



STUDY OF CLINICAL PROFILE OF COVID-19 PATIENTS ADMITTED IN A TERTIARY CARE HOSPITAL IN NORTHWEST RAJASTHAN

Medicine

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ABSTRACT

Background : The COVID-19 pandemic caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), is a global public health crisis since its initial reports in China. our aim is study of Clinical data [age, previous chronic disease, epidemiological history, symptoms, laboratory tests, and treatment process] of the 50 patients involved in this study. **Method :** We retrospectively analysed first 50 patients who give consent and diagnosed with COVID-19 admitted in Department of Medicine, S.P. Medical College, Bikaner, Rajasthan, India. **Results and Discussion:** It was observed that Covid 19 infection occurred in the all age group ranging from infant to elderly. Majority of patients were asymptomatic. Relative Lymphocytosis and elevated RDW and reduced MPV in hemogram are common findings. **Conclusion:** From present study we conclude that majority of patients are Asymptomatic and fever is most common symptoms and increased RDW , decreased MPV and Relative lymphocytosis is most common laboratory finding.

KEYWORDS

INTRODUCTION:

In December 2019, an outbreak of pneumonia cases of unknown etiology was identified in Wuhan City, Hubei Province, China [1]. A novel coronavirus was identified as the causative agent [2] and was subsequently termed COVID-19 by the World Health Organization (WHO) [3]. Considering its worldwide reach and severity, COVID-19 has been declared a pandemic by the WHO on March 11, 2020, and continues to spread across the globe within about three months. The severe contagiousness and rapid disease progression of the 2019 coronavirus disease (COVID-19) have drawn significant global public health attention.

The 2019-nCoV has close similarity to bat coronaviruses, and it has been postulated that bats are the primary source. While the origin of the 2019-nCoV is still being investigated, current evidence suggests spread to humans occurred via transmission from wild animals illegally sold in the Huanan Seafood Wholesale Market.[4]

COVID-19 is caused by the infection of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), which potentially elicits pulmonary hyper-inflammation and infiltration, as well as potentially life-threatening "cytokine storms" [5]. Currently no vaccines and specific therapeutic drugs are targeting this virus [6]. Most recommendations on preventing disease transmission and treating infected patients are based on anecdotal evidence and the opinions of clinical experts. Supportive management remains the pivot of treatment protocols in the absence of evidence on efficacious antiviral or anti-inflammatory medications [7].

Material and Methods

We retrospectively analysed first 50 patients who give consent and

diagnosed with COVID-19 admitted in Department of Medicine, S.P. Medical College, Bikaner, Rajasthan, India. Patients suspected of having COVID-19 were admitted and quarantined, and throat swab samples were collected and tested for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) by quantitative polymerase chain reaction assay (qPCR). Patients diagnosed with COVID-19 and give consent were enrolled in this study.

Data collection

Clinical data [age, previous chronic disease, epidemiological history, symptoms, laboratory tests, and treatment process] of the 50 patients involved in this study were collected. The medical records of patients were analyzed by the research team of the Department of Medicine, S.P. Medical College, Bikaner, Rajasthan, India. Epidemiological, clinical, laboratory, and radiological characteristics and treatment and outcomes data were obtained with data collection forms from medical records and history given by patients. All data was reviewed by internal medicine specialists. Information recorded included demographic data, medical history, exposure history, underlying comorbidities, symptoms, signs, laboratory findings; chest X ray, and treatment measures (antiviral therapy, anti-malarial therapy, respiratory support).

Sample Collection

Throat/nasal swab samples were collected for extracting 2019-nCoV RNA from patients suspected of having 2019-nCoV infection and were placed into a collection tube containing virus transport medium (VTM) for extraction of total RNA. Optimum amount of cell lysates were transferred into a collection tube and were later centrifuged. The suspension was used for RT-PCR assay of 2019-nCoV RNA.

Results:

Total 50 covid-19 infected patients were included in study. The objective of this paper is to describe the clinical profiles of these patients ranging from their age, sex, clinical symptoms, laboratory evaluation, radiological characteristics and treatment outcome.

The age ranging from 11 months to 81 years and the majority (98%) of them were below 60 years of age [table 6]. Out of 50, 28 were male and 22 were females [table 5]. Out of 50 patients, 72% were asymptomatic, 18% had fever, 14% had cough, 12% had myalgia, 8% had difficulty in breathing [table 2]. 78% of patients had decreased mean platelet value and 78% of patients had increased red blood cell distribution width. 60% of patients had relative lymphocytosis and 20% of patients had neutropenia, 34% of patients had increased sgot/sgpt and 24% had eosinopenia. 4 patients show lung infiltration on chest x ray [table 1]. Out of 50 patients 48 patients [96%] discharged after recovery and mortality is 4%.

DISCUSSION

This study included 50 Covid-19 affected patients. It was observed that Covid 19 infection occurred in the all age group ranging from infant to elderly. In the present study the youngest Covid-19 patient was a infant of 11 months of age whereas oldest was of 81 years of age. maximum patient were seen in young adult 16 to 40 year age group [64%]. In our study majority of patients were asymptomatic and those who were symptomatic fever is most common followed by cough, myalgia and difficulty in breathing. Most common laboratory findings are increased RDW [78%], decreased MPV [78%] and Relative lymphocytosis [60%]. 2 patients who were declared dead one of them is hypertensive and diabetic and another one is pregnant female.

Limitation

Limitation of our study is small number of patients.

CONCLUSION

This study showed variable range of presentation. Majority of patients are Asymptomatic which is a great epidemiological risk to the society as they can spread the infection unrestrictedly and shall be strictly isolated. Relative Lymphocytosis and elevated RDW and reduced MPV in hemogram can help in prognosis. Comorbidity and pregnancy is associated with poor prognosis.

TABLE 1

Laboratory findings	% of patients
Relative Lymphocytosis	60%
Lymphopenia	4%
Neutropenia	20%
Neutrophilia	4%
Thrombocytopenia	20%
Decreased MPV	78%
Increased RDW	78%
Increased SGOT/SGPT	34%
Eosinopenia	24%
X ray abnormality	8%

TABLE 2

Symptoms	% of patients
Asymptomatic	72%
Fever	18%
Cough	14%
Myalgia	12%
Difficulty in breathing	8%

TABLE 3

Treatment given	% of patients
Azithromycin	100%
Oseltamivir	100%
Hydroxychloroquine	80%
Antiviral drugs	4%
Oxygen support	8%

TABLE 4**Final Outcome**

Discharged	96%
Death	4%

TABLE 5**Sex Distribution**

Male	56%
Female	44%

TABLE 6**Age distribution**

Below 16 years	20%
16 to 40 years	64%
41 to 60 years	14%
above 60 years	2%

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