Oh Baby! A Rare Case of Heart Failure

Deshanki Pandya MD, Sydney Asselstine MD, Aida Abdul Majid MD, Zeeshan Khan MD, Maria Ciminelli MD
Rutgers Robert Wood Johnson Medical School Family Medicine Residency at CentraState Medical Center

Introduction

Peripartum cardiomyopathy (PPCM) is a diagnosis of exclusion, generally defined as idiopathic heart failure with reduced ejection fraction (< 45%) in women without history of structural heart disease, who are in late pregnancy or in the following few months postpartum. It is a life-threatening condition with often delayed diagnosis given clinical symptoms coincide with normal late gestational symptoms.

Case Presentation

29 yo G3P1112 with h/o gestational diabetes, tobacco use presented to the ED with **pleuritic chest pain, without shortness of breath for 5 days**. Of note, this was about one month post-op of her cesarean section. Upon arrival to the emergency room, patient was tachycardic to the low 100s, normotensive, normothermic. Pertinent exam findings include no jugular venous distention or bruits, lungs were slightly diminished at left lung base, otherwise clear to auscultation without wheezes, rales, or rhonchi. Cardiovascular exam was regular rate and rhythm without murmurs, gallops or rubs. No edema was noted in bilateral lower extremities.

Labs

Troponin was elevated at 0.11 which then downtrended. Urine toxicity screen was positive for amphetamines, marijuana and opiates. Chest X-ray showed patchy right middle lobe opacity and questionable left basilar opacity. CT angiogram of the chest showed no pulmonary embolism, with findings suspicious for multifocal pneumonia. Echocardiogram showed normal left ventricular size, wall thickness with **reduced ejection fraction of 20-25%** with severe global hypokinesis and indeterminate pattern of left ventricular diastolic filling.

Results

Catheterization showed normal coronary arteries with a markedly elevated LVEDP at 40 mmHg. Cardiology determined the most likely cause of reduced ejection fraction was peripartum cardiomyopathy and decided to start **Furosemide** for diuresis, **Carvedilol** and **Spironolactone** for guideline-directed medical treatment. **LifeVest** was also requested for this patient and provided on discharge with plans for future ICD.

Discussion

Many questions remain regarding this condition, making the diagnosis and treatment plan difficult. There is ongoing research to determine etiology, pathophysiology and management for PPCM. A review of the current knowledge on this condition is essential for early detection and treatment.

Of note, patient returned to the emergency department multiple times within the weeks following discharge due to repeated chest pain and shortness of breath. She was adherent to follow up and medications, however symptoms continued to recur.

Per recent chart review, patient was found to have a large apical thrombus and started on Coumadin. Ongoing discussion for possible heart transplant.

Differential Diagnoses

Differential diagnoses for this patient included drug-induced cardiomyopathy, peripartum cardiomyopathy, valvular disease, costochondritis, and pneumonia.

Risk Factors
Age > 30 y/o
African American
Multiple Gestation
Preeclampsia / HTN