

Can a 48-year-old man have TakoTsubo cardiomyopathy?

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Introduction:

TakoTsubo cardiomyopathy (TCM) was first described in Japan in 1990 by Sato et al as a syndrome mimicking acute myocardial infarction. Patients usually have chest pain, ST- elevation on the electrocardiogram, elevated cardiac enzymes and no significant stenoses of the coronary arteries seen in the angiography. [1]

TakoTsubo cardiomyopathy is characterized by transient contractile abnormalities of the left ventricle, causing the typical left ventricular apical ballooning at end-systole with concomitant compensatory basal hyperkinesia. [2]

In 95 % of the patients with TCM there is a full recovery of the left ventricle function after 4-8 weeks. Complications, such as heart failure, cardiogenic shock, left ventricular outflow obstruction, mitral regurgitation, ventricular arrhythmias, formation of left ventricular mural thrombus, left ventricular free-wall rupture or death, can occur in 20% of the patients with TCM.

Studies reported that 1.7- 2.2% of the patients who had suspected acute

coronary syndrome were subsequently diagnosed with Tako Tsubo cardiomyopathy (TCM). [3,4] These patients were usually Asian or Caucasian. In a literature review of the cases, in which race was reported 57.2% of the patients with TCM were Asian, 40% were Caucasian, and 2.8% were of other races. [5]

In the literature there is a report where the mean age for patients with TCM is 67 years, although cases of TCM have also occurred in children and young adults. [5, 6] Nearly 90% of the reported cases involved postmenopausal women. [7] The literature reviews only a few cases of TCM in male patients. A new multicenter trial with more than 200 patients (July 19, 2011 Leipzig, Germany) was published in the Journal of the American Medical Association. Eitel and colleagues expanded the clinical profile of the patients with TCM. The researchers found that about 11% of the patients with TCM were men and 8% - younger women. Unlike previous studies, this one showed that only 71% of all patients had a clearly identifiable prior stressful event. [8]

Case Report

A 48-year-old man with strong precordial pain that had lasted about 1 hour was referred to Cardiac hospital Pleven. The symptoms appeared at rest and 2 tablets of nitroglycerin could not alleviate the pain.

His risk factors were gender, overweight, arterial hypertension and a family history of a father who had suffered a myocardial infarction at the age of 62.

On a standard 12-lead electrocardiogram we found 1 mm ST- elevation in II, III and aVF and 3 mm ST- elevation in V3-V6.

The laboratory results showed slightly elevated Troponin I- 0.89 (reference range < 0.01), normal creatinphosphokinase and MB fraction, normal blood count, renal and liver function.

On the echocardiography there were left ventricle hypertrophy, moderate LV dysfunction with apical akinesia and hypercontractile basal segments, normal valves.

The patient was indicated for emergency coronary angiography, which showed coronary arteries without stenoses. Left ventriculography was performed and we observed apical ballooning of the left ventricle with mild systolic dysfunction.

On the next day the ECG showed deep negative T- waves in II, III, aVF, V1-V6.

The laboratory results showed decrease of Troponin I.

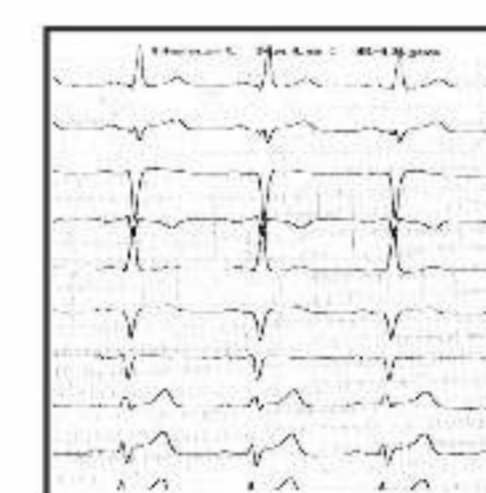
The patient reported that he was working as a roofer and in the last few days his employer had obliged him to work despite of the bad weather and the rain. This had been very emotional and stressful for the patient.

He was discharged after 3 days, with no chest pain and prescription for antihypertensive drugs.

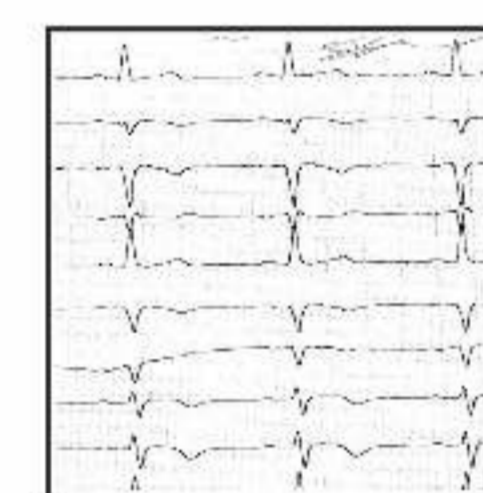
After 2 weeks a control echocardiography was performed and we observed normal kinetics of the left ventricle and full recovery of systolic function.

Conclusion:

TakoTsubo Cardiomyopathy is typical for elderly women, but our case reveals that TCM can be diagnosed in young man too.



ECG at admission

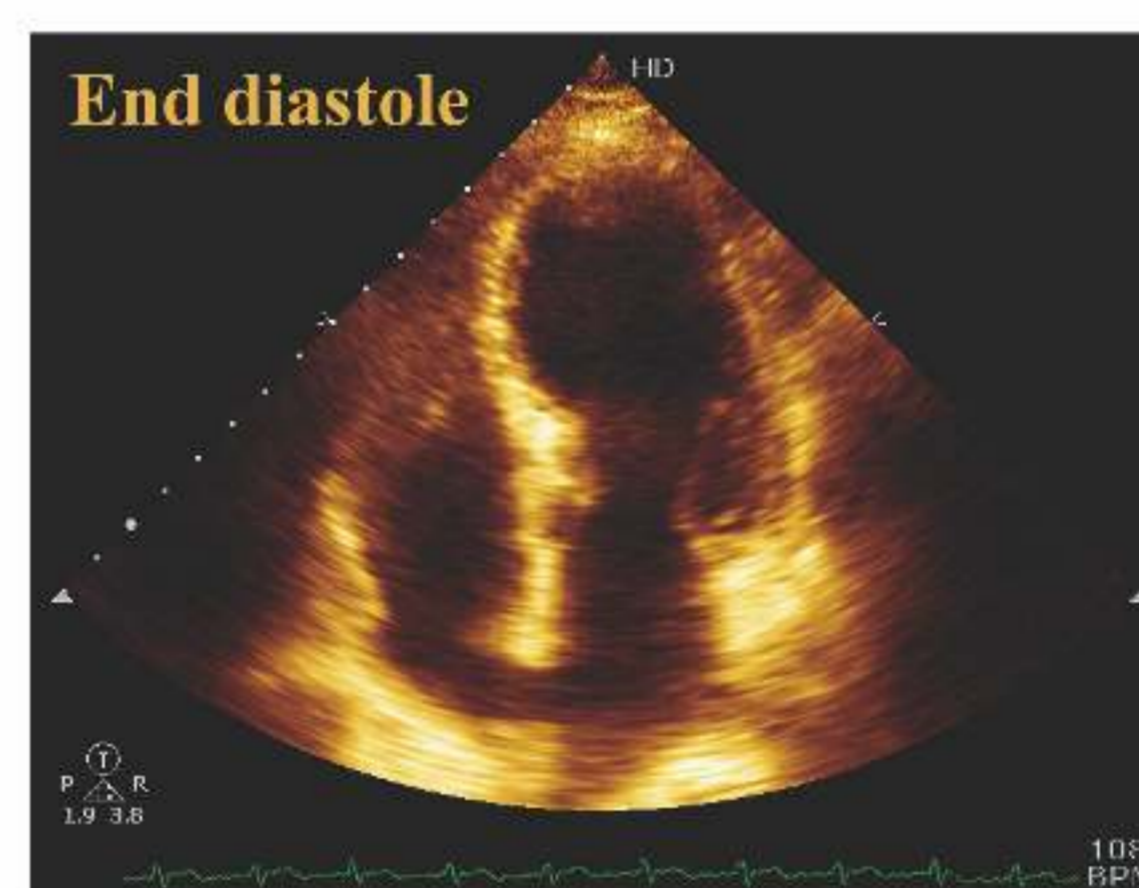


ECG on the next day

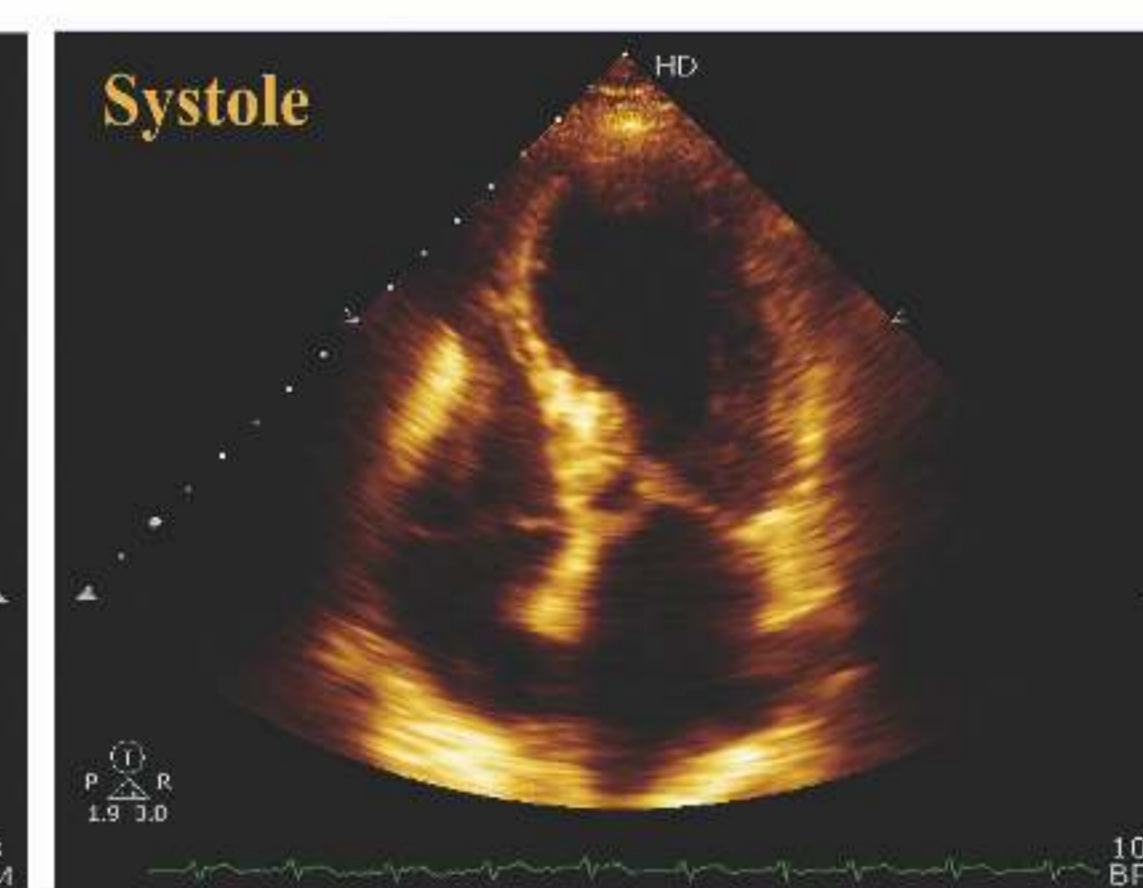


X Ray

Echo at admission

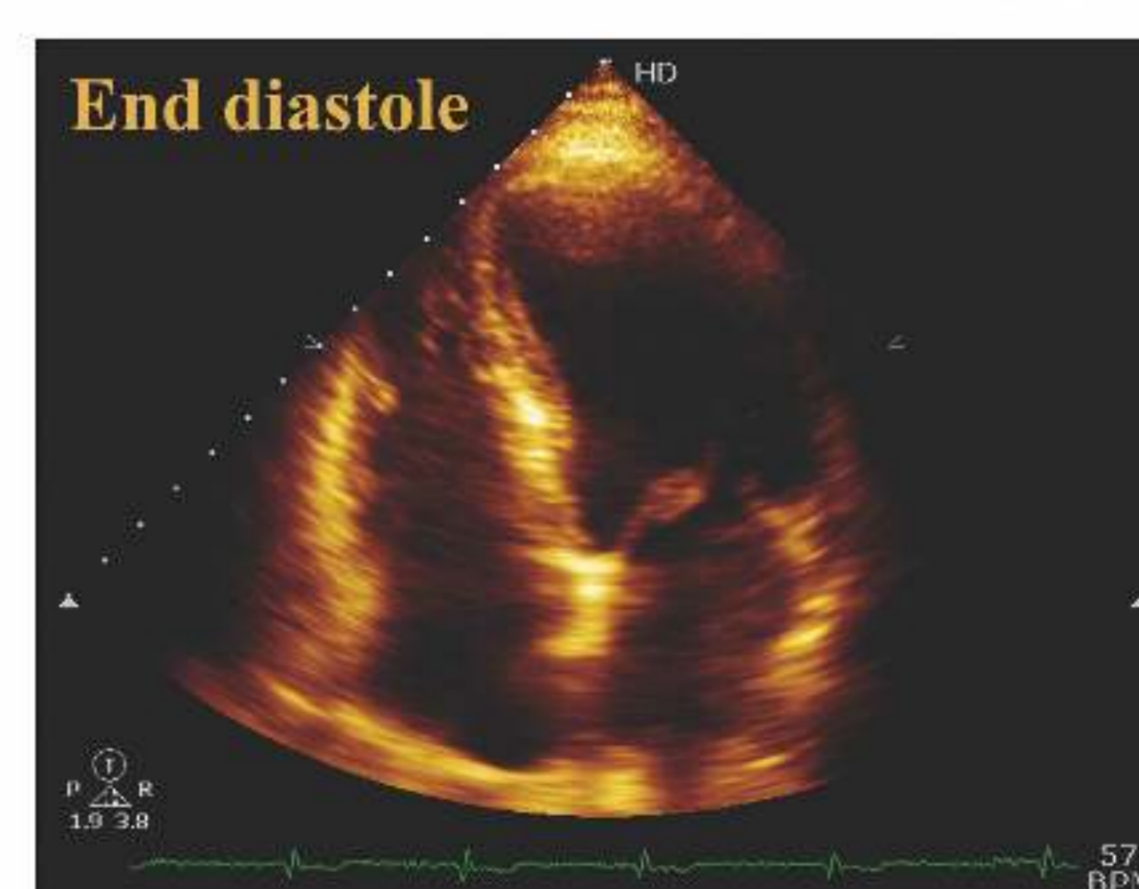


End diastole

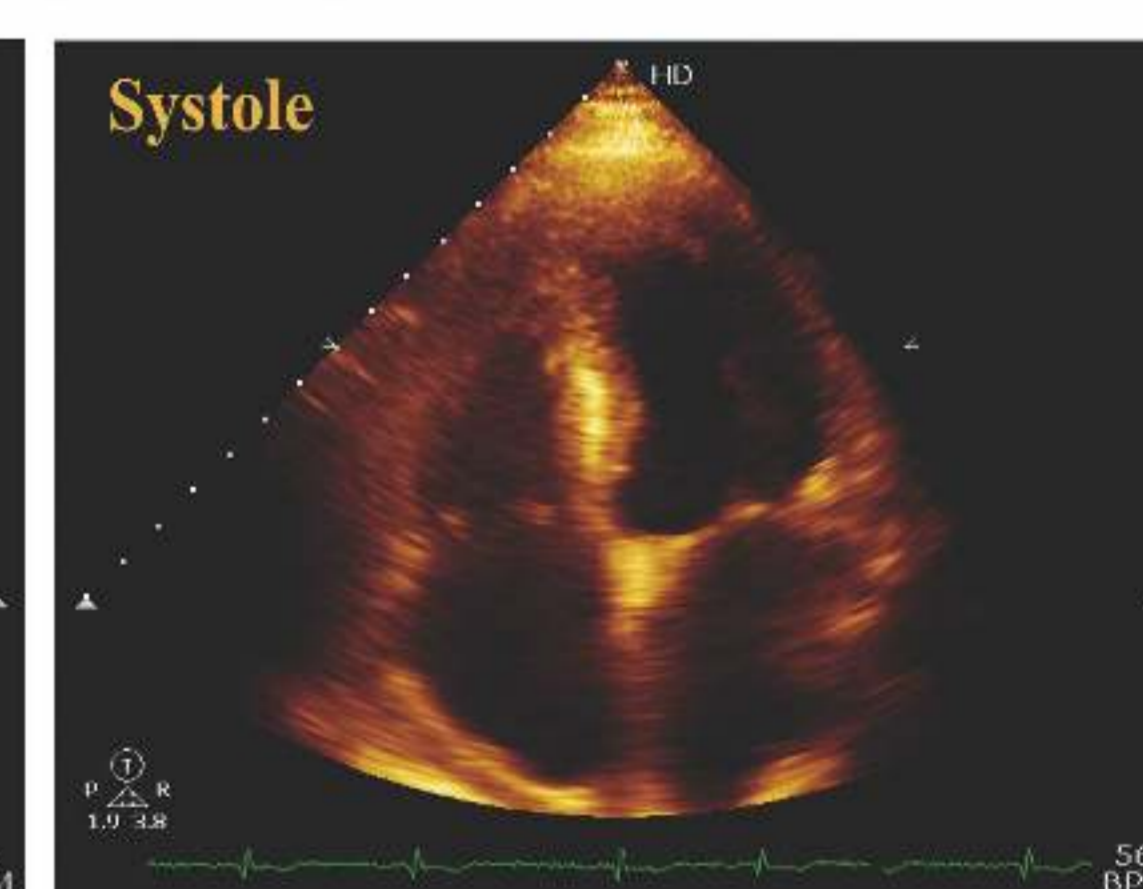


Systole

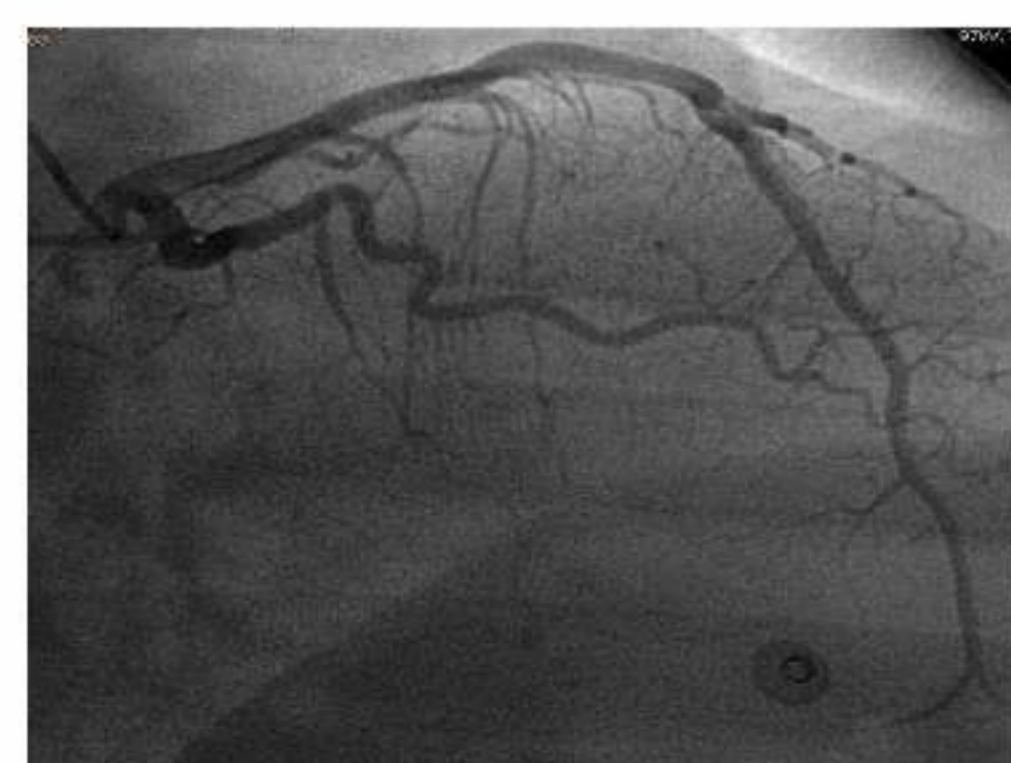
Echo after 2 weeks



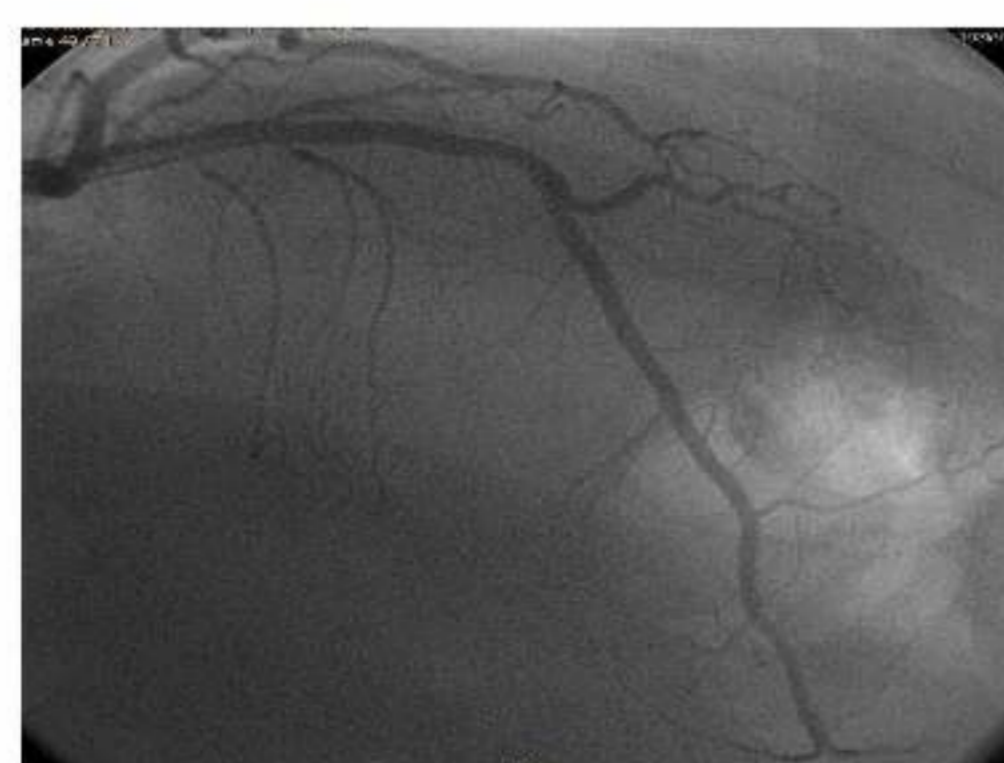
End diastole



Systole



LCA



LAD wrap the apex



RCA



Diastole



Systole

Left ventricle

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