


COVID-19 Ventilatory Phenotypes and Obesity: Is There a Relationship?

Hugo Costa ^{1,2}, Miguel Jacob^{2,3},
Rafaela Pereira^{2,4}, Roberto Calças^{2,5},
and Daniel Nuñez⁶

TO THE EDITOR: Obesity has been recognized as an independent risk factor in other viral infections such as influenza A virus subtype H1N1 (1). Although data are scarce at this stage, there is also an unexplained increased prevalence of obesity in patients infected with SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2) admitted to the intensive care units (2).

In SARS-CoV-2 pneumonia, two different ventilatory phenotypes have been described (3). The L phenotype (Low) presents with low elastance and high compliance, low ventilation/perfusion ratio, and decreased

recruitability; in this case, the factor limiting pulmonary function will be perfusion. Moreover, the H phenotype (High) presents with high elastance and low compliance, pulmonary shunts, and high recruitability; the factor limiting pulmonary function will be ventilation (3).

In our intensive care unit, we have observed an unexplained increased prevalence of patients with obesity and SARS-CoV-2 pneumonia with ventilatory phenotype H (acute respiratory distress syndrome-like). From the ventilatory point of view, the patients need high positive end-expiratory pressure and respond well to recruitment maneuvers.

The incidence of acute respiratory distress syndrome is increased in patients with obesity (4). To date, there are no studies that mention the association between the ventilatory phenotypes of COVID-19 and obesity. We suggest that understanding these relationships is crucial and clinically important in the treatment of patients with obesity and COVID-19 pulmonary complications. We urge authors to report ventilatory

phenotypes in their studies of patients with obesity and pulmonary complications of COVID-19.

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¹ Cardiology Department, Faro, Algarve, Portugal. Correspondence: Hugo Costa (hugoalexcosta@sapo.pt) ² Algarve University and Hospital Center, Faro, Algarve, Portugal ³ Anesthesiology Department, Faro, Algarve, Portugal ⁴ Internal Medicine Department, Faro, Algarve, Portugal ⁵ Nephrology Department, Faro, Algarve, Portugal ⁶ Intensive Care Medicine Department, Algarve University Hospital Center, Faro, Algarve, Portugal.

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