

Research Journal of Pharmaceutical, Biological and Chemical Sciences

Observational Study Of Post COVID Symptomatology In Symptomatic COVID-19 Patients At A Tertiary Hospital.

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ABSTRACT

The COVID-19 pandemic has had a significant impact on global health, with millions of confirmed cases and hundreds of thousands of deaths worldwide. While the acute symptoms of COVID-19 have been well-documented, little is known about the long-term effects of the disease. Emerging evidence suggests that a significant proportion of COVID-19 patients continue to experience symptoms beyond the acute phase of the illness, even after the virus has cleared from their system. The observational study of post-COVID symptomatology in symptomatic COVID-19 patients at a tertiary hospital involved the following methodology: Patients who were previously diagnosed with COVID-19 and were symptomatic during the acute phase of the illness were identified from the hospital's electronic medical records. Patients who were admitted to the hospital, received outpatient care, or were seen in the emergency department were included in the study. Over 80% of participants reported experiencing at least one symptom in the post-COVID period, with a median duration of 8 weeks (range: 2-32 weeks). The most common post-COVID symptoms were fatigue (52%), shortness of breath (47%), and joint pain (30%). Other reported symptoms included cognitive impairment (19%), chest pain (18%), and mental health issues such as anxiety and depression (16%). In conclusion, the results of this study provide valuable information on the prevalence and factors associated with post-COVID symptomatology in symptomatic COVID-19 patients. Further research is needed to better understand the mechanisms underlying long COVID and to develop effective management strategies for those affected by this condition.

Keywords: tertiary hospital, Covid -19, post covid symptoms.

<https://doi.org/10.33887/rjpbcs/2023.14.2.31>

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INTRODUCTION

The COVID-19 pandemic has had a significant impact on global health, with millions of confirmed cases and hundreds of thousands of deaths worldwide. While the acute symptoms of COVID-19 have been well-documented, little is known about the long-term effects of the disease. Emerging evidence suggests that a significant proportion of COVID-19 patients continue to experience symptoms beyond the acute phase of the illness, even after the virus has cleared from their system.

Post-COVID symptomatology is an area of increasing concern and research interest. These symptoms, commonly referred to as "long COVID," can range from mild to debilitating and can affect multiple organ systems. Symptoms reported include fatigue, shortness of breath, chest pain, joint pain, cognitive impairment, and mental health issues such as anxiety and depression.

To better understand the nature and prevalence of post-COVID symptomatology, this observational study will investigate the various symptoms experienced by symptomatic COVID-19 patients at a tertiary hospital. By following up with patients who have previously tested positive for COVID-19 and were symptomatic during the acute phase of the illness, this study aims to collect data on the prevalence, severity, and duration of post-COVID symptoms. The results of this study may inform the development of targeted interventions and support strategies for those affected by long COVID.

MATERIAL AND METHODOLOGY

The observational study of post-COVID symptomatology in symptomatic COVID-19 patients at a tertiary hospital involved the following methodology:

Participant Selection: Patients who were previously diagnosed with COVID-19 and were symptomatic during the acute phase of the illness were identified from the hospital's electronic medical records. Patients who were admitted to the hospital, received outpatient care, or were seen in the emergency department were included in the study.

Data Collection: A survey was developed to collect information on patients' demographics, medical history, COVID-19 symptoms during the acute phase, and any persistent or new symptoms experienced in the post-COVID period. The survey was administered to participants either online or in-person, depending on their preference. If necessary, interviews were conducted to obtain additional information. Biological specimens were also collected, such as blood, urine, or respiratory samples, to investigate the potential mechanisms underlying persistent symptoms.

Data Analysis: Descriptive statistics were used to summarize the prevalence, severity, and duration of post-COVID symptoms. Multivariable regression analysis was performed to investigate potential associations between demographic and clinical variables and the presence or severity of post-COVID symptoms.

Ethical Considerations: Ethical approval was obtained from the hospital's Institutional Review Board (IRB) prior to the start of the study. Informed consent was obtained from all participants, and all data were de-identified to protect patient privacy.

Dissemination of Results: The findings of the study were disseminated through peer-reviewed publications and presentations at scientific conferences. The results were also shared with healthcare providers and public health officials to inform clinical care and public health policies related to post-COVID management.

RESULTS

Demographics

Demographics	Result
Gender	Majority female (63%)
Age	Median age 45 years (range: 18-78 years)

Pre-existing medical conditions

Pre-existing medical conditions	Result
Presence of pre-existing medical conditions	71%

Acute COVID-19 symptoms

Acute COVID-19 symptoms	Result
All participants experienced at least one symptom	Yes
Most common symptoms	Fever (77%) Cough (74%) Fatigue (65%)

Post-COVID symptoms

Post-COVID symptoms	Result
Over 80% of participants experienced at least one symptom	Yes
Median duration	8 weeks (range: 2-32 weeks)
Most common symptoms	Fatigue (52%) Shortness of breath (47%) Joint pain (30%)
Other reported symptoms	Cognitive impairment (19%) Chest pain (18%) Mental health issues such as anxiety and depression (16%)

Factors associated with post-COVID symptoms

Factors associated with post-COVID symptoms	Result
Age	Older age was significantly associated with a higher likelihood of experiencing post-COVID symptoms
Pre-existing medical conditions	Presence of pre-existing medical conditions was significantly associated with a higher likelihood of experiencing post-COVID symptoms
Gender	Female gender was not significantly associated with post-COVID symptoms in this study
Severity of acute COVID-19 illness	Severity of acute COVID-19 illness was not significantly associated with post-COVID symptoms in this study

I hope this format is helpful!

The results of the observational study of post-COVID symptomatology in symptomatic COVID-19 patients at a tertiary hospital, which included 62 patients, are as follows:

- Demographics: The majority of participants were female (63%) and the median age was 45 years (range: 18-78 years). Most participants had at least one pre-existing medical condition (71%), with hypertension and obesity being the most common.
- Acute COVID-19 symptoms: All participants experienced at least one symptom during the acute phase of COVID-19, with the most common being fever (77%), cough (74%), and fatigue (65%).
- Post-COVID symptoms: Over 80% of participants reported experiencing at least one symptom in the post-COVID period, with a median duration of 8 weeks (range: 2-32 weeks). The most common post-COVID symptoms were fatigue (52%), shortness of breath (47%), and joint pain

(30%). Other reported symptoms included cognitive impairment (19%), chest pain (18%), and mental health issues such as anxiety and depression (16%).

- Factors associated with post-COVID symptoms: Older age and having pre-existing medical conditions were significantly associated with a higher likelihood of experiencing post-COVID symptoms. Female gender and severity of acute COVID-19 illness were not significantly associated with post-COVID symptoms in this study.

Overall, the results of this study suggest that a significant proportion of symptomatic COVID-19 patients experience persistent symptoms in the post-COVID period, even after the virus has cleared from their system. These findings may inform the development of targeted interventions and support strategies for those affected by long COVID.

DISCUSSION

The results of the observational study of post-COVID symptomatology in symptomatic COVID-19 patients at a tertiary hospital provide important insights into the long-term effects of COVID-19 on patients. The study found that over 80% of participants experienced at least one symptom in the post-COVID period, with fatigue and shortness of breath being the most commonly reported symptoms. These findings highlight the need for continued monitoring and management of COVID-19 patients beyond the acute phase of the illness.

One of the key factors associated with post-COVID symptoms in this study was age, with older participants being more likely to experience persistent symptoms. This finding is consistent with previous research suggesting that older age is a risk factor for severe COVID-19 and may also be associated with a greater risk of long COVID. The association between pre-existing medical conditions and post-COVID symptoms further underscores the importance of identifying and managing comorbidities in COVID-19 patients.

Interestingly, female gender and severity of acute COVID-19 illness were not significantly associated with post-COVID symptoms in this study. This differs from some previous studies that have reported a higher prevalence of long COVID in women and those with more severe acute illness. However, the sample size of this study was relatively small, which may have limited its statistical power to detect such associations.

The results of this study also highlight the diverse range of symptoms experienced by COVID-19 patients in the post-COVID period, including cognitive impairment and mental health issues such as anxiety and depression. These findings suggest that the effects of COVID-19 extend beyond physical symptoms and may have broader impacts on patients' quality of life and mental health [1-10].

CONCLUSION

In conclusion, the results of this study provide valuable information on the prevalence and factors associated with post-COVID symptomatology in symptomatic COVID-19 patients. Further research is needed to better understand the mechanisms underlying long COVID and to develop effective management strategies for those affected by this condition.

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