed symptoms.
Patients who had died or readmitted were not taken into consideration for this study.



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II. RESULT AND DISCUSSION

From 16th April to 16th June, 2021, 73 patients were potentially eligible to participate in our study regarding persistent symptoms after COVID-19. Of these, 19 patients could not be included due to death, readmission, non-availability or lack ofconsent.

Among the 54 patients taken into consideration, the mean age was 50 years (Range- 29 to 72 years). There were 22 female and 32 male patients included. The patients were assessed from the day after discharge onwards and followed up for symptoms till 16th June,2021. The mean follow-up time period since discharge was of 30 days.

Our research indicates that the health consequences of COVID-19 extend far beyond acute infection, even among those who experience mild illness. [4]

The following Post COVID symptoms were noted in our patients after discharge:

- Neuromuscular –Generalised weakness-72.2%, myalgia/arthralgia- 35%
- Post exertional malaise- 40.7%
- Lack of appetite- 35%
- Pulmonary - Shortness of breath, Tachypnoea– 20.3%
- Sore throat, Cough, Expectoration-18.5%
- CNS– mental exhaustion- 22.2%
- PNS - Loss of smell -25.4% and Loss of taste - 31.4%
- Cardiovascular inflammation–Chest pain, palpitations, tachycardia– 22.2%
- Psychiatric –dysthymia, anxiety, PTSD, sleep disturbances – 33.3%
- Hairfall-22.2%
- Fever-14.8%
- Headache-11.1%
- Diarrhoea- 11.1%
- Vision changes, Redness of Eyes- 9.2%
- Vertigo-7.4%

Apart from the above mentioned symptoms, the patients were also asked about development of any fungal infections. None of the patients reported any such symptom during this study.

We identified **generalized weakness, mood alterations and lack of appetite** as most common, persisting symptoms and summarized the presence of such long-term health consequences in our study.

Fatigue has previously been reported as one of the most common symptoms of Post COVID Syndrome [5]. The full clinical picture of Post COVID Syndrome is complex and far from being understood. However, the viral tropism defined by the entry into cells through a widely expressed ACE2 receptor [6], makes it highly possible that many organs have the potential to undergo not only acute, but also chronic damage, adding to the very diverse clinical picture of Post COVID Syndrome [7].

Cardiovascular symptoms appear to be a major cause of concern among a high percentage of patients. Although respiratory symptoms are highly prevalent during the period of hospitalization, it is noted that in the Post COVID phase, the non-Respiratory burden seems to have increased.

The associated risk factors for these persisting symptoms may include female sex, more than five early symptoms, early dyspnoea, prior psychiatric disorders, and specific biomarkers (e.g. D-dimer, CRP, and lymphocyte count), although more research is required to substantiate such risk factors[8].

Efforts are required to ensure timely follow-up and rehabilitation of patients to minimize the complications occurring after discharge from the hospital.

We thus conclude that the establishment of specialized interdisciplinary post-COVID outpatient clinics is needed to provide individualized care, as well as conduct further research and develop new therapeutic options for patients with post- COVID syndrome [9].

Limitations of the study included lack of information on detailed symptom history before COVID-19 illness. Furthermore, this is a single - centre study with a relatively small group of patients discharged during the given time period. It is also to be noted that patients with community acquired pneumonia may also have similar persistent symptoms, suggesting that these findings are not absolutely specific to COVID-19.

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