



## LETTER TO THE EDITOR

### Reply to the Letter to the Editor: Takotsubo syndrome in the setting of COVID-19: Pathogenetic and diagnostic implications



### Resposta à Carta ao Editor: Síndrome de Takotsubo no contexto da COVID-19: implicações patogénicas e diagnósticas

We appreciate the interest shown in our case report published in the Portuguese Journal of Cardiology.<sup>1</sup> We have carefully read the comments made and would like to make the following considerations.

Through a brilliant exposition of the pathophysiological factors involved in the development of Takotsubo syndrome (TTS), Yalta et al. posed a series of questions related to the reported case that could not be initially presented due to limited space. Relating to the presence of concomitant inflammatory factors that could favor the development of TTS, widely described by Yalta et al.,<sup>2,3</sup> the patient only had hypoxemia (basal saturation at admission of 82%) secondary to bilateral SARS-Cov-2 pneumonia, which required supplemental oxygen with a high-flow device. There was no need for bronchodilator therapy. However, in addition to advanced age as a frailty criterion, no other stress factors were documented, such as autoimmune diseases, serious comorbidities; and acute phase reactants were not significantly altered. Hypoxemia resolved with the implemented treatment, without the need for hospitalization in the intensive care unit. Although in many cases, the attribution of TTS to SARS-Cov-2 infection with favorable evolution may be unlikely, in our case there are no other associated triggering factors that contributed to its development.

Regarding whether it is mandatory to make the diagnosis of TTS using invasive tests, as described by Yalta et al., since in a large percentage of patients TTS presents characteristics indistinguishable from a STEMI, emergent coronary angiography enables the detection and treatment of possible acute coronary occlusions in an appropriate time window. Furthermore, since the main feature of TTS is usually a regional motility disturbance that extends

beyond the vascular distribution of an epicardial vessel,<sup>2</sup> we believe that a comprehensive evaluation of the relationship between motility disturbances and the course of coronary arteries, by performing coronary angiography and ventriculography in a single medical act, continues to be the cornerstone of the TTS diagnosis.<sup>4</sup>

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### Conflicts of interest

The authors have no conflicts of interest to declare.

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