THE EPIDEMIOLOGICAL PROFILE OF COVID-19 PATIENTS

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Abstract

Background: In this study, epidemiological profiles of COVID-19 patients who have visited the hospital have been evaluated.

Methods: We collected data of 100 patients from their medical records. These data included age, sex, comorbidities, levels of illness severity (mild, moderate, severe, and asymptomatic), signs and symptoms, treatment options, laboratory findings, and computed tomography (CT) images

Results: The mean age were 61.23 ± 12.36 years with age groups ranging from 17 to 85 years. Men were 69; M:F ratio being 2.26:1. There were 76 symptomatic and 24 asymptomatic patients. Mortality was higher in symptomatic patients.

Conclusion: Patients aged more than 60 years are more prone for severe disease with Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) pneumonia and this subset of patients requires urgent medical attention.

Keywords: Age, Sex, COVID-19.

Introduction

On 29 December 2019, pneumonia cases were detected in a hospital in Wuhan, China. ¹ The Chinese Center for Disease Control and Prevention then confirmed, after studying throat cultures from patients, that these cases were caused by a new type of beta-coronavirus². The exact mode of transmission of the disease is not known, and while the current information is limited, it supports person-to-person transmission. The most possible routes of transmission are thought to be droplet-based and contact-based.³

In general, coronaviruses can cause various conditions, including respiratory, enteric, neurological and hepatic diseases⁴. Severe respiratory disease can be seen in the elderly and specific patient groups, such as those with underlying medical conditions.⁵

Early diagnosis is vital when considering the short time of onset of acute respiratory distress syndrome after admission to hospital and the high mortality rates in the Coronavirus Disease of 2019 (COVID-19).⁶

Material and Methods

Study Design and Participants

This single-center retrospective observational study was conducted on 100 patients diagnosed with COVID-19. Data were collected on admission or during hospitalization by attending physicians and documented in the form of electronic medical records.

Data Collection

We collected data of 100 patients from their medical records. These data included age, sex, comorbidities, levels of illness severity (mild, moderate, severe, and asymptomatic), signs and symptoms, treatment options, laboratory findings, and computed tomography (CT) images.

Statistical Analysis

Data was recorded as per Performa. The data analysis was computer based; SPSS-22 was used for analysis. For categorical variables chi-square test was used. For continuous variables independent samples's *t*-test was used. *p*-value <0.05 was considered as significant.

Results

Table 1: General characteristics

Variable		Frequency
Age in Yrs		61.23±12.36
Sex	Male	69
	Female	31
Fever		58
Cough		90
Headache		36
Malaise		66
Shortness of breath		62

Table 2: Severity of disease

Variable	Frequency
Asymptomatic	24
Mild	50
Moderate	10
Severe	16

Table 3: Outcome

Variable	Frequency
Death	11
ICU stay	9.36±3.26 days

Discussion

This study is focused on analysing and identifying the demographic and clinical of 100 COVID-19 patients admitted in a tertiary care centre. Higher age (>60 years) had a strong positive correlation with mortality in the present study. Also, the requirement of ICU increased with increasing age. Patients with severe disease most of the time required ICU care at our centre. These findings are parallel to studies where increasing age correlated with the severity of disease.⁷ Another study done in United States suggest that 80% of deaths occurred in age group >65 years with 53% requiring ICU admission.⁸ These findings are analogous to data from China, where more than 80% deaths occurred in the age group of >60 years.⁹ In the present study, symptomatic patients were more than the asymptomatic ones. This finding is unlike the other studies.^{6,7} As the study hospital is a tertiary care centre, there are more symptomatic and severe diseased patients seeking medical attention than the asymptomatic high-risk contacts. The most common symptoms were fever, cough and breathlessness. The authors found that their study had similar findings to those of others conducted globally.⁶⁻⁸

Conclusion

Patients aged more than 60 years are more prone for severe disease with Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) pneumonia and this subset of patients requires urgent medical attention.

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