STRESS INDUCED CARDIOMYOPATHY COMPLICATED BY LEFT VENTRICULAR THROMBUS (OCTOPUS IN THE POT)

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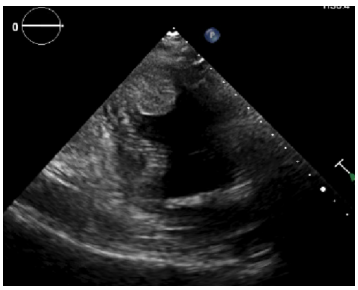
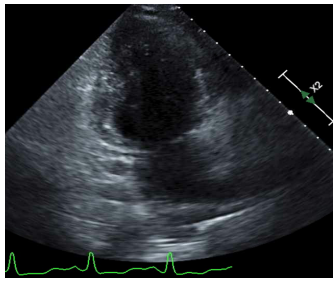
Case Vignettes

Takotsubo cardiomyopathy, “broken heart syndrome” is a transient systolic dysfunction, primarily of the left ventricle, without any angiographic evidence of coronary artery disease or dysfunction extending beyond territory perfused by a single artery.

We present a case of a 72 year old post-menopausal female with pertinent medical history of anxiety, paroxysmal atrial fibrillation, and recurrent Clostridium difficile colitis, who presented with complaints of subacute onset of shortness of breath and extreme emotional distress because of her multiple hospitalizations (12 in the last year) in the setting of colitis. On presentation, she was tachycardic with heart rate of 114 beats/min and tachypneic with respiratory rate of 28 breaths/min, blood pressure of 125/86 mmHg, and oxygen saturation 96%. Pulmonary and cardiovascular examination was normal without JVD or peripheral edema. Her EKG showed T wave inversions in the anterolateral leads. A CT angiogram of the chest revealed no evidence of pulmonary embolism, however, demonstrated a 3.0 cm rounded area of diminished attenuation in the left ventricle that was consistent with thrombus. A transthoracic echocardiogram (TTE) revealed an EF (Ejection Fraction) of 20-25%, hyperdynamic motion of the base of the left ventricle with akinesis of the mid to apical segments, and a 3.3 x 3.7 cm oval shaped echo dense mass attached to the apical aspect of the inferoseptal and inferior walls. Echocardiogram with an enhancing agent revealed a mass appearance most consistent with a thrombus. Cardiac catheterization revealed a 70% stenosis of the proximal left circumflex artery. rFR (Resting Full-cycle Ratio) and FFR (Fractional Flow Reserve) yielded borderline values, and thus PCI (Percutaneous Coronary Intervention) was not performed.





She was started on heparin drip however her hospital course was complicated by embolization of the thrombus to her left brachial, radial, and ulnar arteries which was successfully removed with a thrombectomy. Follow up TTE revealed a reduction in the size of the thrombus to 0.9 x 0.6 cm and similar wall motion abnormalities. She was discharged home on enoxaparin to warfarin bridging and was scheduled for outpatient follow-up with cardiology and the anticoagulation clinic. Repeat TEE in 2 weeks' time revealed improved EF to 70-80% with no evidence of a thrombus revealed by acoustic contrast opacification.

Takotsubo cardiomyopathy can be a result of severe stress related to a medical condition like in our patient, however it is a diagnosis of exclusion. It can be associated with a left ventricular thrombus due to the akinesis of the left ventricular apex, but most cases are self limiting with appropriate supportive management and follow up.