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Takotsubo Cardiomyopathy associated with occupational stress: a case report

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Introduction: Takotsubo Syndrome (TTS), also known as stress-induced cardiomyopathy, is an acute condition that mimics Acute Coronary Syndrome (ACS) but occurs in the absence of significant epicardial coronary artery obstruction. It predominantly affects postmenopausal women, often after intense physical or emotional stress, and is characterized by transient left ventricular systolic dysfunction. Clinical presentation includes chest pain, electrocardiographic changes, and elevated myocardial injury biomarkers, and in the acute phase, it is often indistinguishable from ST-segment Elevation Myocardial Infarction (STEMI). Early recognition is essential to avoid unnecessary invasive interventions and to guide appropriate management. **Case Description:** A 49-year-old woman with a history of chronic anxiety, occupational overload, and symptomatic supraventricular premature beats sought medical care due to mild, constrictive chest pain radiating to the jaw and arm. She was hemodynamically stable, with blood pressure and heart rate within normal limits. Electrocardiography showed mild ST-segment elevation, accompanied by a significant increase in troponin levels (1,900 ng/L; reference value < 14 ng/L). Given the suspicion of ACS, emergency coronary angiography was performed, revealing the coronary arteries without obstructive lesions. Ventriculography demonstrated typical apical ballooning of the LV, consistent with the classic morphology of TTS. The patient had been previously using metoprolol and propafenone. Clinical treatment was initiated with bisoprolol 2.5 mg, ramipril 2.5 mg, rosuvastatin 10 mg, eplerenone 25 mg, and alprazolam 0.5 mg. She remained hospitalized for three days in the Intensive Care Unit (ICU) with clinical stability, followed by two additional days in a general ward. Prior to discharge, cardiac magnetic resonance imaging revealed mild hypokinesia of the mid-LV segments with associated edema, minimal necrosis with non-ischemic pattern myocardial fibrosis, and mild global systolic dysfunction. The patient reported mild exertional fatigue in the initial days but showed good clinical progression with motor physiotherapy and multidisciplinary follow-up until discharge. **Conclusion:** The present case illustrates the diagnostic complexity of Takotsubo cardiomyopathy and its close resemblance to acute coronary syndromes, particularly STEMI. The role of emotional and occupational stress as a potential triggering factor is highlighted, reinforcing the importance of a multidisciplinary approach. Cardiac magnetic resonance imaging proved to be a valuable tool for diagnostic confirmation, prognostic assessment and therapeutic decision-making.

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