

# Demographics, Clinical Profile and Outcomes of Severe Coronavirus Patients

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## ABSTRACT

**Objective:** Aim of this study is to determine the frequency, demographics and clinical profile and outcomes of corona virus in patients with symptoms of corona virus such as fever, sore throat, respiratory problem, diarrhea, cough and abdominal pain.

**Study Design:** Cross-sectional study

**Place and Duration:** Study was conducted at Liaquat University Hospital, Hyderabad for duration of six months from July 2020 to December, 2020.

**Methods:** Total 320 patients of both genders with ages 18 to 75 years suspected to have corona virus were enrolled in this study. Demographically details of patients including age, sex, residence and co-morbidities were recorded after taking informed consent. Real time PCR was done to confirm the cases. Complete clinical profile of corona virus patients was examined. Complete data was analyzed by SPSS 22.0.

**Results:** Among 320 patients 60 (18.75%) were diagnosed positive for corona virus disease while 260 (71.25%) had negative for corona virus. Out of 60 patients 45 (75%) were male patients and the rest were females 15 (25%). Mean age of patients was 53.54±11.68 years. Majority of patients 52 (85%) were asymptomatic, 5 (8.33%) patients were critically ill and 4 (6.67%) patients were symptomatic. Mean time to recovery was 14.11±4.55 days. Mortality found in 2 (3.33%) patients and all were critically ill.

**Conclusion:** Majority of corona virus patients were male, older age group and asymptomatic. Only 8.33% patients were critically ill. Majority of patients were recovered while only 3.33% patients were died.

**Keywords:** Covid-19, Corona virus, Age, Gender, Severity, Recovery, Mortality

## INTRODUCTION

A global viral pandemic known as 2019 coronavirus (COVID-19) [1-3] was triggered by the new coronavirus in December 2019. By Jan 7, 2020, a new coronavirus with serious acute respiratory syndrome 2 (SARS-CoV-2; previously called 2019-nCoV) was reported in these patients' lower respiratory tract samples by a thorough sequencing analysis[4,5]. Non-regimented RNA viruses belonging to the Coronaviridae family are encased and in the order Nidovirales are widespread in humans and other mammals[5,6]. It was assumed that initial coronavirus infection was spread by animals and that secondary patients were infected via human to human transmission with the virus. [1,2,4,6] The fast-growing cases have continued. More than 212 COVID-19 countries were present at the beginning of January 2021. And a total of over 85.7 million confirmed cases have been reported with COVID-19, 23.6 million have already been confirmation with COVID-19 and over 1.85 million worldwide deaths.

In patients with severe COVID-19 within the ICU, mortality rates range from 50 to 60% [7,8]. The mortality rates were reported to reach up to 97 percent in patients with MV[9]. There have been different regional experiences in the management of severe COVID-19 severe patients between cities and nations and new data imply a decreased mortality rate[10]. The regional and institutional variations in ICU outcomes and overall mortality are not clearly understood yet and are not related to the use experimental therapies, given the fact that recent reports with the use remdesivir [11] In view of the inconsequential

and improvement of mortality in hydroxychloroquina [12], lopinavir-ritonavir [13], and convalescent plasma[14,15], the regional and institutional variations of the ICU outcome and overall mortality have been unclear and not related to experimental treatments. Therefore, the poor ICU results and high CARDS death rates prompted concerns over mechanical breathing systems and the successful implementation of the standard care protocols.

In order to enable the early identification of those at risk of serious critical diseases, our study aims to produce local data to better understand our patient community. We want to analyze mortality factors and to evaluate management options and supporting medicines to improve future outcomes.

## MATERIALS AND METHODS

This cross-sectional study was conducted at Liaquat University Hospital, Hyderabad for duration of six months from July 2020 to December, 2020. Total 320 patients with symptoms of corona virus were enrolled in this study. Patients detailed demographics including age, sex, residence and co-morbidities were recorded after taking written consent. The COVID-19 screening was subsequently made in real time in PCR in all cases, irrespective of gender or age, either asymptomatic and serious diseases or with non-specific symptoms such as the fever, flu or cough. After all, a qualified professional has obtained the aseptic measurement at the point where a person is tested and the extraction of RNA made by the Abbott RT automotive exhaust system utilizing extraction kits from Abbott Labs has been examined. The ABI heat

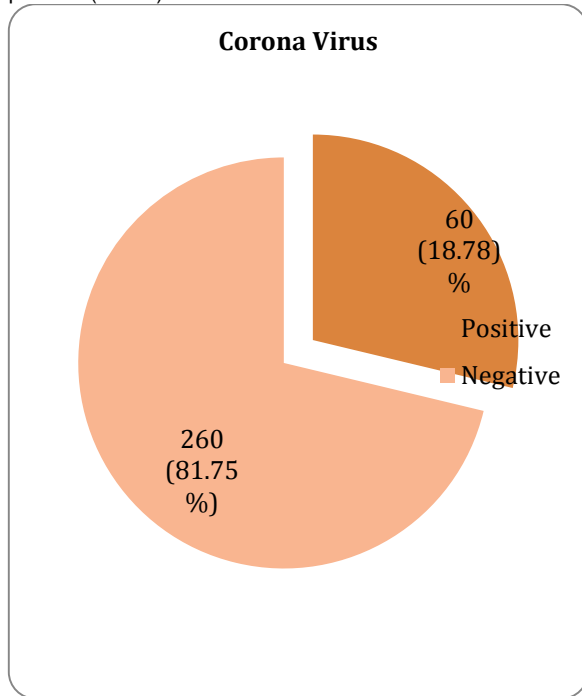
cycle was detected and detected with the use of Haploid biological system kits.

Complete clinical profile of corona virus patients was examined. Data was analyzed by SPSS 22.0. Frequencies and percentages were recorded. Mean $\pm$ SD was done.

## RESULTS

Among all the suspected patients with symptoms of corona virus illness, 60 (18.75%) were severe positive for corona virus while 260 (81.25%) had negative for corona virus. (Figure 1)

Figure No 1: Frequency of corona virus among all the suspected patients (n=320)



Out of 60 patients 45 (75%) were male while 15 (25%) were females. Mean age of patients was 53.54 $\pm$ 11.68 years. 38 (61.67%) patients had travelling history while 23 (38.33%) had no travel history. Diabetes mellitus was the commonest com-morbidity found in 22 (36.67%) followed by hypertension in 20 (33.33%), lung disease found in 5 (8.33%), cardiovascular disease found in 4 (6.67%) patients respectively. (Table 1)

Table No 1: Demographics of corona virus patients

Characteristics	Frequency No.	%age
Mean age	53.54 $\pm$ 11.68	-
Gender		
Male	45	75
Female	15	25
Traveling History		
Yes	38	61.67
No	22	38.33
Co-morbidities		
Diabetes Mellitus	22	36.67
Hypertension	20	33.33
Lung Disease	5	8.33
CVD	4	6.67

Majority of patients 51 (85%) were asymptomatic, 5 (8.33%) patients were critically ill and 4 (6.67%) patients were symptomatic. (Table 2)

Table No 2: Clinical examination of covid-19 patients

Variables	Frequency (n=60)	%age
Severity		
Asymptomatic	51	85
Symptomatic	5	8.33
Critically Ill	4	6.67

Mean time to recovery was 14.11 $\pm$ 4.55 days. Mortality found in 2 (3.33%) patients and all were critically ill. (table 3)

Table 3: Outcomes of covid-19 patients

Variables	Frequency	%age
Mean recovery time	14.11 $\pm$ 4.55	-
Mortality		
Yes	2	3.33
No	58	96.67

## DISCUSSION

In December 2019, the first corona virus was detected in Wuhan, China, which spread rapidly all over the world to this life-threatening disease. More than 200000 people in Pakistan have been infected with corona virus and there have been more than 4000 deaths [16]. Pakistan is a country with too high a spread of the corona virus and the cause of non-serious people's behavior and the failure to implement SOPs to avoid this life-threatening disease. We have undertaken this study in patients with synthetic corona viruses such as fever, cough, sore throat, diarrhea, abdominal discomfort, and difficulty breathing, to investigate their prevalence, demographic, and clinical profile of corona viral illness.

Total 320 suspected patients were enrolled in this study. Among them 60 (18.75%) were diagnosed to have severe corona virus disease while 260 (81.25%) had negative for corona virus. Out of 115 patients 82 (71.30%) were male while 33 (28.70%) were females. Mean age of patients was 53.54 $\pm$ 11.68 years. 38 (61.67%) patients had travelling history while 23 (38.33%) had no travel history. Studies demonstrated that males were predominant to have corona virus than females and majority of patients were ages 30 to 50 years [17,18].

Most people with corona virus have fever, abdomen ache, sore neck and diarrhea symptoms. Corona virus studies found that corona virus symptoms are connected with fever, sore throat, diarrhea and breathing problems [19]. People with history of travel had high infection rates worldwide than those with no experience of travel. This is one of the reasons why this life threatening disease is spreading [20].

In present we found that majority of patients 51 (85%) were asymptomatic, 5 (8.33%) patients were critically ill and 4 (6.67%) patients were symptomatic. Mean time to recovery was 14.11 $\pm$ 4.55 days. Mortality found in 2 (3.33%) patients and all were critically ill. 58 (96.67%) patients were cured/recovered. The corona virus studies showed that most corona virus cases were moderate in condition in 90% and 7%, although the corona virus mortality ratio was just 2% [6-21]. Sedation minimisation, daily breathing tests,

early mobility, as well as other evidence based practices can improve the results, but these time- and coordination-intensive practices may not be present in overwhelmed ICUs, particularly if isolation procedures and other related concerns of COVID-19 interfere with usual care. This can lead to more profound drowsiness, less breathing tests and less mobility for patients with severe COVID-19 than other septic patients, all of which can lead to poor recoveries.

## CONCLUSION

We concluded from this study that majority of corona virus patients were male, older age group and asymptomatic. Only 8.33% patients were critically ill. Majority of patients were recovered while only 3.33% patients were died.

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