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ASSOCIATION OF SMOKING AND SEVERITY OF COVID-19 INFECTION AMONG 5,889 PATIENTS IN MALAYSIA: A MULTI-CENTER OBSERVATIONAL STUDY

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Abstract

Objective: This study aims to investigate the association between smoking and the severity of COVID-19 infection during the initial wave of this pandemic in Malaysia . Methods: This is a multi-center observational study using secondary hospital data collected retrospectively from February 1, 2020, until May 30, 2020. Clinical records of all real-time polymerase chain reaction (RT-PCR)-confirmed COVID-19 cases with smoking status, co-morbidities, clinical features, and disease management were retrieved. Severity was assessed by the presence of complications and outcomes of COVID-19 infection . Logistic regression was used to determine the association between COVID-19 disease severity and smoking status. Results: A total of 5 , 889 COVID-19 cases were included in the analysis. Ever smokers had a higher risk of having COVID-19 complications, such as acute respiratory distress syndrome (odds ratio [OR] 1.69; 95% confidence interval [CI] 1.09-2.55), renal injury (OR 1.55; 95% CI 1.10-2.14), and acute liver injury (OR 1.33; 95% CI 1.01-1.74), compared with never smokers. However, in terms of disease outcomes, there were no differences between the two groups. Conclusion: Although no significant association was found in terms of disease outcomes, smoking is associated with a higher risk of having complications owing to COVID-19 infection . © 2022 The Author(s)

Author keywords

complications; COVID-19; disease outcome; Malaysia ; severity ; Smoking

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