Dear Sir,

We thank Dr. Madias for his interest in our work [1] in which we tried to illustrate a clear relationship between neurologic and cardiologic fields of research.

We totally agree that the brain and heart are linked in several affections, especially in Takotsubo syndrome (TTS). In this disease, stroke could be either the cause or the consequence of TTS. In our study published in European Neurology [2], we assumed that ischemic stroke or epileptic events affecting specific brain regions could induce a massive catecholamine release, as suggested by other authors [3]. We acknowledge that we did not investigated blood catecholamine levels because of the retrospective nature of the study. Therefore, further studies are needed to assess the pathophysiological hypotheses.

It appears to be crucial to consider patients from a global perspective, and one of the most significant illustrations is the link between the heart and the brain in the management of cerebrocardiovascular diseases. For example, a direct link between damage in specific regions of the brain, such as the insular cortex, and the incidence of cardiac death has been suggested [4]. In terms of perspectives, it would be interesting to study the clinical and preclinical inter-relation between the brain and heart in ischemic processes. To achieve this goal, we are currently developing a strong collaboration between researchers and doctors from both the cardiologic and neurologic fields in joining research teams at the University of Burgundy, France. Such a collaboration appears to be promising to improve healthcare of patients suffering an ischemic stroke or a myocardial infarction by studying the nature of heart and brain interactions during ischemic processes and how their respective functioning are affected.

Disclosure Statement

The authors declare no conflicts of interest.

References