Case Report

Peripartum Cardiomyopathy: An Obstetrician's Nightmare

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ABSTRACT

Peripartum cardiomyopathy (PPCM) is an uncommon but life-threatening disease. PPCM is dilated cardiomyopathy defined by systolic cardiac failure in the past month of pregnancy up to within 5 months after delivery.[1] Echocardiography is used to diagnose and monitor the patients. We report a case of a 31-year-old G3P1L1A1 with previous C-section with twin pregnancy and anemia.

Key words: Cardiovascular diseases, peripartum cardiomyopathy, women's health

INTRODUCTION

Peripartum cardiomyopathy (PPCM) is an idiopathic cardiomyopathy presenting with heart failure, secondary to left ventricular systolic dysfunction toward the end of pregnancy or in the few months after delivery. It is a diagnosis of exclusion when no other cause of heart failure is found.[2] Early signs and symptoms of heart failure can be obscured by pregnancy because often the patient considers them to be a normal part of pregnancy.

CASE REPORT

A 31-year-old G3P1L1A1 with previous h/o C-section with twin pregnancy and moderate anemia. One unit of packed cell volume was given preoperatively. Elective cesarean section was done at 38 weeks after pre-anesthetic check-up. The patient was stable in the immediate post-operative period. After about 8 h during monitoring, it was noticed that her SpO_2 had dropped to 88%. She complained of breathlessness. On examination, her vitals were as follows: Respiratory rate 22/min, blood pressure was 100/60 mmHg, pulse 96/min, and SpO_2 88–90%; so, the patient was put on O_2 (2 lit/min) by mask. Chest auscultation revealed crepitations in basal lung fields. Cardiovascular examination shows displacement of apical impulse. Abdominal examination was unremarkable. Laboratory investigations were repeated. Echocardiography showed sinus tachycardia. Chest X-ray suggested hyperemic lung fields due to pulmonary congestion with enlarged cardiac shadow. Injectable furosemide was started to decrease the pulmonary congestion. 2D-ECHO was done that revealed postpartum cardiomyopathy, moderate left ventricular (LV) systolic dysfunction, and LV ejection fraction as 40%.

Based on clinical presentation and 2D-ECHO, a diagnosis of PPCM was done. The patient was started on diuretics, digoxin, angiotensin-converting enzyme inhibitors, and inotropic support. After a period of 48 h, her condition improved, O_2 and inotropic support was tapered off and she was advised to repeat 2D-ECHO after 1 month. Treatment was continued as per physician and cardiologist's opinion. She was advised to avoid any future pregnancy and continue medical

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follow-up. On discharge, both the patient and her baby were stable and healthy.

DISCUSSION

We report a case of PPCM which is very rare. Diagnostic criteria of PPCM are development of cardiac failure in the past month of pregnancy or within 5 months after delivery, with absence of an identifiable cause for the cardiac failure, absence of recognizable heart disease before the last months of pregnancy, and left ventricular systolic dysfunction demonstrated by classic echocardiographic criteria, such as depressed ejection fraction.[3]

The etiology of PPCM remains unknown and proposed causes include aberrant response to the greater hemodynamic burden of pregnancy, advanced maternal age, pre-eclampsia, hypertension, multiple gestations, African-American race, and prolonged use of tocolytics with no proven etiology. The diagnosis of PPCM currently requires that other causes of cardiac dysfunction be excluded.[2]

Approximately half of women suffering from PPCM recover to baseline ventricular function within 6 months of delivery. Failure of heart size to return to normal is associated with excess morbidity and mortality.[4] PPCM is known to have high mortality ranging from 15% to 50%. Timely critical care instituted under supervision of a specialist can favorably change the outcome. The patient should be counseled to avoid future pregnancies due to the increased mortality risk.

Prognosis of women with PPCM depends on normalization of LV size and function. Even with full recovery, subsequent pregnancies carry 30% risk of relapse. Mortality rate varies from 7% to 50%.[5]

CONCLUSION

It is vital to be aware and monitor the mother for any signs and symptoms of PPCM toward the end of pregnancy and during the post-delivery period. Any abnormal cardiac and hemodynamic indicators should be corrected on priority by appropriate treatment. 2D-ECHO parameters are a sensitive predictor of recovery. Timely medical and obstetric management is crucial for a good outcome of pregnancy.

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