

Takotsubo Cardiomyopathy related to Pheochromocytoma or Other Etiology Should Be Considered as Similar

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To the Editor:

Choi et al.¹⁾ compared 20 patients with definite pheochromocytoma and various cardiac manifestations to 20 controls with Takotsubo after intense emotional stress. However, the usual diagnostic criterion for Takotsubo cardiomyopathy is self-improvement and (complete or near complete) correction of motion abnormalities. Did the patients have to demonstrate this correction to be included in the Takotsubo group? Furthermore, the inclusion of only 20 patients in the control group during the relatively long retrospective study lasting from 2002 to 2013 is unusual. Accordingly, Takotsubo cardiomyopathy is frequently compared to pheochromocytoma. Was there an attempt to pair both groups? Additionally, I would like to know how many patients with pheochromocytoma eventually exhibited atypical Takotsubo echocardiographic patterns.

However, my main concern is that I think they compared two groups with similar diseases, despite a few differences in QT and left ventricular mass measurements. Pheochromocytoma and intense emotional stress share a surge in catecholamines as the main mechanism for Takotsubo induction.²⁾ Consequently, one should be careful when comparing Takotsubo following epinephrine injection, emotional stress, bronchodilator inhalation, and extreme dyspnea. Entangled mechanisms leading to Takotsubo cardiomyopathy have

already been acknowledged.²⁾ Indeed, much effort is needed to determine the diagnostic criteria differentiating Takotsubo from acute anterior myocardial infarction in order to prevent invasive coronary angiography involving iodine products and potentially deleterious pharmacological treatments. This should include electrocardiograms (with electrical alternance and QT prolongation), echocardiography (symmetric wall motion anomaly, right ventricular impairment), biological index (minimal troponin release compared to the extent of myocardial akinesis), cardiac magnetic resonance (valuable accuracy but difficult to perform urgently in unstable patients),³⁾ and obviously clinical findings.

References

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