Case Report

Journal of Intensive Care and Emergency Medicine

Takotsubo's Cardiomyopathy Conundrum: A Case of Misdiagnosis

Leong Chong Hern*, Leong Zhao Hong and Syed Jamal

Emergency and Trauma Department, Hospital Selayang, Malaysia

***Corresponding author**
Leong Chong Hern, Emergency and Trauma Department, Hospital Selayang, Malaysia.

Received: August 01, 2025; **Accepted:** August 06, 2025; **Published:** August 15, 2025

ABSTRACT

We present the case of an 87-year-old male patient who sustained blunt injuries following a collapse. The initial chest X-ray revealed an extremely widened mediastinum. To clarify the etiology, a chest CT angiography was performed, which demonstrated a large anterior mediastinal cyst compressing the aorta, Takotsubo cardiomyopathy, a transient cardiac condition often precipitated by emotional or physical stress, can clinically and electrocardiographically mimic acute myocardial infarction (AMI), leading to potential misdiagnosis and inappropriate treatment. This case report details a 58-year-old male who presented with acute urinary retention and concurrent chest pain, whose ECG findings initially suggested anterior ST-elevation myocardial infarction (STEMI). Thrombolysis was initiated but later found to be unnecessary as subsequent investigations revealed no elevation in cardiac biomarkers, normal echocardiographic findings, and resolution of ECG changes—indicating stress-induced cardiomyopathy. The patient experienced complications from thrombolytic therapy, including severe hematuria. This case underscores the diagnostic challenges posed by Takotsubo cardiomyopathy and highlights the critical need for accurate early differentiation from true occlusive coronary events to prevent unnecessary interventions and associated complications.therapy was initiated, followed by thoracic surgery using the VATS (Video-Assisted Thoracoscopic Surgery) technique. Intraoperatively, the thyroid involvement suspected on CT imaging could not be definitively confirmed.

Keywords: MI, Cardiomyopathy, AUR, Takotsubo

Introduction

Stress-induced ST elevation, often associated with conditions such as Takotsubo's cardiomyopathy, mimics acute myocardial infarction without obstructive coronary artery disease. It is transient in nature with acute reversible left ventricular dysfunction. This case report enlightens the disease presentation, management and outcome of a patient with evolving ECGs of stress-induced ST elevation.

Case description

A 58-year-old Indian male with a history of hypertension, Benign prostatic hyperplasia and Dyslipidemia, presented with acute urinary retention (AUR) for past 3 days with acute chest pain and shortness of breath for 1 day. Chest pain was described as severe, pressing in nature and radiated to his left arm with pain score 9. His vitals: blood pressure 158/60 mmHg, heart rate 110 bpm, respiratory rate 24 with oxygen saturation 98% under room air. He was diaphoretic and in mild distress with no signs of heart failure.

ECG showed ST-elevation in leads V2-V4 prompting anterior myocardial infarction diagnosis with subsequent thrombolysis with metalyse. CBD which was inserted during the initial presentation of AUR had relieved his pain to 2. This manifested into a sinus rhythm ECG with no Q waves despite only 15 minutes into thrombolysis. Unfortunately, he developed complications of severe hematuria during 30 minutes of ongoing unwarranted thrombolysis. Subsequent serial ECGs were also SR. Laboratory showed Trop I and cardiac enzymes were not raised. Echocardiogram was normal

Discussion

Takotsubo cardiomyopathy, often triggered by acute emotional or physical stress, is characterized by transient left ventricular dysfunction and ECG changes mimicking myocardial infarction. The pathophysiology involves catecholamine surge leading to myocardial stunning. Differentiating this condition from occlusive acute coronary syndrome is critical to avoid unnecessary invasive procedures with unwanted complications. Current guidelines recommend supportive care and follow-up for recovery of cardiac function in this condition.

Citation: Leong Chong Hern, Leong Zhao Hong, Syed Jamal. Takotsubo's Cardiomyopathy Conundrum: A Case of Misdiagnosis . J Inten Care Emerg Med. 2025. 1(1): 1-3. DOI: doi.org/10.61440/JICEM.2025.v1.05

Conclusion

This case highlights the importance of recognizing stress-induced ST elevation ECG changes and distinguishing them from other life-threatening conditions to avoid unwarranted thrombolysis or other invasive procedures [1-5]. Takotsubo cardiomyopathy is a unique condition that underscores the profound connection between emotional stress and cardiac health. Early identification and supportive management can lead to favorable outcomes. Education on stress management is crucial for preventing future recurrence [6].

References

1. Prasad A, Lerman A, Rihal CS. Apical ballooning syndrome (Tako-Tsubo or stress cardiomyopathy): a mimic of acute myocardial infarction. American heart journal. 2008. 155: 408-117.
2. Templin C, Ghadri JR, Diekmann J, Napp LC, Bataiosu DR, et al. Clinical features and outcomes of takotsubo (stress) cardiomyopathy. New England Journal of Medicine. 2015. 373: 929-938.
3. Pelliccia F, Kaski JC, Crea F, Camici PG. Pathophysiology of Takotsubo syndrome. Circulation. 2017. 135: 2426-2441.
4. Ghadri JR, Wittstein IS, Prasad A, Sharkey S, Dote K. et al. international expert consensus document on Takotsubo syndrome (part I): clinical characteristics, diagnostic criteria, and pathophysiology. European heart journal. 2018. 39: 2032-2046.
5. Ghadri JR, Cammann VL, Jurisic S, Seifert B, Napp LC, et al. A novel clinical score (InterTAK Diagnostic Score) to differentiate takotsubo syndrome from acute coronary syndrome: results from the International Takotsubo Registry. European journal of heart failure. 2017. 19: 1036-1042.
6. Kevin Bybee A, Tomas Kara, Abhiram Prasad, Amir Lerman, Greg Barsness W, et al. Transient left ventricular apical ballooning syndrome: a mimic of ST-segment elevation myocardial infarction. Mayo Clinic Proceedings. 2004. 141: 858-865.