
Abstract 43

Heart, Brain, and the Octopus Connection

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Introduction: Intense vasospasm of the coronary arteries following a stressful event may cause myocardial stunning and lead to chest pain similar to that occurring after an acute coronary syndrome.

Case Report: Mr. F is a 62-year-old white man with past medical history of deep venous thrombosis and pulmonary embolism that occurred 7 years ago. He presented with a chief complaint of chest pain that started after he had an episode of dizziness while working outside cleaning a pool. The initial physical examination revealed nothing of significant note except a systolic murmur. The patient had no clinical signs of heart failure. Initial electrocardiogram showed ST-segment elevation in lateral leads with no reciprocal changes. Coronary angiography did not reveal any significant flow-limiting obstruction, but it showed a large area of lateral wall dyskinesis, significant left ventricular dysfunction with an ejection fraction of 30%, and significant mitral regurgitation. The first set of troponin, creatine phosphokinase, and creatine kinase MB fraction indices were elevated at 44.5, 932, and 47.3, respectively. The D-dimer was within normal limits. The patient was started on low-dose angiotensin converting enzyme inhibi-

tor, beta-blocker, aspirin, and an HMG-CoA reductase inhibitor. He was symptom free on the second day of hospitalization and remained asymptomatic throughout his hospital stay. A repeat two-dimensional (2D) echocardiogram showed improvement of the patient's ejection fraction (45% to 50%) and resolution of his mitral regurgitation.

Conclusions: Takotsubo syndrome (also called broken-heart syndrome or stress cardiomyopathy) was first described in Japan. Classically, it is a transient cardiomyopathy that occurs after a stressful event, usually observed in women, and is described as apical ballooning of the heart with basal hyperkinesis. We report the first case of Takotsubo variant involving the lateral wall associated with electrocardiographic changes in a 62-year-old man. This transient cardiomyopathy usually improves with time. Our patient's cardiomyopathy improved, along with improvement of his mitral regurgitation as shown on 2D echocardiography. Mitral regurgitation in this case was likely due to dysfunction of papillary muscle associated with this condition.

Reason Case Chosen: Takotsubo syndrome is an important consideration in the presentation of acute coronary syndrome. It usually presents after an acute stressful event. However, in recent times, it has been described after even minor stresses such as steroid injection in asthma exacerbation, a court appearance, surprise parties, and, as in this patient, an episode of dizziness. It is important to recognize this syndrome, its presentation after even minor stressors, and its prognosis, which is usually very good.