Reviewer’s report

Title: An increased respiratory drive accounts for the severity of dyspnea in systemic sclerosis

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Reviewer: Takashi Nishino

Reviewer’s report:

This manuscript describes a study in which the authors have measured mouth occlusion pressure (P0.1) and ventilatory variables during resting ventilation and CO2 rebreathing in patients with systemic sclerosis. They showed that the values of P0.1 provide an accurate outcome parameter as an initial evaluation of mild dyspnea and that the increased respiratory drive to hypercapnia can account for the severity of dyspnea in patients with systemic sclerosis. As far as it goes the study is well designed and very clearly presented. I would have only a few comments.

1. In Table 1, the values of Paco2 are shown but the values of Pao2 are not shown. The values of Pao2 should be listed in the Table to estimate the hypoxic drive during resting ventilation. Since the authors measured mouth occlusion pressure during resting ventilation while breathing room air, the values of Pao2 might have a significant implication in interpretation of the respiratory drive.

2. It would be better if the authors could measure changes in intensity of dyspnea during CO2 rebreathing and examined the relationship between the dyspnea intensity and respiratory chemosensitivity. This reviewer believes that this relationship would strengthen your findings. Perhaps, the authors may discuss the lack of these data as the limitation of the study in the Discussion section.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.