



LONG COVID SYMPTOMATOLOGY: A CASE SERIES FROM ARUNACHAL PRADESH

Healthcare

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ABSTRACT

Many Covid-19 survivors continue to struggle with varying symptoms even four weeks after their acute illness which is commonly known as "Long Covid" and such individuals are known as "Long haulers". It is thought to occur in approximately 10% of Covid-19 survivors. Among the most frequently reported Long-Covid symptoms are fatigue, headache, attention deficit, hair loss, dyspnea, myalgia, and arthralgia which is proposed to be due to the persistence of inflammation. This case series briefly describes the clinical profile of Long-Haulers from a tertiary care hospital in Arunachal Pradesh (northeastern state of India).

KEYWORDS

Long Covid, Long Hauler, Post Covid Syndrome, Symptoms, Clinical Profile

INTRODUCTION:

Many Covid-19 survivors continue to struggle with varying symptoms even four weeks after their acute illness which is commonly known as "Long Covid". Such individuals are known as "Long haulers."¹ Long Covid is thought to occur in approximately 10% of people infected,² so there are likely more than 5 million people affected globally. The NICE guideline proposes the following classification: acute COVID-19 (symptoms for up to 4 weeks), ongoing symptomatic COVID (symptoms from 4 to 12 weeks), and post-COVID (symptoms developed during or after an infection and continuing for more than 12 weeks) infection and continuing for more than 12 weeks).³ In a subsequent analysis of the NICE guideline, Sivan and Taylor proposed the unified definition of long COVID as - signs and symptoms that continue for more than four weeks and can be attributed to COVID-19 infection.⁴ Among the most frequently reported Long-Covid symptoms are fatigue, headache, attention deficit, hair loss, dyspnea, myalgia, and arthralgia and most of these patients have comorbidities such as cardiovascular diseases, diabetes mellitus, obesity, cancer, and chronic kidney diseases. Here we present a case series of 18 Covid-19 survivors presenting with varying Long-Covid symptoms from a tertiary care hospital in Arunachal Pradesh, India.

METHODS:

Cases were collected between 2020-2022 among Covid-19 survivors who came for follow up at TRIHMS OPD (a tertiary care hospital in Arunachal Pradesh - India) with various symptoms persistent with Long-Covid. Their symptomatology was noted and laboratory and radiological studies done according to the cases.

Inclusion Criteria:

- 1) Symptoms persisting for >4 weeks after confirmed acute Covid-19 infection (by RTPCR)
- 2) Age >18 years
- 3) RTPCR negative for Covid-19 after their acute illness and
- 4) Symptoms not attributable to any other concurrent illness

Case Presentation:

A) GENERAL CHARACTERISTICS OF THE PATIENTS: (Table 1)

Total 18 cases were collected who met the inclusion criterias out of which 15 were female (88%) and 3 were male (12%) with male:female ratio of 1:7. The median age was 36 years and the median age of Long-Covid time was 135 days. Out of the 18 patients, 7 patients (38%) were admitted at Dedicated Covid Hospital during their acute illness with moderate-severe Covid-19. During the acute illness constitutional symptoms, respiratory symptoms and musculoskeletal symptoms were the most common presenting complaints.

Table 1: General characteristics of the patients

Variable	Long-covid patients (n=17)
Male	3 (12%)
Female	15 (88%)
Age (median)	36 years (24-54yrs)
Long-Covid time (median)	135 days (80-300days)
Admitted during acute illness	7 (38%)

Co-morbidities

7 (38%)

B) LONG-COVID SYMPTOMS:

Most of the patients had overlapping of various symptoms and it was observed that almost 2/3rd of them had overlapping of 2 or more symptoms.

The most common were of respiratory symptoms with generalized fatigue in 16 patients (88%) and non-productive cough in 11 patients (61%). Fatigue was experienced even with mild exertion and was present even during their acute illness in most of the patients. Cough was non-productive in most of them without diurnal variation. All the patients who required admission during their acute illness presented mainly with respiratory symptoms as Long-Covid.

Musculoskeletal symptoms were also common with myalgia in 11 patients (61%) and arthralgia in 4 patients (22%). There was no tenderness of muscles and joints and no diurnal variation, but was exacerbated on physical activities.

Neurocognitive symptoms were seen in 5 patients (27%) who complained of brain fog, difficulty in concentration and confusion. Most of these patients were of younger age group and were more common in males (4 of them were male patients).

3 patients (16%) presented with psychological symptoms mainly anxiety and insomnia. These patients also complained of palpitation on and off which exacerbated their anxiety.

4 patients (22%) complained of unusually increased hair fall which was never experienced by them before they had covid-19. It was noticed while washing or combing their hair. All of them were female and there was no alopecia seen on examination, except for thinning of hair.

7 patients (38%) complained of anosmia which was present even during their acute illness. It was not associated with any nasal stuffiness or any discharge.

Table 2: Long-Covid symptoms

Symptoms	Long-Covid patients
Respiratory symptoms	
1. Fatigue	16 (88%)
2. Cough	11 (61%)
Musculoskeletal symptoms	
1. Myalgia	11 (61%)
2. Arthralgia	4 (22%)
Neurocognitive symptoms	5 (27%)
Psychological symptoms	3 (16%)
Anosmia	7 (38%)
Hair fall	4 (22%)

C) LABORATORY PROFILE:

5 patients (27%) who had mainly respiratory symptoms had mild elevation in ESR and CRP. Other biochemical and radiological studies

were normal for the patients.

D)TREATMENT:

All of them were treated symptomatically, and short course of low dose steroids were given to those having respiratory and musculoskeletal symptoms. Respiratory and musculoskeletal symptoms were alleviated in most of them.

DISCUSSION:

Long-Covid manifests as a plethora of symptoms affecting various system and such individuals are known as Long Haulers.¹ Long COVID may be driven by long-term tissue damage (e.g. lung, brain, and heart) and pathological inflammation (e.g. from viral persistence, immune dysregulation, and autoimmunity).⁶ The associated risk factors may include female sex, more than five early symptoms, early dyspnea, prior psychiatric disorders, and specific biomarkers.⁶ Similar post-viral syndrome was observed with prior human coronavirus diseases like Middle East respiratory syndrome (MERS) and severe acute respiratory syndrome (SARS) for up to four years.⁷

In this case series we observed that females were more affected and prone to have Long-Covid, and similar findings were found by Francesca Bai et al.⁸ Hormones may play a role in perpetuating the hyper inflammatory status of the acute phase even after recovery in females.⁹ It was also observed that development of Long-Covid symptoms were not associated with initial severity of the disease as majority of them didn't require hospital admission during their acute illness and is consistent with previous studies.⁸ The presence of comorbidities also doesn't seem to be a risk factor for Long-Covid as majority of our patients were without any comorbidity.

Both physical and psychological symptoms were manifested in our patients. The most common system involved were of respiratory system with persistent generalized weakness and cough which was alleviated by low dose steroid. It was also observed that respiratory symptoms were seen mainly in those patients who required admission during their acute illness.

CONCLUSION:

Long-Covid is a new chronic disabling condition brought about by waves of Covid-19 pandemic affecting Covid-19 survivors irrespective of their initial disease severity and age. It is estimated that 5 million people are facing long-COVID globally.¹⁰ As the condition is new much is to be researched into and a consensus is required especially regarding the management of Long-Covid. This case series briefly describes the clinical profile of Long-Covid in this region (Arunachal Pradesh- northeastern state of India) and emphasizes the physicians to consider Long-Covid in their differential diagnosis while dealing with Covid-19 survivors presenting with typical symptomatology. Many survivors may be going through Long-Covid without being aware of this new syndrome.

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