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Cardiomyopathies: The Value of Cardiac Magnetic Resonance Imaging

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Dear Editor,

We read with great interest the article by Lee et al. [1] entitled 'Pheochromocytoma mimicking both acute coronary syndrome and sepsis: a case report'. These authors presented a case of pheochromocytoma mimicking both acute coronary syndrome and sepsis, and advised that pheochromocytoma should be considered as part of the differential diagnosis in a patient with symptoms suggestive of both acute coronary syndrome and sepsis. The patient was evaluated with transthoracic echocardiography, and a dilated left ventricular (LV) chamber without regional wall motion abnormality and preserved LV systolic contractility was observed. Some comments may be of interest.

Myocarditis is an inflammatory heart disease that may be caused by different pathogens. Viral pathogens are most frequently identified in endomyocardial biopsies. Most patients will recover without sequelae, but a subset of patients will progress to chronic inflammatory and dilated cardiomyopathy [2].

Stress-induced cardiomyopathy (Takotsubo cardiomyopathy) is a clinical syndrome of transient LV dysfunction, preceded by emotional stress or exacerbation of an existing medical condition. It presents with a myocardial infarct-like clinical syndrome, resulting in angiographically normal coronary arteries and a contractile pattern with hypokinesia of the apical segments [3, 4].

Pheochromocytoma is rare and has been documented to present atypically as myocardial ischemia, arrhythmias, or congestive heart failure. In patients with pheochromocytoma, transient cardiomyopathy with hypokinesia of the basal segments of the left ventricle and hyperkinesia of the apex (an inverted Takotsubo contractile pattern) can be observed [5].

Patients with elevated cardiac biomarkers and diffuse ST-T abnormalities on electrocardiography must be evaluated in detail to detect an etiology. Cardiovascular magnetic resonance imaging is a safe, useful, noninvasive modality that can be used in assessing myocardial function and tissue, differentiating and diagnosing cardiomyopathies in suspected myocardial diseases even without wall motion abnormality.

Establishing the exact etiology of elevated cardiac biomarkers and echocardiographic abnormalities will help in managing treatments, thus avoiding harmful medications and interventions.

References

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Editor's Note: The corresponding author of the paper in question declined to respond to this letter.