



Letter to the Editor

Response to letter from Madias regarding our article “Admission heart rate and in-hospital course of patients with Takotsubo syndrome”



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To Dr. Madias,

We thank you for your stimulating letter [1], commenting on our article recently published in the *Journal* [2].

Tracking heart rate (HR) changes after admission represents an attractive matter of investigation. Indeed, it can be presumed that persistently elevated HR in patients with Takotsubo syndrome (TTS) during hospital stay may represent an unfavorable indicator, similarly to persistent ST-segment elevation [3]. Unfortunately, some limitations apply [1] and beta-blockers administration in the early phases could represent a main confounder in a population initially treated mostly as having acute coronary syndrome. Nevertheless, this is an interesting issue to be addressed in future prospective studies.

We observed 11 patients (5%) presenting with HR < 60 beats per minute, and none had developed bradycardia after admission. However, time from symptoms onset to presentation largely varies, and it cannot be excluded that, as described in animal models of subarachnoid hemorrhage [4], bradycardia at hospital arrival may represent a following step in the pathogenic pathway of TTS.

Finally, a more accurate and close monitoring of the autonomic sympathetic nervous system activity is needed to deeply understand the mechanisms involved in TTS pathophysiology, and surely the suggested new available technology [5] would be helpful. However, for this purpose, the long delay with which TTS patients usually come to medical attention after the onset of symptoms remains source of problems, preventing us from witnessing the very early events and leaving us to record mainly later clinical manifestations. Unfortunately, no technology can shade light on this “blind phase” of TTS.

Conflict of interest

The authors report no relationships that could be construed as a conflict of interest.

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