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Video Article

Beyond the Apex: Case of Takotsubo Cardiomyopathy with Diffuse T-Wave Inversions and Classic Echocardiography Findings

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ABSTRACT

Takotsubo cardiomyopathy is a transient cardiac syndrome that mimics myocardial infarction but occurs without coronary obstruction, often triggered by emotional or physical stress. We report a 70-year-old woman presenting with unusual diffuse T-wave inversions, classic apical ballooning on echocardiography and normal coronary arteries—hallmarks of stress-induced cardiomyopathy.

Keywords: Takotsubo cardiomyopathy; T-wave inversions; Ventricular hypokinesia

Case Details

A 70-year-old Caucasian female with a medical history of hypertension and hypercholesterolemia presented to the emergency department following the reported ingestion of approximately 6 to 7 ounces of "Mean Green" cleaning solution in a suicide attempt. The patient disclosed experiencing severe depression since her husband's passing and expressed a desire to join him, further compounded by recent stressors, including her grandmother's death and the need to travel to Canada. She reported symptoms including mouth numbness, sore throat, chest pain and nausea without vomiting[1].

Laboratory evaluation revealed a markedly elevated troponin level of 142 ng/L, while complete blood count, comprehensive metabolic panel, urine drug screen, serum ethanol, serum acetaminophen and thyroid-stimulating hormone were all within normal limits. Given the patient's chest pain, elevated troponin and ECG showing diffuse T-wave inversions **(Figure 1)**, an urgent bedside echocardiogram and cardiac catheterization were planned to evaluate for acute coronary syndrome or stress-induced cardiomyopathy[2].

Echocardiography demonstrated apical ballooning consistent with Takotsubo cardiomyopathy. Wall motion abnormalities were suggestive of stress-induced cardiomyopathy **(Figure 2)**. Left heart catheterization revealed essentially normal coronary arteries with moderate left ventricular dysfunction. Given the circumstances, the patient was placed on a 1013 hold for psychiatric evaluation and subsequently discharged to an

inpatient psychiatric facility with a prescription for carvedilol and outpatient follow-up arranged with a cardiologist[3].

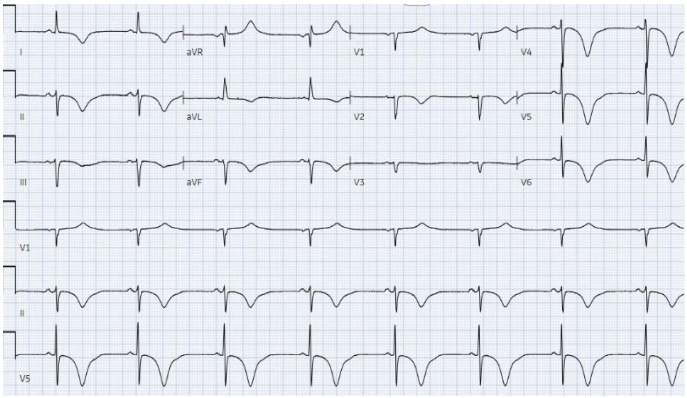

Figure 1: 12-lead ECG demonstrating sinus bradycardia with a heart rate of 47 bpm, prolonged QTc interval of 509 ms, left axis deviation and diffuse T-wave inversions noted in leads I, II, III, V2–V6.

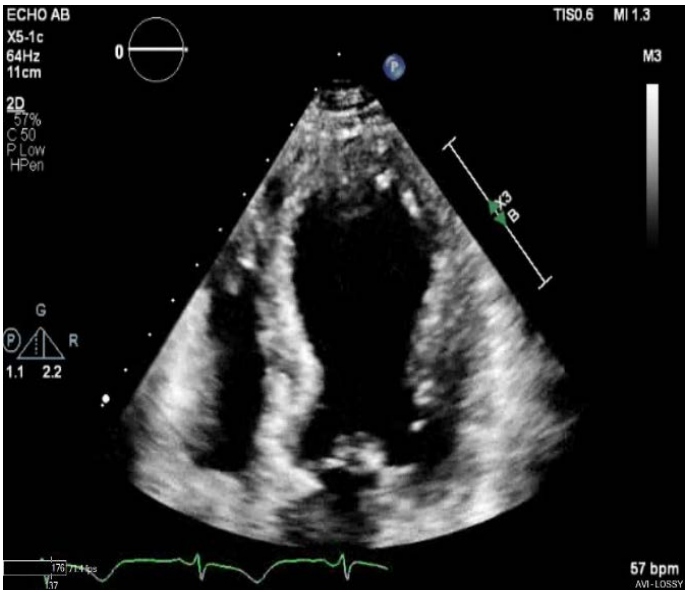

Figure 2: Transthoracic echocardiogram (apical four-chamber view) showing apical ballooning consistent with Takotsubo cardiomyopathy. Left ventricular systolic function is moderately reduced with an estimated ejection fraction of 36% to 40% and there is grade I (mild) diastolic dysfunction. Wall motion abnormalities are suggestive of stress-induced cardiomyopathy

Competing Interests

The author(s) have no competing interests to declare.

References

1. Sato H, Tateishi H, Uchida T, et al. Takotsubo-type cardiomyopathy due to multivessel spasm. In: Kodama K, Haze K, Hon M, eds. Clinical Aspect of Myocardial Injury: From Ischemia to Heart Failure. Tokyo, Japan: Kagaku Hyoronsha 1990:56-64.
2. Namgung J. Electrocardiographic findings in Takotsubo cardiomyopathy: ECG evolution and its difference from the ECG of acute coronary syndrome. Clin Med Insights Cardiol 2014;8:29-34.
3. Silva L, Pérez N, Giraldo V, Duarte A, Palomino G, Pacheco O. Echocardiographic findings in a patient with Takotsubo syndrome: importance of measurements beyond the ejection fraction. J Cardiol Curr Res 2018;11(2):95-98.