

Original Research

Assessment of clinical profile of patients with COVID-19 infection

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ABSTRACT:

Background: The clinical symptoms are varied and manifest as fever, nasal congestion, sore throat, sneezing, loss of taste and smell. The present study was conducted to assess clinical profile of patients with COVID-19. **Materials & Methods:** 52 patients with COVID-19 infection of both genders were included. Symptomatic patients were categorized to have mild, moderate or severe disease. Patients with uncomplicated upper respiratory tract infection or non-specific symptoms such as fever, cough, sore throat, nasal congestion, malaise and headache were classified to have mild disease. **Results:** Out of 52 patients, males were 32 and females were 20. Common clinical features were fever seen in 52, cough in 45, sore throat in 30, headache in 27, breathlessness in 41, taste/smell loss in 23 and diarrhea in 15. The difference was significant ($P < 0.05$). Common comorbidities seen were anxiety in 11, hypertension in 27, diabetes mellitus in 38, obstructive sleep apnoea in 19 and hypothyroidism in 24. The difference was significant ($P < 0.05$). **Conclusion:** Common clinical features were fever, cough, sore throat, headache, breathlessness, taste/smell loss and diarrhea.

Key words: Cough, headache, diarrhea

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INTRODUCTION

World Health Organization (WHO) reported more than 43 million confirmed cases of SARS-CoV-2 infection and more than one million deaths globally, with India contributing to >600,000 confirmed patients and >100,000 deaths until October 29, 2020.¹ The first patient in India was reported from Kerala and gradually COVID-19 has spread to entire country. Human-to-human transmission via droplets as well as through contact with fomites seems to be the critical route of the virus spread.² Since 80% of the infected population are either asymptomatic or have mild disease, people have been going to their workplaces and even traveling internationally. Nevertheless, even though the virus is causing mild disease in many, the course of illness may be severe, leading to hospitalization and even death.³

The clinical symptoms are varied and manifest as fever, nasal congestion, sore throat, sneezing, loss of taste and smell.⁴ People with co-morbidities, including diabetes and hypertension, who are treated with the drugs such as thiazolidinediones, angiotensin-converting enzyme (ACE) inhibitors, and

angiotensin-II receptor blockers (ARBs) have an increased expression of angiotensin-converting enzyme-2 (ACE-2).⁵ Patients with SARS-CoV-2 infection may have mild-to-asymptomatic illness, but some rapidly progress to acute respiratory distress syndrome (ARDS), multi-organ dysfunction syndrome (MODS) and death.⁶ The present study was conducted to assess clinical profile of patients with COVID-19.

MATERIALS & METHODS

The present study comprised of 52 patients with COVID-19 infection of both genders. The consent was obtained from all enrolled patients.

Data such as name, age, gender etc. was recorded. All adult patients tested positive on real-time reverse transcriptase polymerase chain reaction (RT-PCR) assay for SARS-CoV-2 on a throat and/or a nasopharyngeal swab. Symptomatic patients were categorized to have mild, moderate or severe disease. Patients with uncomplicated upper respiratory tract infection or non-specific symptoms such as fever, cough, sore throat, nasal congestion, malaise and

headache were classified to have mild disease. Patients with radiologically proven pneumonia but without the signs of severe pneumonia were categorized as moderate disease. Severe pneumonia included a patient with fever, plus one of the

following: respiratory rate >30 breaths/min, severe respiratory distress and SpO₂. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 52		
Gender	Males	Females
Number	32	20

Table I shows that out of 52 patients, males were 32 and females were 20.

Table II Clinical profile of patients

Clinical profile	Number	P value
Fever	52	0.05
Cough	45	
Sore throat	30	
Headache	27	
Breathlessness	41	
Taste/smell loss	23	
Diarrhea	15	

Table II, graph I shows that common clinical features were fever seen in 52, cough in 45, sore throat in 30, headache in 27, breathlessness in 41, taste/smell loss in 23 and diarrhea in 15. The difference was significant (P < 0.05).

Graph I Clinical profile of patients

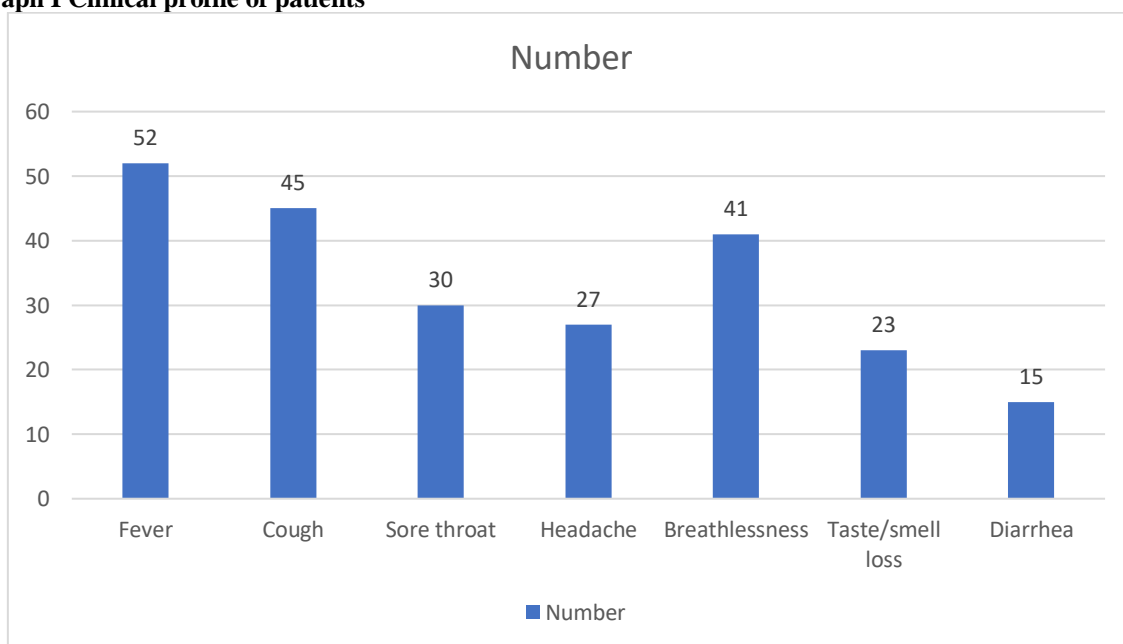
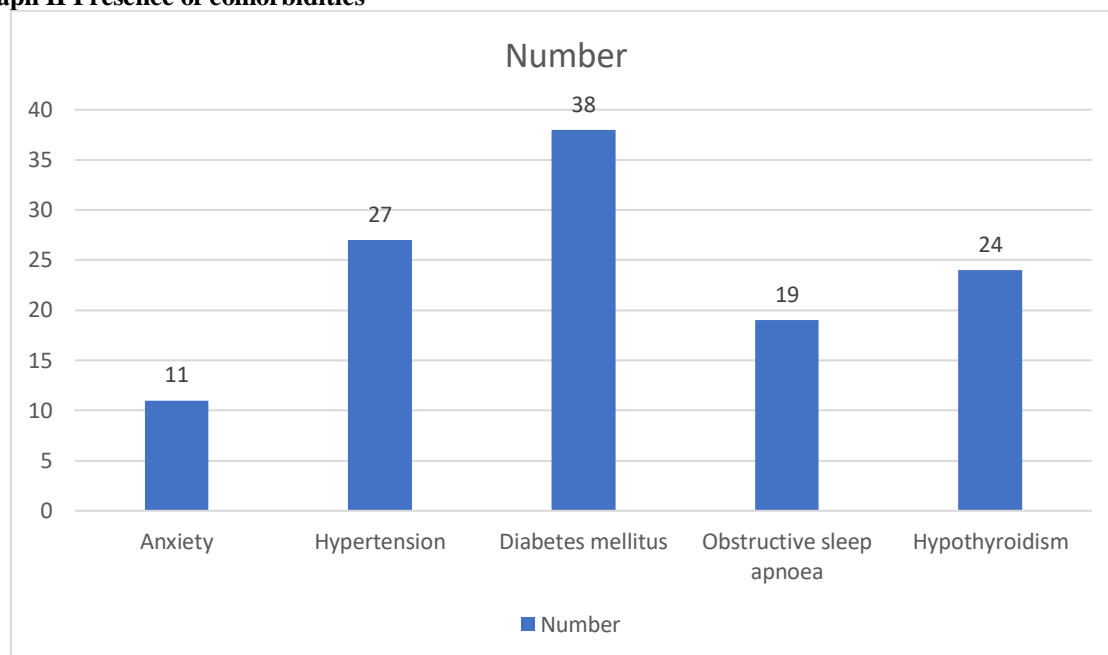


Table III Presence of comorbidities

Comorbidities	Number	P value
Anxiety	11	0.02
Hypertension	27	
Diabetes mellitus	38	
Obstructive sleep apnoea	19	
Hypothyroidism	24	

Table III, graph II shows that common comorbidities seen were anxiety in 11, hypertension in 27, diabetes mellitus in 38, obstructive sleep apnoea in 19 and hypothyroidism in 24. The difference was significant (P < 0.05).

Graph II Presence of comorbidities



DISCUSSION

The 2019 novel coronavirus (2019-nCoV) or COVID-19 as it is now called, is rapidly spreading worldwide from its place of origin in Wuhan City of Hubei Province of China.^{7,8} Up to March 21st 2020 around 234,076 confirmed cases of coronavirus disease 2019 (COVID-19) and 9840 confirmed deaths have been reported from 176 countries, regions and territories.^{9,10} The present study was conducted to assess clinical profile of patients with COVID-19.

We found that out of 52 patients, males were 32 and females were 20. Soni et al¹¹ in their study clinical characteristics and outcomes of consecutive adult patients were studied. The diagnosis of SARS-CoV-2 infection was confirmed by real-time reverse transcriptase polymerase chain reaction (RT-PCR) on throat and/or nasopharyngeal swabs. All patients were managed according to the institute’s consensus protocol and in accordance with Indian Council of Medical Research guidelines. During the study period, 114 patients with SARS-CoV-2 infection were admitted. The history of contact with COVID-19-affected individuals was available in 75 (65.8%) patients. The median age of the patients was 33.5 yr (13-79 yr), and there were 66 (58%) males. Of the total enrolled patients, 48 (42%) were symptomatic. The common presenting complaints were fever (37, 77%), cough (26, 54%) and shortness of breath (10, 20.8%). Nineteen (17%) patients had hypoxia (SpO2 < 94). Thirty-four (29.8%) patients had an accompanying comorbid illness. Age more than 60 years and presence of diabetes and hypertension were significantly associated with severe COVID-19 disease. Admission to the intensive care unit (ICU) was needed in 18 patients (52%), with three (2.6%)

patients requiring assisted ventilation. Mortality of 2.6 per cent (3 patients) was observed.

We observed that common clinical features were fever seen in 52, cough in 45, sore throat in 30, headache in 27, breathlessness in 41, taste/smell loss in 23 and diarrhea in 15. Gupta et al¹² reported the initial experience with epidemiologic and clinical features, as well as with the management of COVID-19 patients. The mean age of the population was 40.3 years with a male preponderance. Thirteen (62%) patients had recent travel history outside India in the previous 30 days, two thirds of whom had travelled to Italy. The most common symptoms were fever and cough (42.9%) followed by sore throat, headache and breathlessness. Vital and laboratory parameters were preserved in all patients and none of them required ventilatory support. Among the first 21 patients diagnosed with COVID-19 infection in India, the typical clinical presentation consisted in a mild upper respiratory tract infection predominantly affecting the young male population. One patient required supplemental oxygen. All patients recovered with no residual symptoms.

We found that common comorbidities seen were anxiety in 11, hypertension in 27, diabetes mellitus in 38, obstructive sleep apnoea in 19 and hypothyroidism in 24. Bhandari S et al¹³ found that the clinical features of COVID-19 are very diverse, ranging from asymptomatic state to acute respiratory distress syndrome and multi organ dysfunction. The common clinical features include fever, cough, sore throat, headache, fatigue, headache, myalgia and breathlessness. Emergency workers carry a huge responsibility in this pandemic. We have to provide early triage and management of patients with

suspected or confirmed infection in which inflammatory markers play an important role.

CONCLUSION

Authors found that common clinical features were fever, cough, sore throat, headache, breathlessness, taste/smell loss and diarrhea.

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