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LETTER

Prevalence of Hypertension and Diabetes in Severe COVID-19: A Cross-Sectional Study from Single Center, Kabul [Letter]

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Dear editor

Clinical manifestations of COVID-19 range from asymptomatic or mildly symptomatic to death, particularly in people with comorbidities. The paper by Mohammad Zobair Wardak et al, entitled Prevalence of Hypertension and Diabetes in Severe COVID-19: A Cross-Sectional Study from Single Center, Kabul, is really interesting to be read and review for further discussion.[1] A similar study topic was previously reported by Deravi et al[2] in a systematic review, which also showed that the most frequent comorbidities in patients with severe COVID treated in the intensive care unit (ICU) were diabetes mellitus and hypertension. Diabetes can cause neutrophils and T cells to operate less well, which can lead to secondary infections by downregulating the humoral and innate immune systems.[2] Similarly, it was shown that hypertension was linked to several comorbidities, which raises the possibility and severity of infections.[2] However, a meta-analysis involving 310,494 patients and assessing the relationship of many variables showed that neither hypertension nor diabetes, nor the combination of the two, was associated with COVID-19 severity.[3,4] That study found a significantly increased risk of death among COVID-19 patients with older age, hypertension, and diabetes. However, the multivariate analysis revealed that only diabetes was independently related to a higher death rate.[3,4]

So, in the study reported by the research group of Wardak et al, performed in Kabul, apart from the well-performed and discussed univariate analysis, other further statistical analyses, namely bivariate and multivariate analyses, could be considered to be carried out. The authors could probably prove that hypertension and diabetes are significantly associated with the severity of COVID-19 in patients in Afghan-Japan Hospital, Kabul, with these two analyses, by showing the 95% confidence interval (95% CI). They could also consider including the variables of age, degree of hypertension, and type of diabetes in bivariate and multivariate analyses to achieve better results and conclusions from the study. Thus, it is hoped that the results could be more useful for proper patient treatment at the center. In addition, further information on the risk profile of patients with severe COVID-19 can be helpful in personalized treatments and better decision-making for these vulnerable patients. Overall, we congratulate the authors and their research group for providing valuable additional information regarding comorbidities in severe COVID-19 cases.

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Disclosure

The authors report no conflicts of interest in this communication.

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