

Case Report

## Peripartum Cardiomyopathy

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### Case

19 y African American G3P2002 @ 39 weeks admitted for a repeat cesarean section with a twin pregnancy with h/o previous c/s and no medical problems, uncomplicated prenatal care. During admission patient was found to have severe preeclampsia was taken to OR for a repeat c/s remarkable for post partum hemorrhage EBL 1400 cc, s/p 2 u prbc, s/p IV Magnesium for 24 hours, on day 1. Day 3 patient c/o shortness of breath, sat 90% room air, with crackles in chest auscultation, CXR: pulmonary edema/CHF pattern, ABG with acute respiratory alkalosis, elevated pro BNP (7165), transferred to ICU, Transthoracic echocardiogram dilated RA, mod to severe MR, thickened mitral valves,, mild to moderate TR EF of 44.2%, negative cardiac enzymes, chest CT no PE with pulmonary edema and bilateral pleural effusions (Figure 1), patient placed on enalapril, carvedilol, hydralazine, furosemide, patient with significant improvement, Transesophagegic echocardiogram EF of 46%, eccentric LVH with global hypokinesis, End Diastolic Dimension: 5.62 cm mildly dilated LV, grade 2 diastolic dysfunction, mildly elevated pulmonary artery pressure of 35 mmhg. Patient clinically improved, with a loss of 29 lbs after initiation of CHF treatment. Discharged in a stable condition, medications continued, has been followed up as outpatient.

### Discussion

Peripartum cardiomyopathy is a rare cause of heart failure (HF) that affects women in early and late pregnancy or in the early puerperium, defined as a condition meeting four criteria [1-3]:

- Development of heart failure (HF) in the last month of pregnancy or within five months of delivery.
- Absence of another identifiable cause for the HF.
- Absence of recognizable heart disease prior to the last month of pregnancy.
- LV systolic dysfunction (eg, Left Ventricular Ejection Fraction [LVEF] below 45 percent or a reduced fractional shortening).

The reported incidence of 1:2289 to 1:4000 live births [3].

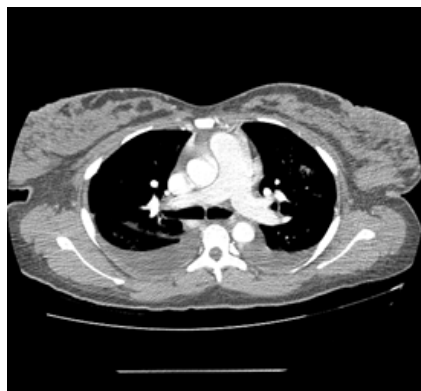


Figure 1: CT scan of chest showing bilateral pleural effusions.

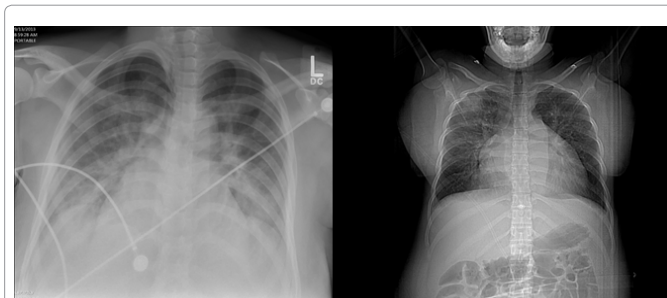


Figure 2: Chest X ray before and after treatment.

### Risk factors:

- Age greater than 30 years
- Multiparity
- African descent
- Pregnancy with multiple fetuses
- A history of preeclampsia, eclampsia, or postpartum hypertension
- Maternal cocaine abuse
- Long-term (> 4 weeks) oral tocolytic therapy with beta adrenergic agonists such as terbutaline

Patients most commonly complain of dyspnea; other frequent symptoms include cough, orthopnea, paroxysmal nocturnal dyspnea, and hemoptysis [4,5]. BNP typically elevated and the Chest x-ray shows enlargement of the cardiac silhouette with evidence of pulmonary venous congestion and/or interstitial edema, and, on occasion, pleural effusions (Figure 2) [6].

Treatment include tolerable doses of diuretics, Digoxin, Vasodilators (Hydralazine the drug of choice in pregnancy, post partum the ACE inhibitors with considerations for breastfeeding), The combination of ACE inhibitors and beta blockers is very important for achieving recovery. When diagnosis is made with LVEF greater than 30 to 35% with appropriate treatment, the recovery rates are almost 100% [7,8]. 4% of patients will require cardiac transplantation and a overall mortality rate of approximately between 4 to10 percent at a mean follow-up of about two years [9-11].

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