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Letter to the Editor

Comment on “Association of obesity with illness severity in hospitalized patients with COVID-19: A retrospective cohort study”


To the Editor,

Recently, we read with great interest the study published in Obesity Research & Clinical Practice [1]. In this retrospective study, the authors analyzed the association between obesity and the prognosis of patients with coronavirus disease 2019 (COVID-19). After adjusting for possible confounding factors, the authors found that obesity was associated with a high risk of ICU admission and intubation. After reading this study, we noticed the following issues need to be pointed out.

First, we noticed that patients included in this study were only divided into two cohorts: obese (body mass index (BMI ≥ 30 kg/m²)) and non-obese (BMI < 30 kg/m²). However, it needs to be emphasized that it needs to be emphasized that this definition will consider underweight patients (BMI < 18.5 kg/m²) as non-obese patients. In clinical practice, BMI could distinguish not only obese and normal weight patients, but also underweight patients. Previous study has revealed that underweight patients have a worse prognosis compared with normal weight patients [2]. Similarly, evidence from predecessors also exhibited that compared with normal weight COVID-19 patients, underweight patients are at higher risk of acute kidney injury, mechanical ventilation, and death [3,4]. The above-mentioned evidence indicate that underweight patients are a special vulnerable group and should receive sufficient attention to improve the prognosis. Thus, it seems inappropriate to define underweight and normal weight patients as a non-obese group. It is recommended to conduct a subgroup analysis to further explore whether underweight is associated with higher morbidity.

Second, it should be pointed out that the severity of COVID-19 has the following four categories: mild, moderate, severe, and critical [5]. Undoubtedly, higher severity of COVID-19 disease is related to poor prognosis. Additionally, previous studies have indicated that obesity is associated with higher severity of COVID-19 disease. Nevertheless, the authors only described that COVID-19 patients were included, and did not describe the severity of COVID in detail. Under these circumstances, it is challenging to judge whether the poor prognosis is caused by obesity or the severity of the COVID-19 disease? Or is there a synergistic effect between the two factors, which leads to poor prognosis?

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Conflicts of interest

None.

Author agreement

All authors agree the publication of this article.

Ethical statement

We have read and have abided by the statement of ethical standards for manuscripts submitted to the Obesity Research & Clinical Practice.

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