

Mortality risk factors among hospitalised COVID-19 patients

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ABSTRACT

Introduction: COVID-19 is an acute viral infection that mainly affects the respiratory system leading to mortality. Therefore, positive COVID-19 patients may require intensive care unit (ICU) admission in severe cases. Many factors are thought to exacerbate the symptoms of COVID-19 resulting in increased mortality, smoking, hypertension and type 2 diabetes mellitus (T2DM) are on the top of these factors. **Objective:** This study was designed to detect the strength of association between death rate among COVID-19 ICU admitted patients and being smokers, type 2 diabetes mellitus (T2DM), or hypertension. **Materials and methods:** A cross-sectional study was conducted. A sample of 302 patients included all COVID-19 patients admitted to the ICU of the central hospital in Amman, Jordan, in July 2021. **Results and conclusion:** Of the total 302 patients, 171 were smokers. the death rate among smokers (67.25%) was significantly higher than (53.43%) among non-smokers $X^2= 5.966$, $p=0.0145$. We found that 118 cases had T2DM. the death rate among patient with T2DM (62.71%) was insignificantly higher than (60.32%) among non-diabetic patients $X^2= 0.172$, $p=0.67$. Of the 130 COVID-19 patients with hypertension, the death rate was (70.76%) significantly higher than (54.1%) among those without hypertension $X^2= 8.70$, $p=0.0031$. Moreover, by using the OR and 95% CI. Interestingly, we found that smokers were almost two times significantly more prone to death than nonsmokers (OR=1.79, 95%CI:1.12 - 2.86, $p=0.015$). Also, patients with hypertension were two times significantly more prone to death than normotensive patients, (OR=2.06, 95% CI: 1.27 - 3.33, $p=0.0034$). On the other hand, T2DM showed an insignificant risk factor (OR=1.11) for death. 95% CI: 0.687- 1.78, $p=0.6780$. Smoking and hypertension act as significant risk factors to increase mortality in COVID-19 patients.

Keywords: Risk factors, Hospitalised COVID-19, Death, Jordan