

Takotsubo cardiomyopathy in a female patient with acute ureterolithiasis

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Introduction: Takotsubo (stress cardiomyopathy/transient apical ballooning/broken heart syndrome) is disorder associated with transient left ventricular dysfunction. It usually occurs in older women, 50% of them with neurologic or psychiatric conditions, or after emotional or physical stress, but also in absence of those triggers, and in younger population and men too. An excessive release of catecholamines seems to be pivotal role in the development of stress cardiomyopathy. Usually patients present with acute heart failure or acute coronary syndrome. Echocardiographically is almost undistinguishable from acute myocardial infarction due to left descending coronary artery occlusion.^{1,2}

Case report: We herein present the case of 50-years-old female with nonregulated hypertension, dyslipidemia and obesity, presented with renal colic accompanied with nonspecific chest pain and dyspnea within 36 hours before admission. Initially she was presented to urologist due to dilation of channel system of the right kidney; radiographically possible stone in prevesical part of right ureter. Since her electrocardiogram showed subacute myocardial infarction with ST-segment elevation of anteroseptal region (**Figure 1**) with troponin T elevation up to 0.53 ug/L, she was admitted to Coronary Unit at the Department of Internal Medicine. Echocardiography showed closely suspicions on Takotsubo cardiomyopathy with preserved left ventricular systolic function (**Figure 2**), no valvular disease or intracavitary gradient. Her laboratory test results showed progression of deterioration of renal function and oliguria (urea 18,3 mmol/l, creatinine 264 mmol/l, eGFR EPI 17.4 mL/min), inflammation markers were high (Leucocytes 19×10^9 , CRP 270 ug/L) predicting urosepsis and obstruction of the right kidney needed to be solved promptly. She was amicably transferred to tertiary center where urologists first resolved kidney obstruction since her kidney function was compromised, and after resolving urosepsis and full recovery she underwent coronarography that confirmed Takotsubo cardiomyopathy with no coronary artery obstruction lesions. Patient was managed with conservative therapy: ACE inhibitors, beta-blockers, analgesics and low molecular weight heparin. After six weeks she came for control

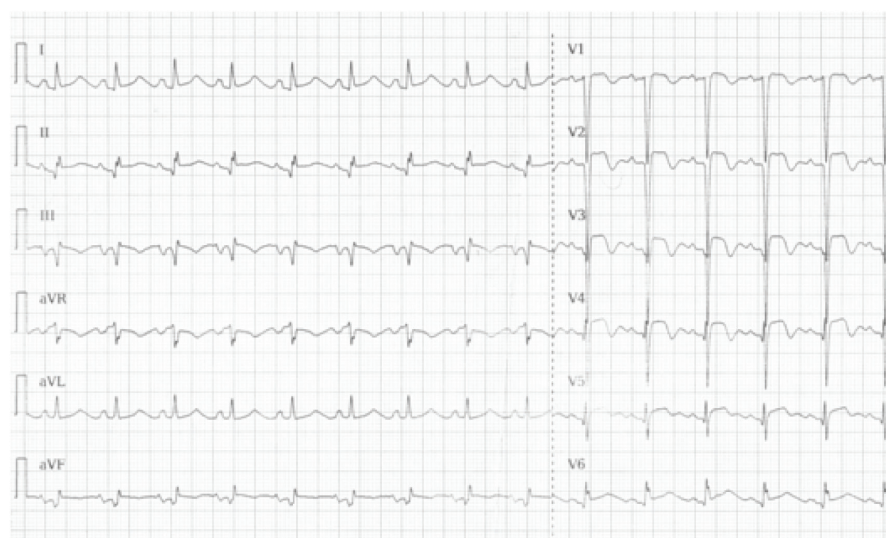


FIGURE 1. Subacute myocardial infarction with ST-segment elevation in the anteroseptal region.

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