



## **Clinical Characteristics of Asymptomatic Covid-19 (Sars-Cov-2) Patients Admitted at A Tertiary Care Centre**

Dr Siddhesh Suhas Bharadi <sup>\*1</sup>, Dr Sushama Dugad <sup>2</sup>, Dr Mayur Devraj <sup>3</sup>,  
Dr Ravindra Shinde <sup>4</sup>, Dr Chaitanya Kappagantu <sup>5</sup>, Dr Nikhil Raj<sup>6</sup>

1. MBBS MD, Department of Respiratory Medicine, Dr vanantrao pawar Medical College and Hospital.
2. MBBS MD, Professor & HOD, Department of Respiratory Medicine, Dr Vasantrya Pawar Medical College.
3. MBBS MD, Professor, Department of Respiratory Medicine, Dr Vasantrya Pawar Medical College.
4. DNB, Associate Professor, Department of Respiratory Respiratory Medicine, Dr Vasantrya Pawar Medical college.
5. Department of Respiratory Medicine, Dr Vasantrya Pawar Medical College.
6. MD, Department of Respiratory Medicine, Dr Vasantrya Pawar Medical College.

**\*Correspondence to:** Dr Siddhesh Suhas Bharadi, MBBS MD, Department of Respiratory Medicine, Dr vanantrao pawar Medical College and Hospital.

### **Copyright**

© 2023 **Dr Siddhesh Suhas Bharadi**. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Received: 07 July 2023

Published: 01 August 2023

### ***Abstract***

***Aim:*** To prospectively study 160 patients of asymptomatic covid 19 infection for their clinical course and outcome.

***Methods:*** Demographic and clinical characteristics from the 160 asymptomatic SARS-CoV-2 positive patients were obtained over a period of 3 months.

***Results:*** Overall, mean age of the patients was 35.66 years. Hypertension was the commonest comorbidity. However, 142 patients (88.75%) were found to be without any comorbidities. 17 patients (10.6%) developed symptoms on 3rd day whereas 7.5%, 6.8%, 3.7% and 1.2% became symptomatic on 2nd, 4th, 1st and 5th day respectively.

***Conclusion:*** Cough was the most common symptom seen followed by fever, sore throat, generalized weakness and dyspnea. Asymptomatic patients were mostly without any comorbidities and hence remained asymptomatic and overall outcome was better.

***Keywords:*** SARS CoV-2, Asymptomatic covid-19, Comorbidity

### **Introduction**

A new respiratory tract infecting agent known as the coronavirus was discovered in Wuhan, China, in December 2019. It was later given the name Covid-19. 2019-nCoV is a kind of beta-coronavirus linked to human severe acute respiratory syndrome (SARS) and Middle East respiratory illness, according to full-genome sequencing and phylogenetic research (MERS). [1] The household was found to be the highest-risk exposure setting for COVID-19 transmission in a few preliminary contact-tracing studies. [2-4] Because COVID-19 is highly transmissible before and soon after symptom onset, locating and isolating symptomatic patients may not be enough to stop transmission, and more broad-based strategies, such as social distance, may be required. [5]

## **Materials and Methods**

### **Study design**

This was a three-month prospective cross-sectional study conducted in the department of pulmonary medicine at a tertiary care teaching hospital (May 2020 to July 2020).

### **Study population**

Following the inclusion and exclusion criteria, 160 consecutive patients of SARS COV 2 POSITIVE of both genders who visited the department of respiratory medicine during the study period were chosen.

### **Inclusion criteria**

1. ASYMPTOMATIC patients tested positive for COVID-19 VIRUS by RT-PCR diagnostic method admitted at tertiary health care centre.
2. Patients giving informed consent.

### **Exclusion Criteria**

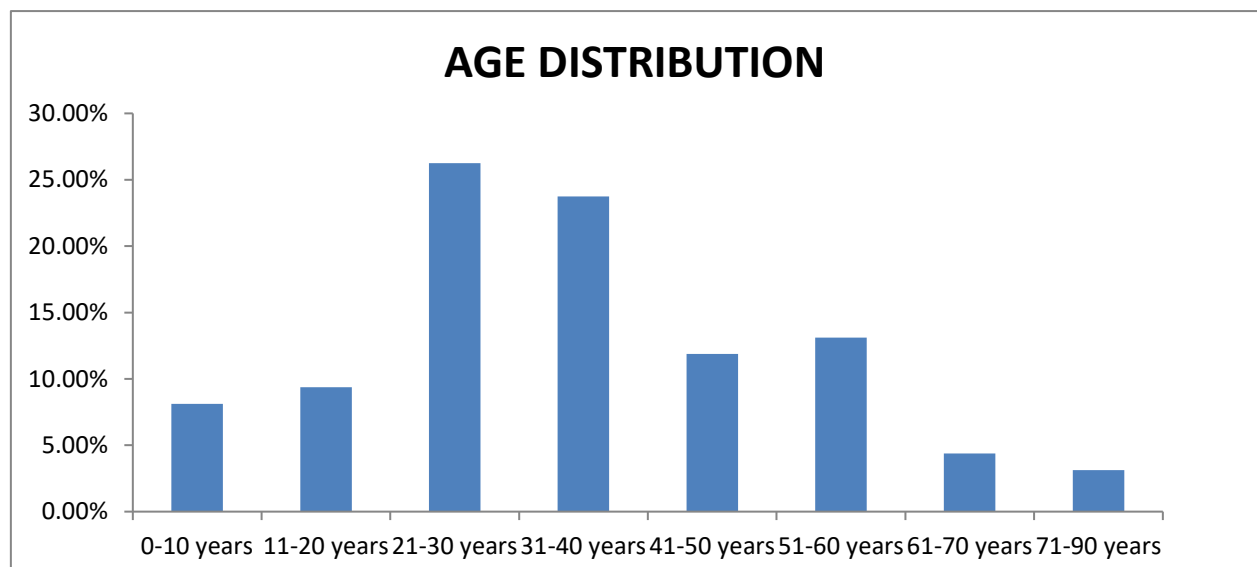
1. ALL SYMPTOMATIC COVID-19 PATIENTS.
2. If there is inability to obtain informed consent from patients.

### **Study Protocol**

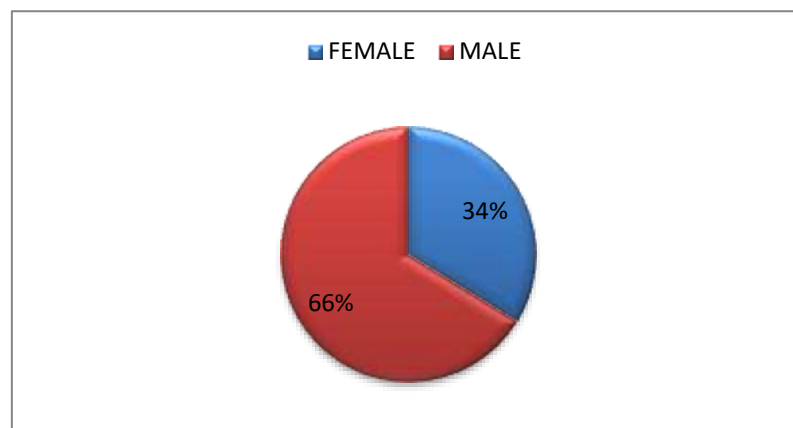
A thorough demographic and clinical history was collected, including age, sex, clinical symptoms at the time of admission, and any comorbidities (DM/HTN/TB/BA). All study participants were asked to give their informed consent over the phone, and those who agreed were recruited in the study. The trial participants had their blood drawn for complete hemograms, SGPT, creatinine, blood glucose, and chest X-rays. Symptoms were monitored for the next 7 days to see if they developed any new symptoms or if they remained asymptomatic till discharge.

## Results

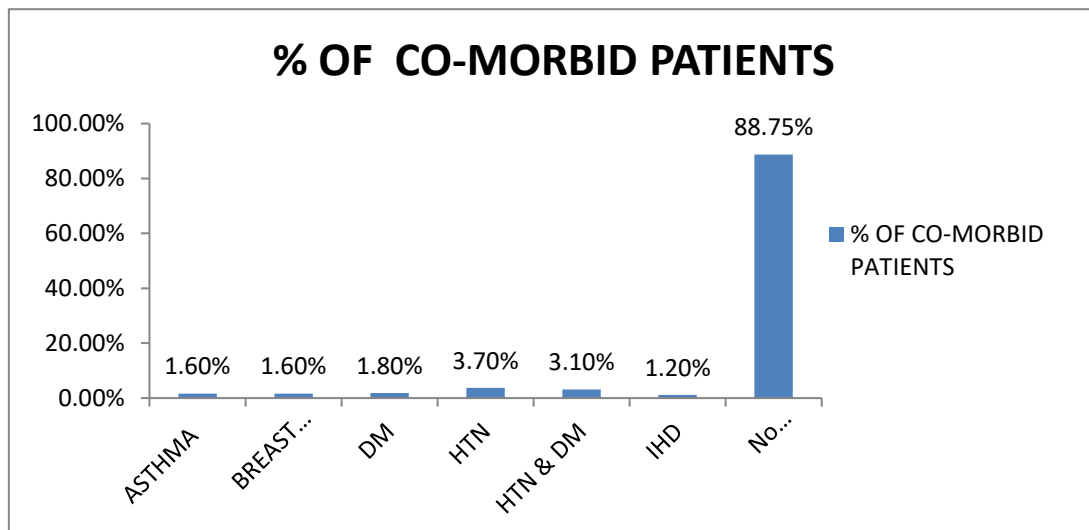
160 individuals of both sexes, with COVID-19 RTPCR POSITIVE reports as per our study criteria, were enrolled in this study over a three-month period. The patients' average age was 35.66 years (mean). There were 106 men (66.25 percent) and 54 women (33.75 percent) among the 160 patients. HYPERTENSION was the most frequent comorbidity in the study population, with 3.7 percent of patients having it. However, 142 of the patients (88.75%) were found to be free of co-morbidities.



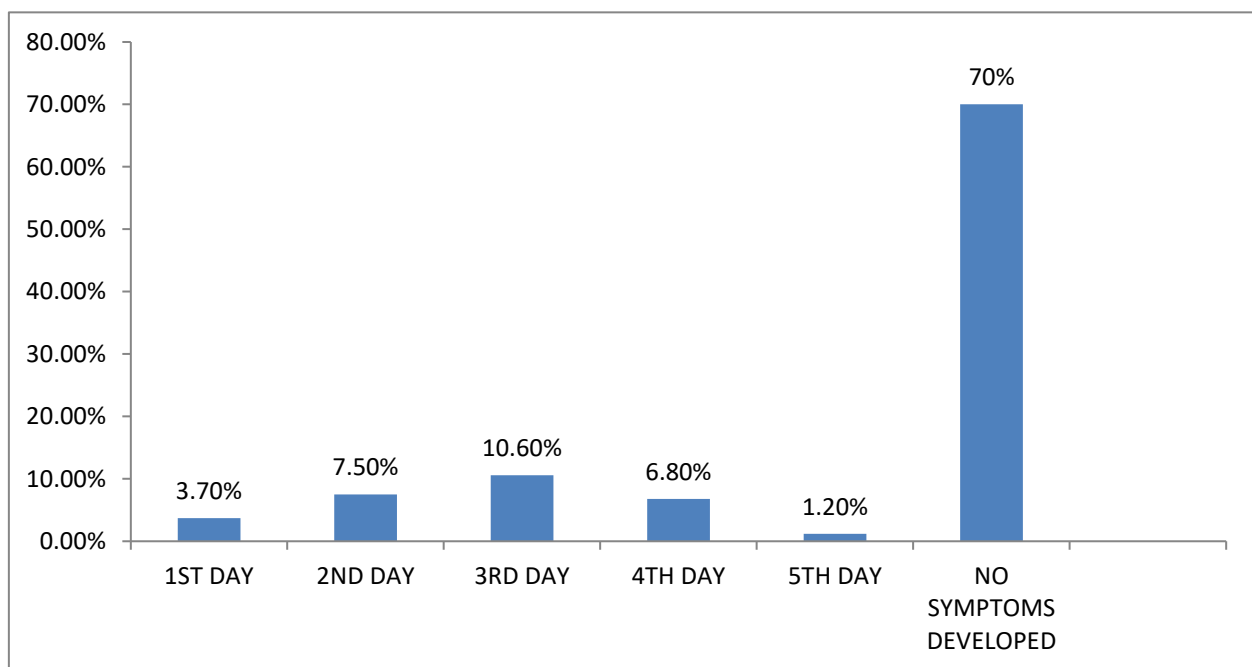
**Figure 1.** Age Distribution



**Figure 2.** Sex Distribution

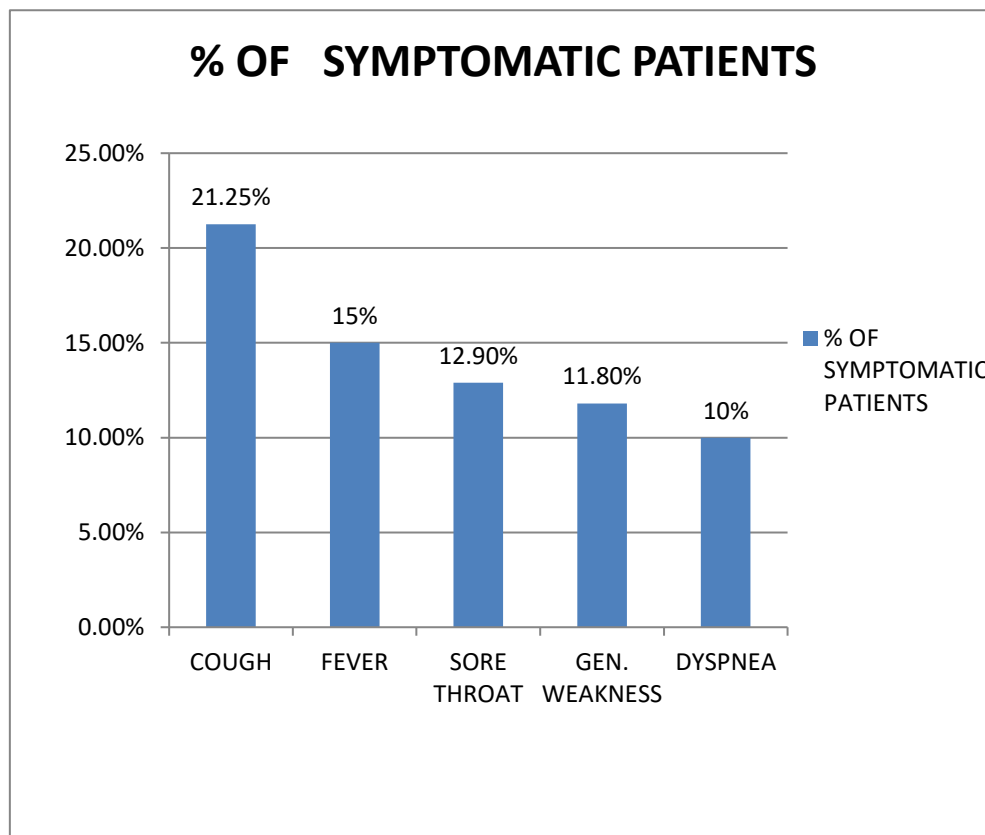


**Figure 3.** % OF CO-MORBID PATIENTS



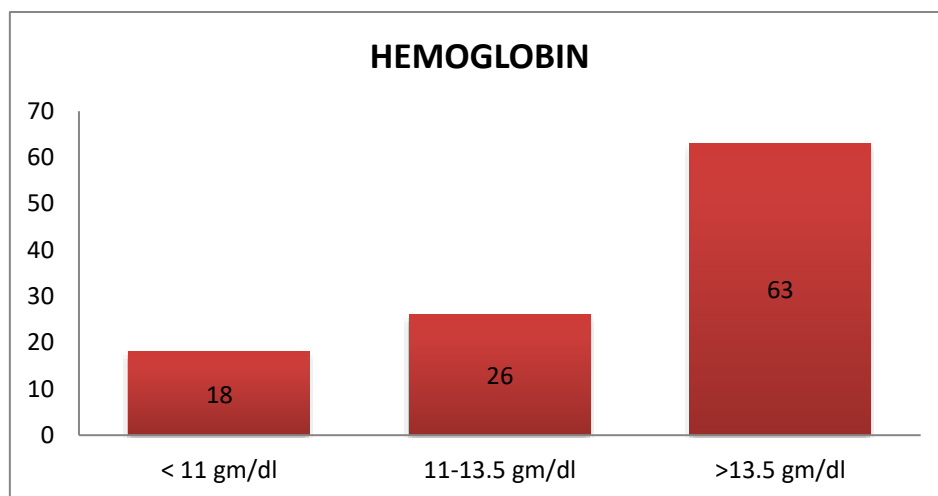
**Figure 4.** DAY WISE DISTRIBUTION OF ASYMPOMATIC PATIENTS

A total of 160 patients were asymptomatic before the trial began, with the majority of them (70%) remaining asymptomatic throughout their illness. On the third day, 17 patients (10.6 percent) experienced symptoms, while on the second, fourth, first, and fifth days, 7.5%, 6.8%, 3.7%, and 1.2% acquired symptoms. Fever, sore throat, widespread weakness, and dyspnea were the most prevalent symptoms seen in 34 individuals (21.25%).

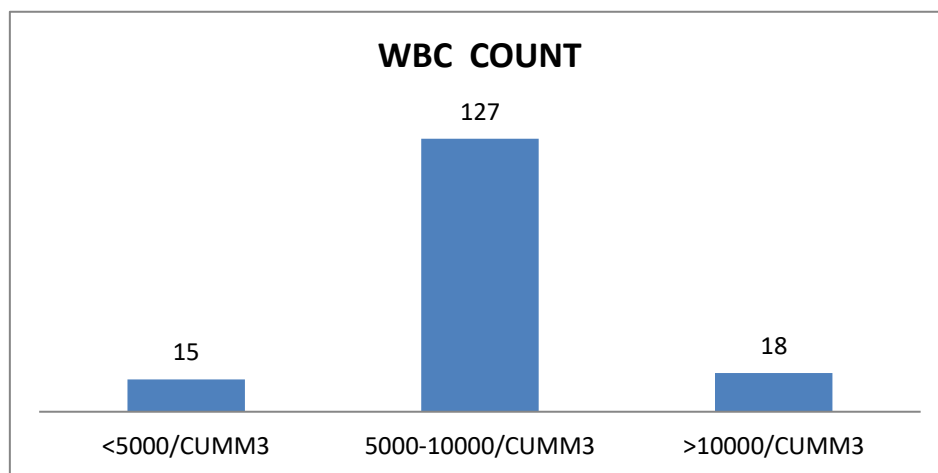


**Figure 5. SYMPTOM WISE DISTRIBUTION**

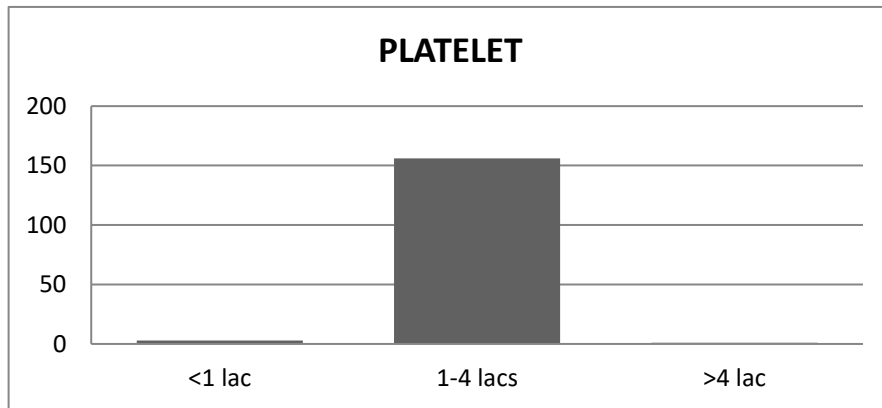
Patient was investigated for Complete Hemogram, SGPT, Serum Creatinine and BSL-R.



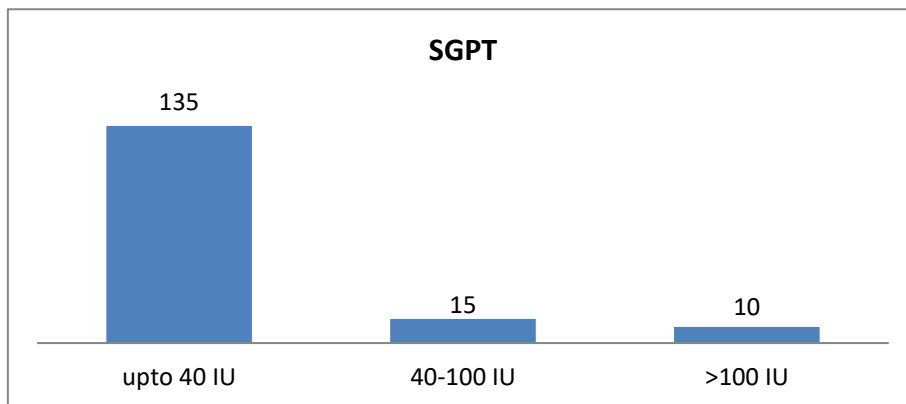
**Figure 6.** DISTRIBUTION OF Hb LEVELS



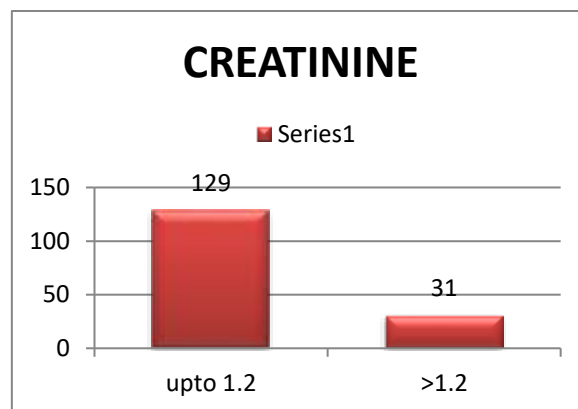
**Figure 7.** DISTRIBUTION OF WBC LEVELS



**Figure 8.** DISTRIBUTION OF PLATELET COUNT

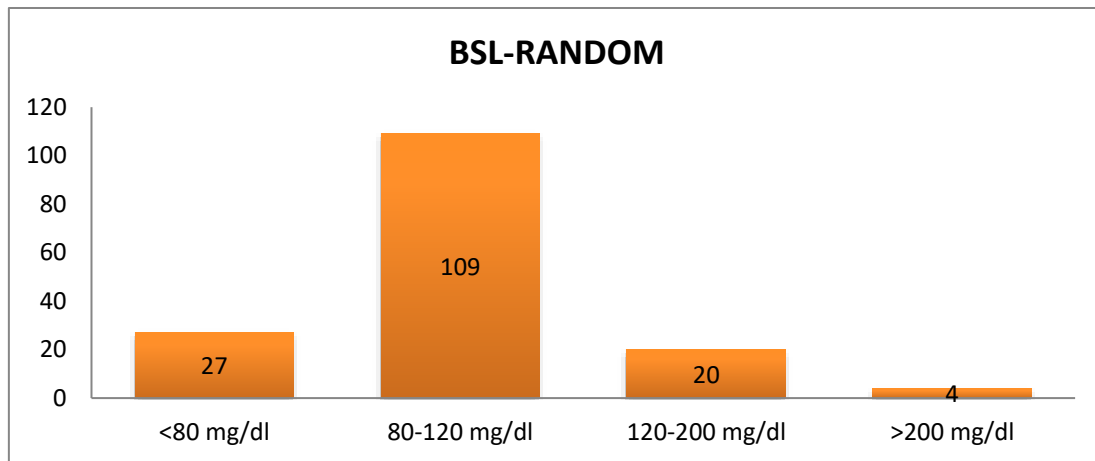


**Figure 9.** DISTRIBUTION OF SGPT LEVELS



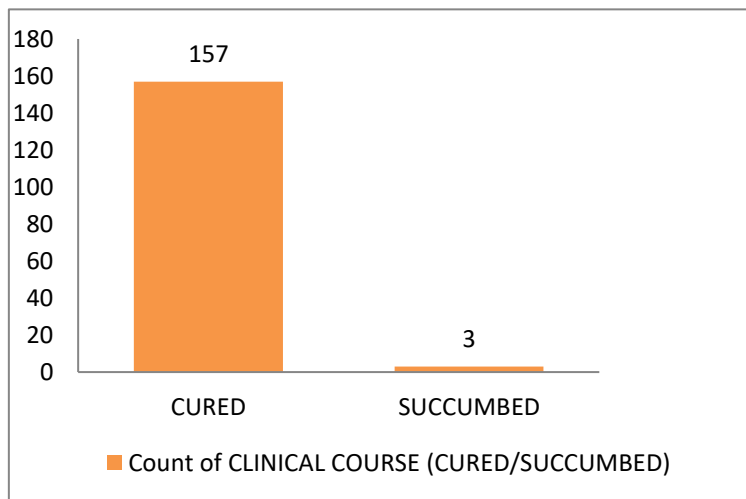
**Figure 10.** DISTRIBUTION OF CREATININE LEVELS





**Figure 11. DISTRIBUTION OF BSL-R COUNTS**

The clinical outcome was examined at the conclusion of the trial, and 98.12 percent of the patients were judged to be well treated with no further deterioration, while three patients died.



**Figure 12. CLINICAL OUTCOME**

### Discussion

The research focused primarily on the clinical profile of asymptomatic individuals, as well as their clinical course and outcome. According to a study by Quan-Xin Long et al. on Clinical and immunological examination of asymptomatic SARS-CoV-2 infections, 20.8 percent of these patients had asymptomatic infections, whereas 70% of patients in our study remained asymptomatic throughout the course.

Fever, cough, and exhaustion were the most common symptoms, as in prior research (Chang et al., 2020; Huang et al., 2020). Cough was the most common symptom in our study, appearing in 34 patients (21.25%), followed by fever, sore throat, generalised weakness, and dyspnea. On the third day, 17 patients (10.6 percent) experienced symptoms, whereas 7.5 percent, 6.8 percent, 3.7 percent, and 1.2 percent developed symptoms on the second, fourth, first, and fifth days, respectively. The viral load and clinical symptoms of 2147 close contacts of symptomatic and asymptomatic COVID-19 individuals were followed up on in a prospective research from Ningbo. They found that close contacts were infected with the virus at a rate of 6.3 percent for symptomatic patients and 4.11 percent for asymptomatic individuals (6). A recent study of 455 contacts who were exposed to an asymptomatic virus carrier found that asymptomatic viral carriers' infectivity was low. It's worth noting that a COVID-19 patient's asymptomatic state during the convalescent stage can persist up to seven days in moderate cases (7). The disease had no effect on blood cell counts, liver and renal function, or inflammation in asymptomatic patients. Although clinically symptomatic COVID-19 individuals have lower lymphocyte and leukocyte counts, these alterations were not seen in the asymptomatic patients in this investigation. The disease had no effect on blood cell counts, liver and renal function, or inflammation in asymptomatic patients. Clinically symptomatic COVID-19 individuals had lower lymphocyte and leukocyte counts, whereas asymptomatic patients did not have similar alterations (8)

## Conclusion

In our research, we found that 30% of asymptomatic people develop symptoms. As a result, all asymptomatic individuals must be monitored for at least 5 days. Most common symptom being Cough followed fever and sore throat. There was no change observed in CBC, LFT and RFT in asymptomatic patients. Most of the asymptomatic covid-19 patients were without any comorbidity (88.75%).

## References

1. Zhu N, Zhang D, Wang W, et al; China Novel Coronavirus Investigating and Research Team. A novel coronavirus from patients with pneumonia in China, 2019 (published Jan 24, 2020). *N Engl J Med*.
2. Liu J, Liao X, Qian S, et al. Community transmission of severe acute respiratory syndrome coronavirus 2, Shenzhen, China, 2020. *Emerg Infect Dis*. 2020;26(6):507. doi:10.3201/eid2606.200239

3. Patel A, Jernigan DB, Abdirizak F, et al; 2019-nCoV CDC Response Team. Initial public health response and interim clinical guidance for the 2019 novel coronavirus outbreak—United States, December 31, 2019–February 4, 2020. *MMWR Morb Mortal Wkly Rep.* 2020;69(5):140-146. doi:10.15585/mmwr.mm6905e1
4. World Health Organization. Report of the WHO-China joint mission on coronavirus disease 2019 (COVID-19). Published February 28, 2020. Accessed April 5, 2020.  
<https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf>
5. Cheng H, Jian S, Liu D, et al. Contact Tracing Assessment of COVID-19 Transmission Dynamics in Taiwan and Risk at Different Exposure Periods Before and After Symptom Onset. *JAMA Intern Med.* Published online May 01, 2020. doi:10.1001/jamainternmed.2020.2020.
6. Chen Y, Wang AH and Yi B et al. The epidemiological characteristics of infection in close contacts of COVID-19 in Ningbo city. *J Epidemiol* 2020; 41: 667–71.
7. Asymptomatic patients and asymptomatic phases of Coronavirus Disease 2019 (COVID-19): a population-based surveillance study.
8. Epidemiological and Clinical Characteristics of 26 Asymptomatic Severe Acute Respiratory Syndrome Coronavirus 2 Carriers, Yanfeng Pan et al.

