Flash Pulmonary Edema in a Patient with Multiple Sclerosis and Peripartum Cardiomyopathy

Presenting Author: Ruchi Sharma MD
Presenting Author's Institution: University Hospitals Case Medical Center - Cleveland, OH
Co-Authors: Susan D Dumas MD - University Hospitals Case Medical Center - Cleveland, OH

Introduction: Peripartum cardiomyopathy is a topic not well clarified in obstetrics. It is an uncommon form of heart failure seen in 1:3000-15,000 live births in the United States (1). The etiology of this disease process is unknown. One of the pathophysiological processes, however, includes an autoimmune process.

Case Presentation: A 27 year old G1P0 at 38 weeks gestation with a history of multiple sclerosis, morbid obesity, HTN, gestational DM and family history of dilated cardiomyopathy, was transferred from an outside hospital with severe preeclampsia. Physical exam revealed orthopnea and 3+ peripheral edema. Plans for induction of the patient’s labor were made and cardiac status was assessed. A bedside TEE showed a mildly dilated left ventricle, left ventricular hypertrophy, an ejection fraction of 25-30% and moderate pulmonary hypertension. The patient’s cardiac and respiratory status was assessed as the patient’s oxygen requirement gradually increased from 2L to a non-rebreather face mask. Twelve hours into the induction, the patient began to have chest pain and complained of sudden shortness of breath. Her oxygen saturation decreased to the low 70’s and she subsequently went into respiratory arrest. The fetal heart rate dropped to 60 beats per minute. The patient was intubated in the labor room and noted to have pink frothy sputum. She was quickly transported to the operating room for an emergent cesarean section. The cesarean section was uneventful and the patient was taken to the cardiac intensive care unit where she remained intubated until post-op day two. A diagnosis of peripartum cardiomyopathy and severe preeclampsia was made. She was diuresed and placed on seizure prophylaxis.

Discussion: Peripartum cardiomyopathy is a rare complication of pregnancy which can present in the last months of pregnancy and up to six months postpartum. Dyspnea, orthopnea, and peripheral edema are typical manifesting symptoms thus clinically identical to dilated cardiomyopathy. The etiology remains unclear, however, certain studies have indicated that there may be an underlying autoimmune pathophysiology provoking such an event. Patients with autoimmune disorders such as multiple sclerosis have been noted to show an exacerbation of their disease in the immediate postpartum period secondary to restoration of the maternal immune system (2). In this patient, one wonders whether her underlying autoimmune disorder, multiple sclerosis, coupled with the severe preeclampsia predisposed her to this unfortunate event.

McNamara. Treatment of Peripartum Cardiomyopathy. Cardiovascular Institute of the University of Pittsburgh Medical Center