

Peer Review File

Article information: <http://dx.doi.org/10.21037/jxym-20-90>

Reviewer comments:

1. The authors present a case of VF due to a severe coronary vasospasm. Usually, Takotsubo syndrome (TTS) has been reported when a potentially responsible cause is not found in the lumen of the coronary tree. In this case we have a clear cause for the arrhythmia, so a TTS diagnosis is arguably. Of course, after some rounds of CRP, LV segmental abnormalities are the logical finding. This issue needs to be discussed (mid-ventricular secondary form of TTS or a TTS phenocopy).

Reply:

“Catecholaminergic imbalance appears to play a pivotal role for TSC occurrence, and reports of concurrency with coronary artery vasospasm have suggested possible common pathways.⁵⁻⁸”

“The exact pathophysiological mechanism of TSC is still unknown. Neuro-cardiac action with coronary artery vasospasm, like in the present case, may play a special role.⁸ The spectrum of TSC is wide and ranges from low to very high risk in the acute phase.”

2. The other important point here is after this working diagnosis what are the next steps in management.

Reply:

“Just after the procedures, still on the cath lab table, there were two new episodes of cardiac arrest (ventricular fibrillation and torsades de pointes ventricular tachycardia), once again promptly reverted. At the intensive cardiac care unit, about 24 hours later, she was already without invasive mechanical ventilatory support, inotropes nor vasopressors, with normal neurological status and no recurrence of arrhythmias.”

“The patient was discharged home at ninth day, with optimal medical treatment (aspirin, rosuvastatin, ramipril and diltiazem), without recurrence of adverse cardiac events. TTE performed four weeks later revealed complete reversal of initial mid-ventricular systolic dysfunction.”