

"Reply to "Anticoagulant treatment is associated with decreased mortality in severe coronavirus disease 2019 patients with coagulopathy".

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To the editor:

We have just read with interest the article recently published in your Journal and titled "Anticoagulant treatment is associated with decreased mortality in severe coronavirus disease 2019 patients with coagulopathy" by Tang N. et al (1). In this article, it is suggested that those patients with COVID-19 that accomplish the Sepsis-Induced Coagulopathy (SIC) criteria, and receive anticoagulant treatment would present a reduction of mortality rates. It is well known that both shock and disseminated intravascular coagulation (DIC) are the two major causes of organ dysfunction in sepsis (2). Furthermore, DIC is a strong predictor of mortality in patients with sepsis, independently of the severity of sepsis (2).

In 2017, the International Society of Thrombosis and Haemostasis (ISTH) developed a Sepsis-Induced Coagulopathy (SIC) score. It was defined for clinical practice to facilitate early recognition of DIC in the setting of the sepsis, and to better identify those patients that are candidates for anticoagulation therapies (3). The SIC score criterion consider using the platelet count (a value lower than 100x10³/mm³ platelets), PT ratio and four items of the total Sequential Organ Failure Assessment (SOFA) score that defines organ dysfunction: respiratory SOFA (PaO2/FIO2), cardiovascular SOFA (Hypotension), hepatic SOFA (bilirubin) and renal SOFA (creatinine or urine output). Therefore, the existence of thrombopenia from the SOFA score is not taken into account for the SIC score as it is already included as a criterion.

In the article published in your Journal, Tang et al mention that "the SOFA score was developed by an international group of experts to describe the time course of six organ dysfunction using a limited number of routinely measured variables". Considering our above explanation, using together for the patient's mortality evaluation the total SOFA score with its total six variables (which includes the existence of thrombopenia) and the SIC score (which includes the platelet count as per the CID criteria) would make to count the same item twice for a patient.

We consider that the variables included in the study are not well described in the paper since the only reference in the article by Tang N. et al is to the original SOFA score. Furthermore, it is

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possible that the weight of thrombopenia in the SIC score has been magnified, since thrombopenia is a criterion included in both scores (SOFA and SIC) as individual items. As thrombopenia has been described as a frequent finding in COVID-19 (4), it could be a consequent bias that limits the interpretation of the study.

Authors declare that there are no financial, labor or other relationships that may constitute a conflict of interest with respect to this work. That is to say, we have not received "benefits in money, goods, hospitality or subsidies" from any source that has a particular interest.

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