

Determine the Frequency of Corona Virus and Examine the Demographics and Clinical Profile of Coronavirus Patients

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ABSTRACT

Aim: To examine the frequency, demographics, 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 of Study: Department of Medicine, Chandka Medical College Hospital Larkana from 1st March 2020 to 31st May 2020.

Methodology: Four hundred patients of both genders with ages 20 to 80 years suspected to have corona virus were enrolled in this study. Patients detailed demographics including age, sex, residence and co-morbidities were recorded after taking written consent. Real time PCR was done to confirm the cases. Complete clinical profile of corona virus patients was examined.

Results: There were 115 (28.75%) diagnosed to have corona virus while 285 (71.25%) 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 56.45±10.85 years. Majority of patients 100 (86.96%) were asymptomatic, 8 (6.96%) patients were critically ill and 7 (6.09%) patients were symptomatic. Mean time to recovery was 12.42±2.76 days. Mortality found in 3 (2.61%) patients and all were critically ill.

Conclusion: Majority of corona virus patients were male, older age group and asymptomatic. Only 6.96% patients were critically ill. Majority of patients were recovered while only 2.61% patients were died.

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

INTRODUCTION

Corona viruses are enveloped non-segmented positive-sense RNA viruses belonging to the family Coronaviridae and the order Nidovirales and broadly distributed in humans and other mammals.¹ Although most human coronavirus infections are mild, the epidemics of the two beta coronaviruses, severe acute respiratory syndrome corona virus (SARS-CoV)^{2,3} and Middle East respiratory syndrome corona virus (MERS-CoV)⁴ have caused more than 10 000 cumulative cases in the past two decades, with mortality rates of 10% for SARS-CoV and 37% for MERS-CoV.⁵ The corona viruses already identified might only be the tip of the iceberg, with potentially more novel and severe zoonotic events to be revealed.

The infection seriousness has changed from self-confining flu like sickness to fulminant pneumonia, respiratory shame and mortality. There are varieties in the passing rates and these evaluations are rapidly changing as more data is opening up and in process.⁶ According to WHO, Coronavirus sickness (COVID-19) Situation Report – 106 discharged on May 6, 2020, all out affirmed instances of COVID19 comprehensively are 3, 517, 345 and complete Deaths were 2,43, 401.⁷ A much lower mortality of 1.4% has been represented investigation of information of 1099 patients with research focus certified COVID-19 from 552 facilities in terrain China.⁸ Since the beginning of the coronavirus pandemic there has been an all-inclusive utilization of spreads and sanitizers acknowledging fatigue of assets in the market. An insufficiency of individual

protected contraption jeopardizes success laborers around the world.⁹ The non accessibility of fitting defensive estimates like PPEs, legitimate N95 covers and other defensive measures involves worry among medical clinic workforce. The issue is intense in a nation like Pakistan which is a thickly populated without a solid and entrenched wellbeing foundation.¹⁰ Open has been prompted through broad communications against mass get-togethers of all sort including sports, schools and strict nature to hell the spread of this savage infection. Regardless of these undertakings, various people disregard the criticalness of social disengagement on account of open mentality^{11,12}.

We conducted present study with aimed to examine the clinical profile and demographics of corona virus patients.

MATERIALS AND METHODS

This cross-sectional study was conducted at Department of Medicine, Chandka Medical College Hospital Larkana from 1st March 2020 to 31st May 2020. A total of 400 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. All the cases regardless of age and gender presented either as asymptomatic, critical illness or having non-specific symptoms as fever, flu, cough; sore throat and shortness of breath were then screened for COVID-19 by real time PCR. From the point that a person is tested, a sample has been taken after all aseptic measure by trained technician under the supervision of health care provider and analyzed through the RNA extraction done by Abbott

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RT auto extraction system by using extraction kits of Abbott Labs and detection was done on ABI thermal cycle by haploid bio system by using sansure detection kits. Complete clinical profile of corona virus patients was examined. Data was analyzed by SPSS 24.

RESULTS

Out of all the suspected patients with symptoms of corona virus illness, 115 (28.75%) were diagnosed to have corona virus while 285(71.25%) had negative for corona virus (Fig. 1). Out of 115 patients 82(71.30%) were male while 33(28.70%) were females. Mean age of patients was 56.45±10.85 years. 68(59.13%) patients had travelling history while 47(40.87%) had no travel history. Diabetes mellitus was the commonest com-morbidity found in 40(34.78%) followed by hypertension in 36(31.30%), lung disease found in 8 (6.96%), cardiovascular disease found in 6(5.22%) patients respectively (Table 1). Majority of patients 100 (86.96%) were asymptomatic, 8 (6.96%) patients were critically ill and 7(6.09%) patients were symptomatic. Mean time to recovery was 12.42±2.76 days. Mortality found in 3 (2.61%) patients and all were critically ill. 112 (97.39%) patients were cured/recovered (Table 2)

Fig. 1: Frequency of corona virus among all the suspected patients (n=400)

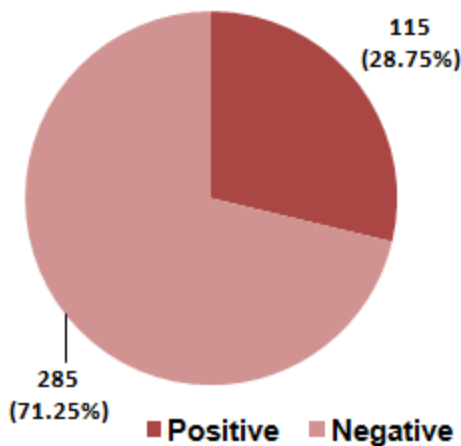


Table 1: Demographics of corona virus patients

Variable	No.	%
Age (years)	56.45±10.85	
Gender		
Male	82	71.3
Female	33	28.7
Traveling History		
Yes	68	59.13
No	47	40.87
Co-morbidities		
Diabetes Mellitus	40	34.78
Hypertension	36	31.3
Lung Disease	8	6.69
CVD	6	5.22

Table 2: Clinical examination of covid-19 patients

Variable	No.	%
Severity		
Asymptomatic	100	86.96
Symptomatic	7	6.09
Critically ill	8	6.96
Outcome		
Mortality	3	2.61
Recovered	112	97.39
Time to recovery (days)	12.42±2.76	

DISCUSSION

The first case of corona virus was found in Dec 2019 in Wuhan, China and then this life threatening illness spread quickly to all over the world. In Pakistan more than 200000 people got infected with corona virus and more than 4000 deaths have been reported¹³. Pakistan is one of the country in which the spread of corona virus is too high and the reason behind is non-serious behave of people and do not follow the SOPs for prevention of this life threatening disease. We conducted present study to examine the frequency, demographics and clinical profile of corona virus illness in patients presented with symptoms of corona virus such as fever, cough, sore throat, diarrhea, abdominal pain, and difficulty to breathe. Among them 115 (28.75%) were diagnosed to have corona virus while 285 (71.25%) 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 56.45±10.85 years. 68 (59.13%) patients had travelling history while 47(40.87%) 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^{14,15}.

We found that majority of patients with corona virus had a symptoms of fever, abdominal pain, sore throat and diarrhea. Studies on corona virus showed that fever, sore throat, diarrhea and respiratory problems were the associated symptoms of corona virus.^{16,17} Worldwide, people with traveling history had high rate of infection than the people with no traveling history. This is one of the main reasons of spreading this life threatening illness¹⁸.

In our study we found that majority of patients 100 (86.96%) were asymptomatic, 8 (6.96%) patients were critically ill and 7 (6.09%) patients were symptomatic. Mean time to recovery was 12.42±2.76 days. Mortality found in 3 (2.61%) patients and all were critically ill. 112 (97.39%) patients were cured/recovered. In the study by Mizumoto et al¹⁹, of the 634 diagnosed cases, a total of 306 and 328 were observed to be symptomatic and asymptomatic and soon after detection of infections both groups were transported to get the medical facilities at hospitals. Indeed the asymptomatic individuals are useful quantity to determine the true burden of disease and can better interpret the transmission burden as evidence highlights that the fraction of SARS-CoV-2 positive individuals are mostly asymptomatic.²⁰ Studies on corona virus demonstrated that majority of corona virus cases were mild in condition 90% and 7% patients were critically ill while the death ratio with corona virus reported only 2%²¹.

CONCLUSION

Majority of corona virus patients were male, older age group and asymptomatic. Only 6.96% patients were critically ill. Majority of patients were recovered while only 2.61% patients were died.

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