

Letter to the Editor

Cardiomyopathies with an unclear etiology: fundamental diagnostic role of cardiac magnetic resonance imaging

Dear Editor,

We read with interest the article by Rotondi, et al¹ entitled "Recurrence of tako-tsubo syndrome, idiopathic dilated cardiomyopathy, and iterative ventricular tachycardia: just a fortuitous coincidence or a pathophysiological link?", which was published in the previous issue of European Review for Medical and Pharmacological Sciences.

The authors¹ presented a case of 65-year old woman with late recurrence of tako-tsubo syndrome (TTS), idiopathic dilated cardiomyopathy and prior iterative ventricular tachycardia. The diagnosis of TTS was established with transthoracic echocardiographic and angiographic imaging. Although, the patient is well-managed and this interesting case gives detailed information about the TTS, some comments may be of beneficial.

Takotsubo syndrome presents with a myocardial infarct-like clinical syndrome, elevated cardiac biomarkers and electrocardiographic changes. It is a cause of transient left ventricular systolic dysfunction, which tends to normalise approximately in a week². It is often preceded by stress or exacerbation of an existing medical condition and results in angiographically normal coronary arteries².

Patients with cardiac wall motion abnormalities, electrocardiographic changes and elevated cardiac biomarkers must be evaluated in detail to detect an exact etiology and manage specific treatment. Evaluating extensive cardiac wall motion abnormalities related to coronary vasospasm and myocarditis, which could extend single coronary distribution; and coronary spontaneous dissection, which could be seen especially in peri- and post-menopausal women related to hormonal disturbances, could be difficult^{3,4}. When etiology remains unclear, cardiac magnetic resonance (CMR) appears to be a useful imaging modality for documenting the extent of the regional wall motion abnormality and differentiating TTS from other cardiomyopathies (especially from ischemic cardiomyopathy)^{2,4}. On CMR imaging, myocardial infarction is characteristic in subendocardial late gadolinium enhancement (LGE), which extends variably transmurally to the epicardium, whereas TTS is characteristic in no or minimal LGE².

Cardiovascular magnetic resonance imaging is a safe, useful and noninvasive modality that can be used in assessing myocardial function. Compared with echocardiography and cardiac catheterization, CMR imaging is superior in detecting cardiac inflammation, edema, necrosis or fibrosis, which could help in differentiating and diagnosing cardiomyopathies especially in patients with multiple cardiac risk factors as in this case^{2,4}.

Determining the precise etiology of cardiac wall motion abnormalities will help in managing appropriate treatment, thus, avoiding patients from harmful medications and interventions⁵.

Conflict of Interest

The Authors declare that they have no conflict of interests.

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