

## REVIEW

## TAKOTSUBO SYNDROME

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**Abstract:** *Takotsubo syndrome, also known as Takotsubo cardiomyopathy, stress-induced cardiomyopathy, transient apical ballooning and broken heart syndrome, is a disease characterized by transient regional left ventricular systolic dysfunction. It is usually determined by emotional or physical stress. Even though it was thought to be a self-limiting condition, Takotsubo syndrome is now known to be associated with important short and long-term morbidity and mortality. Takotsubo syndrome affects 2-3% of all patients and 5-6% of female patients presenting with acute coronary syndrome (frequently women in the sixth decade). The Takotsubo syndrome cases are mostly preceded by acute emotional or physical triggers such as: family death, financial loss, anxiety, excessive work, domestic abuse, anxiety, fear for medical procedures, severe pain, sepsis, post-surgeries, and cancer. Diagnosis of Takotsubo syndrome can sometimes be difficult due to clinical manifestations similar to acute myocardial infarction. Myocardial necrosis biomarkers (Troponin I, Troponin T and Creatinin kinase) are elevated, with values comparable to those in patients with acute myocardial infarction. Transthoracic echocardiography usually shows akinetic or dyskinetic apical and mid-ventricular segments of the left ventricle compared to the hyperkinetic basal segments (“apical ballooning” aspect) and left ventricle systolic dysfunction. The positive diagnosis of Takotsubo syndrome is made on coronary angiography, normal or non-obstructive coronary artery disease.*

**Keywords:** *emotional stress, ballooning aspect, excessive catecholamines*

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## INTRODUCTION

Takotsubo syndrome, also known as Takotsubo cardiomyopathy, stress-induced cardiomyopathy, transient apical ballooning, and broken heart syndrome, is a disease characterized by transient regional left ventricular systolic dysfunction. Stress—either emotional or physical—usually determines it [1].

The term Takotsubo was described from a Japanese word meaning “octopus” according to the apical ballooning aspect of the left ventricle [2]. Patients present with chest pain, electrocardiographic changes, troponin elevation, anteroseptal-apical ballooning of the left ventricle with hyperkinetic basal segments and left ventricular dysfunction in the absence of obstructive coronary artery disease [1].