

Epidemiological Characteristics of Novel Covid-19 Waves Among Patients Registered in Benha University Hospital, 2020-2021.

Abstract

Background: COVID-19 is a global pandemic spread all over the world with 315,345,967 confirmed cases and causing over 5,510,174 deaths till the mid of Jan 2022. Objective: This is to assess differences between the first and second waves and to determine risk factors of susceptibility and severity of COVID-19 infection. Methods: a retrospective study was conducted on 206 patients with COVID-19, confirmed with RT-PCR in Benha University Hospital. Medical records were reviewed for socio-demographic characters, co-morbidities, and investigations while data about preventive measures and healthy behavior, complications, recurrence, and vaccination status were completed by contacting patients by telephone. Results: Patients not committed to regular hand washing had 2.72 times risk higher than those who committed to regular hand washing to be isolated in hospital (OR=2.72 CI; 1.44-5.13; $p<0.01$), while patients not committed to the regular wearing of the mask had 1.91 times risk higher to be isolated in hospital than those who committed to it (37.3% vs. 23.7%) respectively (OR=1.91, CI; 1.02-3.60; $p<0.05$). Co-morbidities such as Cardiac diseases, hypertension, and diabetes mellitus were significantly associated with increased severity of COVID-19 infection. There was a strong positive correlation between the length of hospital stay and the duration of cigarette smoking ($p<0.01$). Conclusions: smoking, presence of co-morbidities, and decreased commitment to preventive measures were significant risk factors of increased susceptibility and severity of COVID-19 infection.

Key-Words: Benha- COVID-19 – epidemiology - risk factors.

Introduction

World health Organization (WHO) had defined COVID-19 as a global pandemic on March 11, 2020⁽¹⁾. Africa confirmed its first case in Egypt on Feb 14; 2020⁽²⁾, while the second wave began in Egypt on November 26; 2020 till the end of March 2021⁽³⁾.

Many safety instructions were declared to reduce risk of COVID-19 transmission. As washing hands regularly and thoroughly with soap and water for at least 20 seconds or with at least 60% alcohol based hand rub sanitizer⁽⁴⁾, covering mouth and nose with a flexed elbow or tissue when coughing and sneezing (cough etiquette)⁽⁵⁾, maintain social distancing (maintain at least 1 meter or 3 feet distance between yourself and anyone) and avoid close contact with people who were sick, avoid touching eyes, nose and mouth⁽⁶⁾ and stay home and isolate yourself from others if you feel sick⁽⁷⁾

The corona virus infection-2019 (COVID-19) became clinically manifested in a broad range from mild symptoms to life-threatening multi-organ failure (MOF)⁽⁸⁾.

Assessment of severity of COVID-19 patient confirmed with RT- PCR is simplified as mild, moderate, severe and critically ill cases. Mild case was usually presented with symptoms of common cold. While moderate case usually showed pneumonia without hypoxia. Severe cases were presented with pneumonia with hypoxia responding to oxygen therapy. While critically ill case was presented with pneumonia with hypoxia but not responding to oxygen therapy and /or organ dysfunction ^(9,10) .