Obesity and COVID-19: A Forgotten Relationship

Obesidade e COVID-19: Uma Relação Esquecida

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Laires PA *et al* evaluated the proportion of the Portuguese population at the highest risk for severe COVID-19, according to age and comorbidities.[1] Although the authors have made a very complete analysis, we consider that obesity should have been included in this study. Obesity is often neglected as a comorbidity, despite being the cause of many other diseases such as diabetes or hypertension. In Portugal, 38.9% of the adult population is overweight and 28.7% is obese, representing one of the most frequent comorbidities in patients with COVID-19.

Recent studies have shown that obese patients are at increased risk of contracting SARS-CoV-2, and that higher body mass index (BMI) is associated with higher probability of a positive test result.[2,3] Moreover, a growing body of evidence shows that obesity is associated with increased disease severity among patients with COVID-19. Recent systematic reviews demonstrated that obese COVID-19 patients present higher rates of hospitalization,[2] longer hospital stays and worse clinical outcomes.[2,3] In fact, these patients are at higher risk of intensive care unit admission, acute respiratory distress syndrome and invasive mechanical ventilation requirement. Additionally, higher mortality rates have been reported in this population. All these serious complications are exacerbated in older age groups and when other common chronic comorbidities such as diabetes, renal or cardiovascular diseases are present.[2,3]

Interestingly, a positive association between visceral adipose tissue (VAT) and worse prognosis was found - patients with severe COVID-19 disease show significantly higher VAT accumulation when compared to non-severe cases.[2,3]

Even though several potential treatments for COVID-19 are being considered, the optimal approach is still uncertain. Treatment is currently based on limited data and is rapidly evolving as the results of ongoing trials are being published. Moreover, data on drug efficacy in the subgroup of patients with obesity are lacking.

Even though the most promising approach for limiting this pandemic is a vaccine to prevent SARS-CoV-2 infection, obesity has been associated with poor vaccine-induced immune responses. Therefore, the effectiveness of SARS-CoV-2 vaccines in this subpopulation should be particularly evaluated.[4]

In conclusion, obesity must be recognized as an independent risk factor for COVID-19 severity. It is crucial to protect the more susceptible individuals by implementing strategies to manage global pandemic of obesity more efficiently.

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