

DOI: <https://dx.doi.org/10.18203/2319-2003.ijbcp20230386>

Original Research Article

Quality of life in COVID survivors and post COVID manifestations in a tertiary care hospital, Nalanda, Bihar

Shreya Shekhar*, Aman Kishor, Zaki Anwar Zaman

Department of Pharmacology, BMIMS, Pawapuri, Nalanda, Bihar, India

Received: 10 December 2022

Accepted: 30 December 2022

***Correspondence:**

Dr. Shreya Shekhar,

Email: shreyagourav1317@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: COVID-19 pandemic had affected majority of the population across the world. Majority of the cases still complaining of post COVID symptoms. This study was undertaken to study the various pattern of post COVID-19 manifestations in this region in a group of patients attending hospital.

Methods: An observational study was undertaken in a group of 120 patients attending a tertiary care hospital. The patients were subjected for a detailed history and thorough physical examination and the details were entered in to a proforma. The data thus obtained was compiled and analysed.

Results: This study had shown that majority of cases were aged more than 50 years and most of them were females. The common post COVID-19 manifestations included joint pain, continued loss of taste and smell, dyspnoea, Anxiety/ depression and sleep disturbances in this study.

Conclusions: This study had observed continued symptoms from the episode of disease varying from mild to severe manifestations. This study urges for a comprehensive rehabilitation program for all COVID-19 patients.

Keywords: COVID-19, Post COVID manifestation, Dyspnoea, Anxiety, Rehabilitation

INTRODUCTION

Severe acute respiratory syndrome coronavirus 2 (SARS-Cov-2) was responsible for the pandemic which caused chaos of death all over the world dramatically, the virus has dominated the life of every person worldwide.¹ The disease had shown to manifest ranging from a mild illness to severe life-threatening disorder.² Severity is mainly due to hyper-inflammation in the form of cytokine storm in the affected victim.³ The literature available had envisaged that the COVID-19 disease symptoms usually lasts for 11.5 days.⁴ In day today practice, physicians are constantly encountering the patients with post COVID manifestations but negative for RT-PCR. The criteria for improvement envisage that, no fever for more than 3 days, improved respiratory symptoms, pulmonary

imaging with clear chest. Main post COVID manifestations included fever, cough and other symptoms of respiratory distress with other manifestations.⁵ But the reports of post COVID manifestations across the world are lacking to give consistent results. Hence, it was decided to take a study in a tertiary care centre in order to study the post COVID manifestations.

METHODS

An observational study was conducted among 120 patients selected by convenience sampling. This study was conducted for a period of three months from April 2022 to June 2022. All the patients were asked to fill an informed consent form. For the purpose of the study the patients who were RT-PCR positive and admitted into a

dedicated COVID centre were included in to the study. The patients who were RT-PCR positive and under home quarantine or with suspicious admission details were excluded from the study. A total of 120 patients who met the inclusion and exclusion criteria constituted the study sample. A proforma was designed for the purpose of the study including the demographic details, clinical details of RT-PCR positivity, admission details and hospital details. History of comorbidities, oxygen saturation on previous admission and other clinical details were obtained. All the patients were subjected for detailed history and examination of all the systems of the body. Relevant laboratory investigations were sought wherever necessary. The data thus obtained was entered in to the proforma which was compiled and analysed.

RESULTS

This study had shown that, about 42.5% of the patients were aged between 51-60 years. Most of patients with post COVID manifestations were females (53.3%).

Table 1: Demographic characteristics of the study group.

Characteristics	N	%
Age (years)	21-30	1 0.8
	31-40	14 11.6
	41-50	35 29.1
	51-60	51 42.5
	More than 60 years	19 15.8
Sex	Male	56 46.6
	Female	64 53.3

Table 2: Post COVID manifestations of the study group.

Systems	Symptoms/signs	N	%
General Symptoms	Fatigue	53	44.1
	Muscular pains	50	41.6
	Joint pains	74	61.6
Respiratory system	Dyspnoea	68	56.6
	Cough	51	42.5
	Chest pain	67	55.8
Psychological	Anxiety/Depression	63	52.5
	Sleep disturbances	71	59.1
	Loss of taste & smell	49	40.8
	PTSD	65	54.1
Gastrointestinal	Headache	49	40.8
	Diarrhoea	35	29.1
Dermatology	Hairloss	38	31.6
	Skin rash	43	35.8

This study had shown that, fatigue, joint pain and muscular pain were the main general symptoms in this study. The residual dyspnoea, cough and chest pain were found in 56.6%, 42.5% and 55.8% of the patients respectively in this study. The psychological problems encountered were Anxiety/ Depression in 52.5% of the

cases, sleep disturbances in 59.1% of the cases and PTSD in 54.1% of the cases. The loss of taste and smell was still persisting in 40.8% of the cases and continued head ache in 40.8% of the cases. Diarrhoea was the only gastrointestinal problem encountered in this study in 29.1% of the cases. The dermatological complaints mainly seen were hair loss in 31.6% of the cases and Skin rash in 35.8% of the cases.

DISCUSSION

This study was mainly undertaken to study the post COVID manifestations in patients who suffered and survived from COVID-19 during first and second waves in India. This study had shown that, the symptoms after COVID ranged from mild or more severe symptoms including stroke, renal failure and pulmonary fibrosis. Similar symptoms were also reported by many available studies pertaining first wave of COVID-19 and SARS.⁶⁻⁸ This study had demonstrated that many cases with post COVID symptoms were aged more than 50 years. This age group was the main sufferers during first and second wave of COVID-19. A study by Bangladesh have reported that, majority of the patients with post COVID-19 manifestations were aged less than 40 years.⁵ This study had also shown that female patients had higher post COVID manifestations than the males. A study by Mahmud et al reported that, the common post manifestations were respiratory distress, long recovery period and disease severity in their study.⁵ This study had shown that, majority of the post COVID manifestations were mild and ranged to more severe respiratory distress and chest pain.

The episode of COVID-19 mainly relied on three types of treatment strategies. The mild cases without requirement of oxygen were treated in home, moderate cases suffering from difficult breathing and needed oxygen therapy at home and severe cases that had been hospitalized and needed ICU. The symptoms of COVID-19 had a strong link between the age, comorbidity and severity of COVID-19.^{8,9} The reported manifestations were mild reversible symptoms like joint and muscle pain usually relieved by simple medical interventions. The literature available had shown no consensus for the persistence or fresh development of symptoms in the post COVID-19 state. A study had defined this state as “post-acute COVID-19” and “chronic COVID -19” which can extend beyond 3 weeks and 12 weeks of the onset of the symptoms.¹⁰ Another study which has been conducted on patients who met WHO criteria for the discontinuation of the quarantine had shown persistence of at least one symptom.¹¹ But this study is not without limitations. This study had considered the patients attending one centre and included lesser sample size when compared to the size of the population affected with COVID-19. This was a cross sectional study and examined the patients at one point only. Hence, it may be difficult to assess the complete range or emergence of a new symptoms in the patients.

CONCLUSION

This study concludes the post COVID manifestations are common and varied. These manifestations are highly subjective and varies from one individual to another. Hence, long term follow-up of the post COVID-19 patients is the need of the hour. This study also urges the development of a comprehensive rehabilitation program for all COVID-19 recovered cases.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Pneumonia in Wuhan, China. Available at: <https://www.WHO.int/blueprint/10-01-2020-nfr-gcm.pdf?ua>. Accessed on 22 December 2021.
2. Rodriguez-Morales AJ, Cardona-Ospina JA, Gutierrez-Ocampo E, Villamizar-Pena R, Holguin-Rivera Y, Escalera-Antezana JP, et al. Clinical, laboratory and imaging features of COVID-19: a systematic review and meta-analysis. *Travel Med Infect Dis.* 2020;34:101623.
3. Mehta P, McAuley DF, Brown M, Sanchez E, Tattersall RS, Manson JJ. COVID-19: consider cytokine storm syndromes and immunosuppression. *Lancet.* 2020;395(10229):1033-4.
4. Lechien JR, Chiesa-Estomba CM, Place S, Van Laethem Y, Cabaraux P, Mat Q, et al. Clinical and epidemiological characteristics of 1420 European patients with mild-to-moderate coronavirus disease 2019. *J Intern Med.* 2020;288(3):335-44.
5. Mahmud R, Rahman M, Rassel MA, Monayem FB, Sayeed SKJ, Islam MS, Islam MM. Post COVID-19 syndrome among symptomatic COVID-19 patients: A prospective cohort study in a tertiary care center of Bangladesh. *PLoS ONE.* 2005;16(4):e0249644.
6. Moldofsky H, Patcai JJ. Chronic widespread musculoskeletal pain, fatigue, depression and disordered sleep in chronic post-SARS syndrome; a case-controlled study. *J Intern Med.* 2011;11(1):37.
7. Leow MK. Hypocortisolism in survivors of severe acute respiratory syndrome (SARS). *J Intern Med.* 2005;63(2):197-202.
8. Yang J, Zheng Y, Gou X, Pu K, Chen Z, Guo Q, et al. Prevalence of comorbidities and its effects in patients infected with SARS-CoV-2: a systematic review and meta-analysis. *Int J Infect Dis.* 2020;94:91-5.
9. Li X, Xu S, Yu M, Wang K, Tao Y, Zhou Y, et al. Risk factors for severity and mortality in adult COVID-19 inpatients in Wuhan. *J Allergy Clin Immunol.* 2020;146(1):110-8.
10. Greenhalgh T, Knight M, A'Court C, Buxton M, Husain L. Management of post-acute COVID-19 in primary care. *BMJ.* 2020;370:3026.
11. Carfi A, Bernabei R, Landi F, Gemelli A. Against COVID-19 post-acute care study group persistent symptoms in patients after acute COVID-19. *JAMA.* 2020;324(6):603-5.

Cite this article as: Shekhar S, Kishor A, Zaman ZA. Quality of life in COVID survivors and post COVID manifestations in a tertiary care hospital, Nalanda, Bihar. *Int J Basic Clin Pharmacol* 2023;12:199-201.