

Post COVID manifestations and Quality of life in COVID victims: A cross sectional study

Suhail Bin Ahmed¹, Anjum Sultana Khatoon^{2*}¹Associate Professor, Deccan College of Medical Sciences, Hyderabad, Telangana India²Associate Professor, Deccan College of Medical Sciences, Owaisi Hospital and Research Center, Hyderabad, Telangana, India

Received: 23-11-2021 / Revised: 11-12-2021 / Accepted: 15-01-2022

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 pattern of post COVID – 19 manifestations in this region in a group of patients attending hospital. **Material and methods:** An observational study was undertaken in a group of 150 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.

Key words: COVID – 19, Post COVID manifestation, Dyspnoea, Anxiety, rehabilitation

This is an Open Access article that uses a funding model which does not charge readers or their institutions for access and distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>) and the Budapest Open Access Initiative (<http://www.budapestopenaccessinitiative.org/read>), which permit unrestricted use, distribution, and reproduction in any medium, provided original work is properly credited.

Introduction

Severe Acute Respiratory Syndrome Coronavirus 2 (SARS – Cov – 2) was responsible for the pandemic which is spreading all over the world rampantly[1]. The disease had shown to manifest ranging from a mild illness to severe life-threatening disorder[2]. Severity is mainly due to hyperinflammation 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 envisages 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.

Material and methods

An observational study was conducted among 150 patients selected by convenience sampling. This study was conducted for a period of three months from August 2021 to October 2021. The institutional ethics committee clearance was obtained before starting the study. All the patients were asked provide 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 include 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 150 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**Table 1. Demographic characteristics of the study group**

Characteristics		Frequency	Percent
Age group	21 – 30 years	1	0.7
	31 – 40 years	28	18.7
	41 – 50 years	48	32.0
	51 – 60 years	53	35.3
	More than 60 years	20	13.3
Sex	Male	60	40.0
	Female	90	60.0

This study had shown that, about 35.3% of the patients were aged between 51 – 60 years. Most of patients with post COVID manifestations were females.

Table 2. Post COVID manifestations of the study group

Systems	Symptoms/ Signs	Frequency	Percent
General symptoms	Fatigue	53	35.3
	Joint pain	74	49.3
	Muscular pain	50	33.3
Respiratory system	Dyspnoea	74	49.3
	Cough	50	33.3
	Chest pain	73	48.7
Psychological	Anxiety/ Depression	63	42.0
	Sleep disturbances	71	47.3
	PTSD	49	32.7
Loss of taste and smell	Loss of taste and smell	71	47.3

*Correspondence

Dr. Anjum Sultana Khatoon

Associate Professor, Deccan College of Medical Sciences, Owaisi Hospital and Research Center, Hyderabad, Telangana, India

E-mail: dranjumsultanakhatoon@gmail.com

	Headache	53	35.3
Gastro intestinal system	Diarrhoea	35	23.3
Dermatological	Hair loss	38	25.3
	Skin rash	59	39.3

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 49.3%, 33.3% and 48.7% of the patients respectively in this study. The psychological problems encountered were Anxiety/ Depression in 42% of the cases, sleep disturbances in 47.3% of the cases and PTSD in 32.7% of the cases. The loss of taste and smell was still persisting in 47.3% of the cases and continued head ache in 35.3% of the cases. Diarrhoea was the only gastrointestinal problem encountered in this study in 23.3% of the cases. The dermatological complaints mainly seen were hair loss in 25.3% of the cases and Skin rash in 39.3% 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[6,7,8].

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.

Conflict of Interest: Nil Source of support: Nil

References

1. World Health Organization. GCM teleconference–Note for the Records. 10 January 2020. Subject: Pneumonia in Wuhan, China. Available from: <https://www.WHO.int/blueprint/10-01-2020-nfr-gcm.pdf?ua=>. Accessed 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 Sep; 288(3):335–344.
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 case center of Bangladesh, *PLoS ONE:* 16(4): e0249644.
6. Moldofsky, H. and J.J.B.n. Patcai, Chronic widespread musculoskeletal pain, fatigue, depression and disordered sleep in chronic post-SARS syndrome; a case-controlled study. 2011. 11(1): p. 37.
7. Leow, M.K.S., et al., Hypocortisolism in survivors of severe acute respiratory syndrome (SARS). 2005. 63(2): p. 197-202.
8. Yang J, Zheng Y, Gou X, Pu K, Chen Z, Guo Q, Ji R, Wang H, Wang Y, Zhou Y. Prevalence of comorbidities and its effects in patients infected with SARS-CoV-2: a systematic review and meta-analysis. *Int J Infect Dis.* 2020 May; 94:91-95.
9. Li X, Xu S, Yu M, Wang K, Tao Y, Zhou Y, Shi J, Zhou M, Wu B, Yang Z, Zhang C, Yue J, Zhang Z, Renz H, Liu X, Xie J, Xie M, Zhao J. Risk factors for severity and mortality in adult COVID-19 inpatients in Wuhan. *J Allergy Clin Immunol.* 2020 Jul;146(1):110-118.
10. Greenhalgh T, Knight M, A’Court C, Buxton M, Husain L. Management of post-acute covid-19 in primary care. *BMJ.* 2020 Aug 11; 370:m3026.
11. Carfi A, Bernabei R, Landi F; Gemelli Against COVID-19 Post-Acute Care Study Group. Persistent Symptoms in Patients After Acute COVID-19. *JAMA.* 2020 Aug 11;324(6):603-605.