

The Clinical Status and Hospital Outcome of COVID-19 Patients: Study in a Tertiary Care Hospital, Dhaka, Bangladesh

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ABSTRACT

Background: In this study our main goal is to evaluate the clinical status and hospital outcome of COVID-19 patients in Bangladesh. **Methods:** This cross-sectional study was carried out at tertiary medical college and hospital from April 2020 to December 2020. **Results:** During the study, 36% had cough followed by 12% had cough with running nose, 9.1% had dry cough, 6.1% had cough with nasal blockage, tastelessness, weakness, breathless. 47.8% had fever 5-8 days, followed by 30% had fever 1-4 days, 13% had fever >12 days and 8.7% had fever for 9-12 days. For both male and female group most of the patients were in covid-19 mild cases where as among 62 patients only 1 patient had covid-19 with severe cases. 47.8% had fever 5-8 days, followed by 30% had fever 1-4 days, 13% had fever >12 days and 8.7% had fever for 9-12 days. 36.5% patients stayed in hospital for 10-13 days followed by 33.3% patients stayed in hospital for 14-17 days, 15.9% had stayed in >7 day and 14.3% had stayed 2-5 days. **Conclusion:** From our study we can say that, most of the patients in this study had mild symptom of COVID-19 and most of the patients discharged with good recovery. Also, middle aged patients were at high risk of infection. Further study is needed for better study.

Keywords: COVID-19, Pandemic situation, Coronavirus.

INTRODUCTION

Coronavirus is an enveloped single stranded RNA virus.^[1,2] There are various corona viruses like severe acute respiratory syndrome coronavirus (SARS-CoV), Middle East respiratory syndrome coronavirus (MERS-CoV) and now, severe acute respiratory syndrome corona virus 2 (SARS-CoV-2), previously which was known as 2019-nCoV.^[3] This SARS-CoV-2 is responsible for corona virus disease 2019 (COVID-19).^[4] On 11 March 2020, COVID-19 was declared as global pandemic due to its spreading ability across the continents.^[5] The first COVID-19 case was reported from Wuhan, China, in December 2019.^[6] In Bangladesh first three cases were detected on 8 March 2020.^[7]

Clinical presentation of COVID-19 varies from no symptom to fatal disease. Fever, dry cough, breathlessness and fatigue are the most common clinical manifestations. Radiographic presentations of the chest are mostly peripheral in distribution with ground-glass opacity (GGO), crazy paving, fine

reticular opacity, vascular thickening and pneumonia.^[8,9]

In this study our main goal is to evaluate the clinical status and hospital outcome of COVID-19 patients in Bangladesh.

Objective

To assess the clinical status and hospital outcome of COVID-19 patients in Bangladesh.

MATERIALS AND METHODS

It was a cross-sectional and analytical study. The study place was carried out at Tertiary medical College Hospital, Bangladesh. Where data were collected from April 2020 to December 2020. A total of 62 all patients having clinical symptoms and signs of COVID-19, above the age of 18 years, irrespective of gender. Both qualitative and quantitative (Mixed Method) data were collected by using a pre designed questionnaire. The questionnaire was prepared reviewing literature and consulting with medical research experts. All collected data were coding and input in SPSS-25 for further analysis. Both descriptive and inferential statistics done. Descriptive statistics included frequency distribution, percent, mean, standard deviation; graph, tables, figures and inferential statistics.

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RESULTS

Study shows age distribution of the patients where most of the patients belong to 36-56 years age group 47.4%, followed by 43.4% cases belong to 15-35 years age group, 7.9% cases belong to 57-77 years age group and 1.3% cases belong to > years age group. [Table 1]. Study shows gender distribution of the patients where most of the participants were male 73%. [Figure 1] Study shows residential area of the patients where 92.1% were coming from urban. Study shows distribution of the patients according to symptom where 36% had cough followed by 12% had cough with running nose, 9.1% had dry cough, 6.1% had cough with nasal blockage, tastelessness, weakness, breathless. [Table 2] Study shows fever duration before admission to hospital where 47.8% had fever 5-8 days, followed by 30% had fever 1-4 days, 13% had fever >12 days and 8.7% had fever for 9-12days. [Table 3] Study shows distribution of diagnosis according to gender where for both male and female group most of the patients were in covid-19 mild cases where as among 62 patients only 1 patient had covid-19 with severe cases. [Table 4] In [Table 5] shows distribution of diagnosis according to age where about 48.4% 26-36 years age group patients belong to mild cases of covid-19 followed by 25.6% for 37-47 years age group, 12.9% for 48-58 years age group, and 11.3% for 15-25 years age group. We found covid-19 severe cases only 1 patient who belong to 37-47 years age group. [Table 5] Study shows duration in hospital stay where 36.5% patients stayed in hospital for 10-13 days followed by 33.3% patients stayed in hospital for 14-17 days, 15.9% had stayed in >7 day and 14.3% had stayed 2-5 days. [Table 4] Study shows mode of discharge where 83.3% were discharged with good recovery followed by 9.3% discharge on request, 1.9% were DORB and referred. [Table 6]

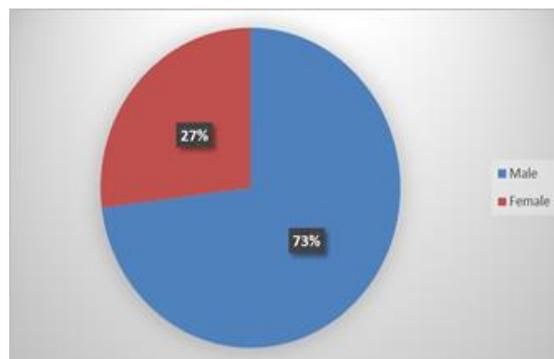


Figure 1: Gender distribution of the patients.

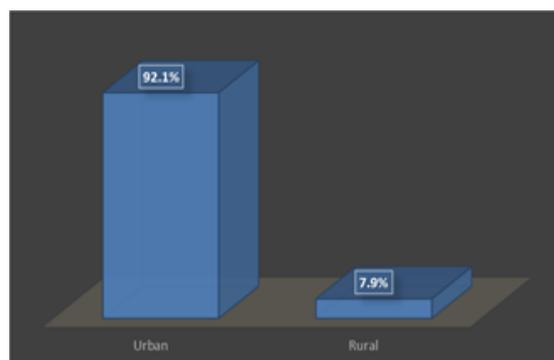


Figure 2: Residential area of the patients.

Table 1: Age distribution of the patients. (n=63)

Age group	Frequency	Percent	Mean	Std.
15-25 years	7	11.1	36.587	11.0097
26-36 years	30	47.6		
37-47 years	17	27.0		
48-58 years	8	12.7		
59-69 years	1	1.6		
Total	63	100.0		

Table 2: Distribution of the patients according to symptom

Symptom	Percent
Dry cough	9.1
Breathless	6.1
Dry cough and breathless	3.0
Cough	36.4
Common Cold, sore throat	9.1
Cough, Nasal Blockage	6.1
Cough, Running nose	12.1
Nasal Contestation	3.0
Cough, Breathlessness, restlessness and body pain	3.0
Myalgia, Dry cough, Chest tightness, chest pain	3.0
Tastelessness, weakness	6.1
Insomnia	3.0
Total	100.0

Table 3: Fever duration before admission to hospital

Fever duration	Percent
1 to 4 days	30.4
5 to 8 days	47.8
9 to 12 days	8.7
> 12 days	13.0
Total	100.0

Table 4: Distribution of diagnosis according to gender

Diagnosis of the patients	Covid-19 positive, mild cases	Count	Gen		Total
			Male	Female	
Diagnosis of the patients	Covid-19 positive, mild cases	Count	45	17	62
		% within Diagnosis of the patients	72.6%	27.4%	100.0%
	Covid-19 positive, severe cases	Count	1	0	1
		% within Diagnosis of the patients	100.0%	0.0%	100.0%

Table 5: Distribution of diagnosis according to age

			Age group				
			15-25 years	26-36 years	37-47 years	48-58 years	59-69 years
Diagnosis of the patients	Covid-19 positive, Mild	Count	7	30	16	8	1
		% within Diagnosis of the patients	11.3%	48.4%	25.8%	12.9%	1.6%
	Covid-19 positive, Severe	Count	0	0	1	0	0
		% within Diagnosis of the patients	0.0%	0.0%	100.0%	0.0%	0.0%

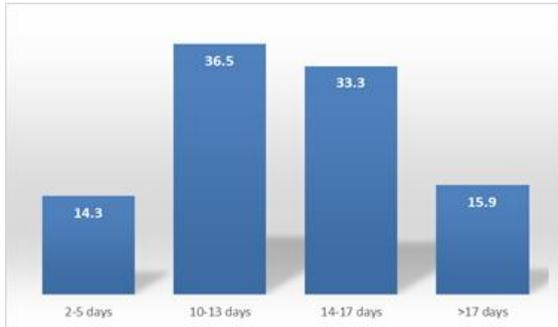


Figure 3: Duration in hospital stay

Table 6: Mode of discharge

Mode of discharge	Percent
DOR	9.3
Discharge with good recovery	83.3
DOE	3.7
DORB	1.9
Referred	1.9
Total	100.0

DISCUSSION

In one study found that, mean age 41.7±16.3years, 63% male and 37% female, matched that of several report with median age: 47 years; 41.9% female.^[5] Other reports from Bangladesh found that, 43% were in the age range of 21 to40 years, female: male ratio 1:2.33.^[6] But studies from America found that, median age, 63 years.^[7] Where as in our study we found that, 36-56 years age group 47.4%, followed by 43.4% cases belong to 15-35 years age group, 7.9% cases belong to 57-77 years age group and 1.3% cases belong to > years age group. Also, most of the patients were male. Another study found their report that, patients also got admitted predominantly with fever (69%), cough (54%), breathlessness (41%) and fatigue (40%). Gastrointestinal symptoms followed with anorexia (26%), diarrhea (13%), nausea or vomiting (9.0%) and abdominal pain (4.0%) without any occurrence of GI bleeding. Anosmia, a rare symptom, occurred in 10% of our patients.^[8] Studies from Europe first urged the international scientific community that the sudden anosmia or ageusia need to be recognized as important symptoms of the COVID-19 infection.^[9] Where as in our study, 12% had cough with running nose, 9.1% had dry cough, 6.1% had cough with nasal blockage, tastelessness, weakness, breathless.

Death rate 10 out of 100 is higher in respect to WHO reported Case Fatality Rate of Bangladesh, which is 1.36% on 2 June, 2020. Causes remain old age, terminal cases are commonly referred to this reputed tertiary care referral hospital (2 patients died just on the day of admission) and unavailability of adequate ICU beds.^[10] In our study we identified that, where 36.5% patients stayed in hospital for 10-13 days followed by 33.3% patients stayed in hospital for 14-17 days, 15.9% had stayed in >7 day and 14.3% had stayed 2-5 days. 83.3% were discharged with good recovery followed by 9.3% discharge on request, 1.9% were DORB and referred.

CONCLUSION

Most of the patients in this study had mild symptom of COVID-19 and most of the patients discharged with good recovery. Also, middle aged patients were at high risk of infection. Further study is needed for better study.

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