Letter to the Editor

Neurohormonal treatment in tako-tsubo cardiomyopathy precipitated by COVID-19

Tratamiento neurohormonal en miocardiopatía de tako-tsubo precipitada por COVID-19

To the Editor,

We read with interest the case report by Oyarzabal et al.1 on tako-tsubo cardiomyopathy precipitated by the novel coronavirus disease 2019 (COVID-19). The reported case study should raise awareness among clinicians regarding the diversity of cardiovascular complications associated with COVID-19, which now includes tako-tsubo cardiomyopathy. Due to the rarity of this complication, it may be useful to document the treatment and clinical outcomes of such patients. Although Oyarzabal et al.1 mentioned the use of neurohormonal treatment in their patient with tako-tsubo cardiomyopathy, the specifics of the regimen were not detailed.

Indeed, the evidence concerning the use of neurohormonal treatment in patients with tako-tsubo cardiomyopathy is thus far inconclusive. This treatment approach usually comprises beta-blockade or renin-angiotensin system inhibition. However, beta-blocker therapy has not been found to be effective in preventing the recurrence of tako-tsubo cardiomyopathy. In a systematic review and meta-analysis of the incidence and correlates of tako-tsubo cardiomyopathy recurrence, it was reported that the recurrence rate was independent of the clinical use of a beta-blocker.2 In addition, over 30% of the 1750 patients in the International Takotsubo Registry study were receiving beta-blockers at the time when tako-tsubo cardiomyopathy developed.3 The study also reported no evidence of a mortality benefit at 1 year with the use of a beta-blocker upon discharge after tako-tsubo cardiomyopathy admission. Moreover, in a retrospective analysis of 2672 patients with tako-tsubo cardiomyopathy, 423 of whom received beta-blocker therapy within the first 2 days of diagnosis, there was no significant association between the use of beta-blockers and 30-day in-hospital mortality.4 There is mixed evidence on the use of a renin-angiotensin system blocker in patients with tako-tsubo cardiomyopathy. As reported in the International Takotsubo Registry study, the use of an angiotensin-converting enzyme inhibitor or angiotensin receptor blocker was associated with a survival benefit at 1 year.5 However, a subsequent Mayo Clinic study that included 265 patients with tako-tsubo cardiomyopathy found that the use of an angiotensin-converting enzyme inhibitor at discharge was not a significant predictor of 1-year survival.6

It is nonetheless possible that the clinical outcomes associated with the use of neurohormonal treatment differ according to precipitating condition. Therefore, it would be useful for the authors to detail the treatment regimen of their patient, as well as the outcomes, to add to the literature regarding what treatments may or may not be valuable in tako-tsubo cardiomyopathy precipitated by COVID-19.

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