

Stress Cardiomyopathy and Health Inequities: Lessons from the Global South

Plácido Argüelles Delgado  ¹*

¹Department of Anaesthesiology and Intensive Care Medicine, Medical University of Graz, Auenbruggerplatz 5, A-8036, Graz, Austria

*Correspondence: drdelgado@me.com



ABSTRACT

Takotsubo cardiomyopathy (TCM), also known as "broken heart syndrome," is a transient cardiac dysfunction typically triggered by emotional or physical stress. Although it has been extensively described in high-income countries, its recognition in low- and middle-income countries (LMICs) remains limited. The recently reported case from the Global South highlights how, even in the absence of advanced technologies such as cardiac MRI or 3D echocardiography, the combination of clinical acumen and basic diagnostic tools, including ECG, echocardiography, and coronary angiography, can lead to accurate diagnosis and favorable patient outcomes. Beyond its clinical aspects, this case emphasizes the psychosocial dimensions of TCM, especially its disproportionate impact on women and its association with emotional stressors in resource-constrained environments. The report underlines the urgent need to increase awareness, integrate gender-sensitive perspectives in acute cardiovascular care, and strengthen health systems to address stress-related cardiac conditions that may otherwise remain underdiagnosed.

Keywords. Takotsubo cardiomyopathy; broken heart syndrome; global health; stress-induced cardiomyopathy; cardiovascular equity; gender medicine.

Dear editor

Takotsubo cardiomyopathy (TCM), once considered a clinical rarity, has emerged as a compelling intersection of cardiology, psychosocial stress, and gendered medicine. The case presented by Carbonell González et al.¹ offers more than a medical diagnosis—it reflects clinical practice in resource-limited settings, and serves as a reminder of the broader social context in which cardiovascular diseases emerge.

The authors' ability to diagnose and manage a complex syndrome like TCM, even in the absence of advanced technologies such as cardiac MRI or 3D echocardiography, underscores the continued relevance of clinical acumen, basic imaging, and structured protocols. With a standard ECG, transthoracic echocardiography, and coronary angiography, the team was able to identify a transient left ventricular dysfunction mimicking acute coronary syndrome, complicated by apical thrombus, and ultimately guide the patient to full recovery.

This case is emblematic of medicine in the Global South—not due to any regional specificity of Takotsubo syndrome itself, but because of the realities it exposes: stress-related cardiovascular illness, underdiagnosed female cardiac presentations, limited access to high-cost diagnostics, and an urgent need for system-level equity in critical care.

Indeed, while more resources might have enabled extended follow-up, thromboembolic risk stratification, or deeper molecular insight, the clinical success in this case lies precisely in its doability—it is a model for what can be achieved in constrained contexts without compromising quality of care.

Takotsubo cardiomyopathy remains underrecognized in low- and middle-income countries (LMICs), partly due to its mimicry of acute coronary syndromes and partly due to systemic underreporting. However, its stress-triggered nature and its disproportionate impact on postmenopausal women suggest that it may be more prevalent than current data indicate—especially in communities facing high emotional burdens and weak health infrastructures^{2–4}.

TCM should also be considered when acute neurological illnesses are associated with hemodynamic instability, unclear causes, especially subarachnoid hemorrhage (SHA) secondary to ruptured intracranial aneurysms, which occurs in 0.8–30% of such cases. Cardiac failure, due to TCM, in context with SHA has been found to increase the probability of dying in the hospital and more disability after discharge.⁵

This report thus does more than inform; it inspires. It encourages us to look beyond the electrocardiogram and into the psychosocial realities of our patients. It calls for the inclusion of emotionally triggered pathologies in the cardiovascular curriculum and underlines the importance of gender-aware diagnostics in acute care^{6–7}.

At BioNatura Journal, we welcome contributions that bridge the gap between science and context—cases that do not simply illustrate disease, but expose its entanglement with life. This case does precisely that. It reminds us that clinical excellence is not only a function of technology, but of observation, reasoning, and human connection.

CONCLUSIONS

This case exemplifies how clinical excellence can be achieved without advanced technology, reinforcing the importance of observation, reasoning, and contextualized patient care. It advocates for the integration of gender-aware and emotionally triggered cardiovascular pathologies into both diagnostic protocols and medical curricula.

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Additional information: Correspondence should be addressed to drdelgado@me.com

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