

“A Study of the Clinico-Epidemiological Profile of Covid-19 Patients Admitted at a Tertiary Care Hospital in India”

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Abstract:

Introduction- COVID-19, or more popularly known as Novel Corona Virus, is associated with the respiratory disorder in humans which has been declared as a global epidemic and pandemic in the first quarter of the year 2020 by the World Health Organization.

Aim: To Study the Clinico-epidemiological Profile of COVID-19 Patients Admitted in a Tertiary Care Hospital in Kanpur, UP, India.

Material and Methods: It is a retrospective study that investigated 170 Real Time-Polymerase Chain Reaction (RT-PCR) confirmed COVID-19 patients from June 2020 to August 2020.

Results: Out of 170 laboratories confirmed adult COVID-19 patients Men were 116 (68.23%) and women were 54 (31.76%). There were 48 (28.23%) symptomatic and 122 (71.76%) asymptomatic patients. The mean CT value in symptomatic patient was 26.05 and in asymptomatic patient was 25.30. Maximum no. of patients belong to the age group of 61-70 yrs. Most common symptom was fever followed by cough and breathlessness.

Conclusion: Among the hospitalized patients in the tertiary care hospital, fever was the most common symptom followed by cough and breathlessness and the maximum no. positive cases were from elderly people who may be attributed to their weak immunity or any co morbidity.

Key Words: RT-PCR, Covid 19, CT value..

Introduction

Corona viruses are enveloped RNA viruses, ranging from 60 nm to 140 nm in diameter with a crown-like appearance, found in mammals particularly in humans and birds. Corona viruses are known to have mutated and recombined behaviour causing respiratory, enteric, hepatic, and neurologic diseases. Corona virus has a total of seven strains which include HKU1, NL63, 229E and OC43, SARS-CoV, MERS-CoV and SARS-CoV-19 (COVID-19 being the latest), out of which first four had a mild impact on infested human with mild respiratory disease [1,2], The clinical features of COVID-19 include fever (not in all), breathing difficulty, cough, lethargy, headache, myalgia, sore throat, and

Conjunctivitis (also in some cases). Hence, distinguishing this disease from other respiratory infections is relentlessly challenging [3,4]. The SARS-CoV-2 virus has profoundly impacted the economy, environment, health, and social structure of the globalized world [5,6]. Around 14% require hospitalization and supplemental oxygen, while 5% require intensive care unit admission [5]. Literature review shows that studies from India have a Case Fatality Rate (CFR) ranging from 2.36% to 29.4% [7, 8, and 9].

The aim of the study was to evaluate the clinic-epidemiological characteristics of COVID-19 disease at a tertiary care centre.

Material and Methods

This study was conducted in Rama Medical College, Hospital & Research Centre, Kanpur. It is a retrospective study conducted from June 2020 to August 2020 and a suitable statistical was carried out accordingly.

Inclusion criteria: Lab confirmed Covid-19 patients either symptomatic or asymptomatic were included in the study.

Exclusion criteria: Pediatric age group was excluded in this study.

Data collection: The data was collected from Microbiology department as well as Medical Record Department of the hospital. Institutional ethical clearances were obtained.

Results

A total of 170 laboratory confirmed adult COVID-19 patient's data were included. The maximum number of patients belonged to the age group of 61-70 years. Men were 114 (67.05%) and women were 56 (32.94%) M: F ratio being 2:1.

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Table 1: Age and gender wise distribution

Age	Male	Female	Total
21-30	15	2	17
31-40	18	4	22
41-50	15	7	22
51-60	16	16	32
61-70	28	15	43
71-80	17	9	26
81-90	5	3	8
Total	114	56	170

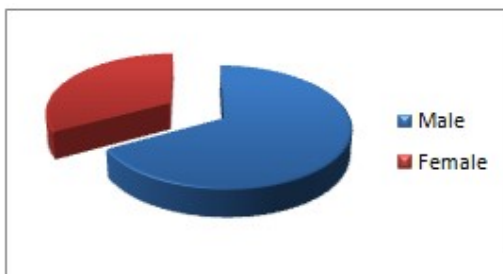


Figure 1: Gender wise distribution of patients

There were 48 (28.23%) symptomatic and 122 (71.76%) asymptomatic patients. Mortality was higher in symptomatic patients. On presentation, the most common symptom was fever (50%), followed by cough (41.6%) and breathlessness (43.75%). The other symptoms were sore throat (25%), diarrhoea (16.66%), vomiting (27.08%), nausea (10.41%), bodyache (37.5%), abdominal pain (20.83%) and headache (31.25%)

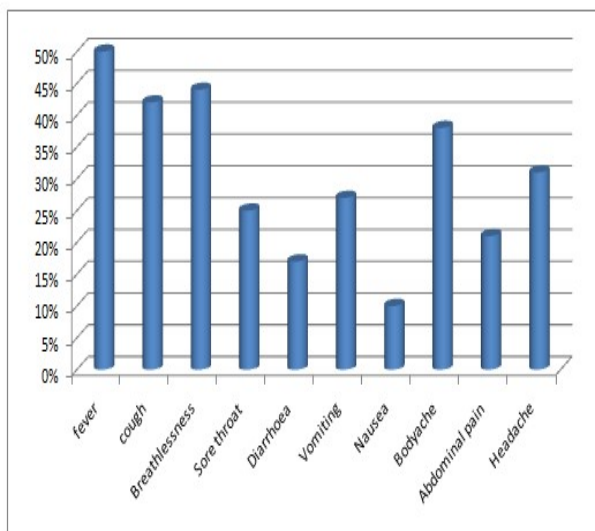


Figure 2: Symptom wise distribution of the patients
Of 48 symptomatic patients 28 (53.88%) were male and 20 (41.66%) were female. The mean CT value in

symptomatic patient was 26.05 and in asymptomatic patient were 25.30.

Discussion

This study presents the epidemiologic characteristic of Covid-19 admitted patients.

Serial no.	Study	Year	Result
1.	Borghesi A.et.al [9]	2020	Males were predominant (67.05%)
2.	Present study	2021	Males were predominant (69.9%)

In the present study males were predominant (69.9%). The results were in accordance with Borghesi A. et al.

Serial no.	Study	Year	Result
1	Gupta N.et al [10]	2020	Fever is the most common manifestation
2	Sudipta Dhar et al[11]	2020	Fever is the most common manifestation
3	Tambe et al[8]	2020	Most common symptom was breathlessness
4	Present study	2021	Fever is the most common manifestation

In the present study most common symptom was fever. The results were in accordance with Gupta N.et. al. and Sudipta Dhar et. al. And was in contrast with Tambe et al.

Conclusion

Among the hospitalized patients in the tertiary care hospital, fever was the most common symptom followed by cough and breathlessness and the maximum no. positive cases were from elderly people who may be attributed to their weak immunity or any co morbidity.

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