

Takotsubo cardiomyopathy: is it just “broken heart” syndrome or something more?

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Introduction: Takotsubo cardiomyopathy (TCM), also known as stress cardiomyopathy, or “broken heart” syndrome, occurs in the setting of catecholamine surge from an acute stressor. This syndrome mimics acute myocardial infarction in the absence of coronary disease. The classic feature of this syndrome is regional wall motion abnormalities with characteristic ballooning of the left ventricle. The etiology of the stressor is often physical or emotional stress. Echocardiography identification of wall motion abnormalities is crucial in diagnostic approach. Apical, typical type is most common, but some fewer common variants have been reported as well.^{1,2}

Case report: We will present 3 patients with unusual clinical presentation of TCM. The first patient had characteristic apical type with depressed mid and apical segments and hyperkinesis of the basal walls (apical ballooning). The second patient had reverse or inverted TCM with hypokinesis of the base with sparing of the midventricle and apex. This type is present in only 2.2 % of patients.¹ The third patient manifested as cardiogenic shock where echocardiography revealed typical TCM with left ventricular outflow tract obstruction, which caused reduced cardiac output and signs of sock. (Figure 1) All three patients were female and had initially significantly reduced global systolic function of the myocardium. One patient had secondary TCM due to malignancy, and the other two had primary TCM due to extreme emotional stress right before developing symptoms. In follow up period two of three patients had recovered completely in global systolic function and with no other cardiac complications. Control echocardiography for third patient has not yet been made.

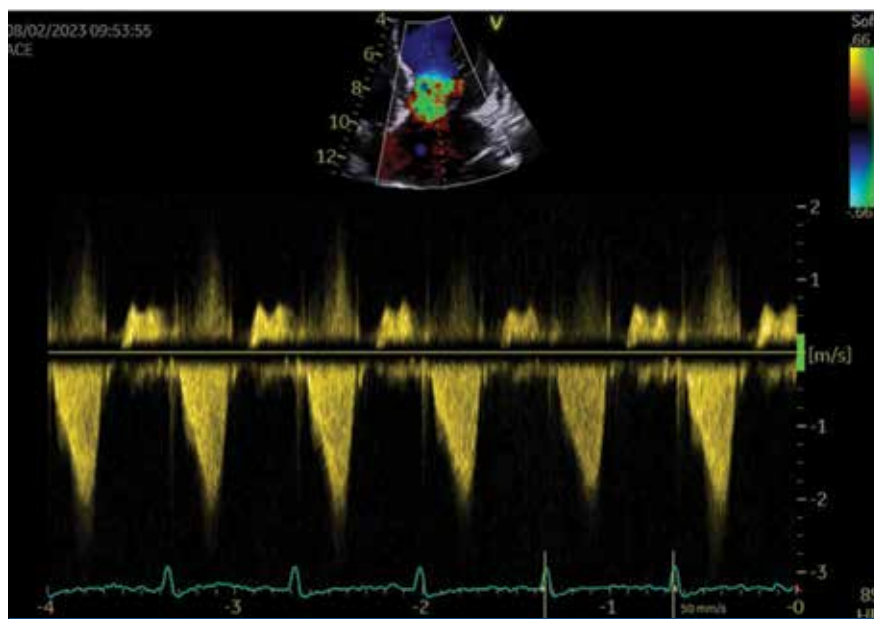


FIGURE 1. Apical four chamber view of left ventricular outflow tract obstruction.

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Conclusion: There are many aspects of TCM that are still not completely understood, and even though medical society knows about this phenomenon over 30 years, it is only recently gained increased recognition. Although TCM is thought to be a benign condition and most patients recover completely, the recent observation data suggest that cardiogenic shock and death rates are comparable to patients with acute coronary syndrome.¹ The aim of this abstract was to show less common clinical presentations of TCM and its complications.

LITERATURE

1. Ahmad SA, Brito D, Khalid N, Ibrahim MA. Takotsubo Cardiomyopathy. 2022 Mar 24. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-. PubMed: <https://pubmed.ncbi.nlm.nih.gov/28613549/>
2. Barmore W, Patel H, Harrell S, Garcia D, Calkins JB Jr. Takotsubo cardiomyopathy: A comprehensive review. *World J Cardiol.* 2022 Jun 26;14(6):355-362. <https://doi.org/10.4330/wjc.v14.i6.355>