

Comparison of the clinical and radiological manifestations of male patients with COVID-19 from different ethnicities

Abstract:

Aim: The coronavirus disease 2019 (COVID-19) outbreak began in Wuhan, China, and quickly escalated into a significant pandemic threat. COVID-19 is associated with variable morbidity and mortality rates, which differ greatly from one country to another. This study aimed to investigate the clinical findings of SARS-CoV-2 infection in different ethnic groups, as well as to identify the radiological manifestations and various biomarkers for the assessment of COVID-19 patients.

Materials and Methods: The clinical data of 210 COVID-19 patients with respiratory disorders, who attended the chest clinic at Mouwasat Hospital, Jubail, in the Eastern area of the Kingdom of Saudi Arabia from April to May 2020, were thoroughly reviewed. The patients were divided into seven groups based on their ethnicities (Saudi, Egyptian, Nepali, Filipino, Pakistani, Bangladeshi and Indian). The differences in the clinical findings, laboratory data and radiological manifestations between these groups were statistically analysed.

Results: The study included 210 COVID-19 patients from seven ethnic groups (Saudi, Egyptian, Nepali, Filipino, Pakistani, Bangladeshi and Indian). Comorbidities were reported among 60.9% of patients, which were significantly higher among Filipinos at 73.3%. Dyspnoea was prevalent in the Saudi and Pakistani groups, while hypoxaemia was prevalent in the Indian group (40%). In terms of laboratory assessment, Bangladesh patients had the highest median of serum ferritin and lactate dehydrogenase (LDH) levels with a significant P value ($<.001$), while Saudi patients had the highest median of C-reactive protein (CRP) levels with a significant P value ($<.001$). According to computed tomography (CT) findings, structural destruction was the most common finding in bilateral parenchymal affection among 88.6% of patients. Filipinos and Bangladeshis had the highest morbidity rates.

Conclusion: There were great variations in clinical, radiological and even laboratory findings among different ethnic groups of COVID-19 patients.