








## Characteristics of Takotsubo cardiomyopathy - a single-center experience

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**Background:** Takotsubo cardiomyopathy (TCM) is an acute, stress-induced cardiomyopathy with an increased prevalence in post-menopausal women<sup>1</sup>. There is yet no consensus on the diagnostic criteria for TCM. Mayo Clinic Criteria include transient wall motion abnormality, absence of obstructive coronary disease or angiographic evidence of acute plaque rupture, new electrocardiographic abnormalities or modest elevation in cardiac troponin and the absence of pheochromocytoma and myocarditis<sup>2</sup>. *Aim:* To report the clinical characteristics from a single center of patients with TCM.

**Patients and Methods:** We retrospectively analyzed data of 49 consecutive patients from 2012 to 2022 discharged as TCM. Baseline demographics, ECG, coronary angiography, and echocardiography were reviewed.

**Results:** 42 (86%) patients presented with chest pain, while 21 (43%) had dyspnea. Almost all patients (48/49, 98%) were female. The mean age was 62±12years, of which 47% (n=23) were aged ≤55 years. Arterial hypertension was present in 63% (31/49), hyperlipidemia in 80% (39/49) and diabetes in only 14 patients. Various stressors were noted. 45% of patients had a new onset of ST elevation. Mean ejection fraction (EF) at presentation was 51%. In 11 patients we did a subsequent echocardiography and mean EF was 60% at follow-up.

**Conclusion:** TCM is an important safety issue occurring predominantly in post-menopausal women undergoing specific stressing condition. Timely diagnosis and treatment can prevent the development of later complications associated with heart failure<sup>3</sup>.

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### LITERATURE

1. Meier JH, Seward JB, Miller FA Jr, Oh JK, Enriquez-Sarano M. Aneurysms in the left ventricular outflow tract: clinical presentation, causes, and echocardiographic features. *J Am Soc Echocardiogr.* 1998 Jul;11(7):729-45. <https://doi.org/10.1053/j.e.1998.v11.a91047>
2. Gupta S, Gupta MM. Takotsubo syndrome. *Indian Heart J.* 2018 Jan-Feb;70(1):165-174. <https://doi.org/10.1016/j.ihj.2017.09.005>
3. Assad J, Femia G, Pender P, Badie T, Rajaratnam R. Takotsubo Syndrome: A Review of Presentation, Diagnosis and Management. *Clin Med Insights Cardiol.* 2022 Jan 4;16:11795468211065782. <https://doi.org/10.1177/11795468211065782>