Introduction

Peripartum cardiomyopathy (PPCM) is one of the potentially life-threatening complications of pregnancy. The etiopathogenesis is unknown. Peripartum cardiomyopathy (PPCM) is a rare form of myocardial disease in pregnancy which is characterized by left ventricular systolic dysfunction (1). The left ventricular systolic ejection fraction causes heart failure (2). Peripartum cardiomyopathy has been described by the European Society of Cardiology as a form of dilated cardiomyopathy. The main symptoms are related to heart failure in the last months of gestation or within five months after birth.

Case Report

A 20-years-old (G1P0) pregnant woman was referred for further evaluation of heart failure in pregnancy. The patient had no history of hypertension, acquired/congenital heart disease, myocarditis, heart valve disease, myocardriopathy or autoimmune disease before pregnancy, and also had no history of drug, cigarette, alcohol or drug use, no known allergy. According to her last menstruation date, she had a dichorionic diamniotic twin pregnancy of 36 weeks and 2 days of gestational age. Pelvic examination revealed 5 cm cervical dilatation, 90% of cervical effacement, breech presentation of first fetus. Sonographic examination confirmed dichorionic diamniotic live twin pregnancy with estimated fetal weight of 2.200, and 2.000 gr for each fetus. The presentation of fetuses was breech /vertex. Fetal cardiotocography showed regular uterine contractions.

Following the preoperative cardiology and anesthesia consultations, emergency cesarean delivery was planned because of preterm labor and abnormal fetal presentations. Cesarean section was performed under spinal anesthesia and 2160 gram live female fetus with 7/8 (five and ten minutes) Apgar scores, and 1980 gram live male fetus with 7/8 five and ten minutes) Apgar scores were delivered. During the early postoperative...
babies were discharged uneventfully after 10 days of delivery. She well tailored the medical therapy and she and her physical examination findings were unremarkable.

In the laboratory tests; the hemoglobin was 8.5 g/dL, the hematocrit was 27.6%, the thrombocyte was 201.000/mm³ and the serum cardiac troponin level was 248.3. Electrocardiography on admission showed sinus tachycardia at 140 beats per minute and negative T waves in V1 and V2. Cardiac ultrasonography showed left ventricular global hypokinesis and dilatation, a prominent pericardial effusion around the right atrium with no signs of tamponade. Subsequently, she was transferred to the cardiac intensive care unit and received supplemental oxygen, noninvasive ventilation and intravenous infusion of lidocaine. During her treatment, she developed non-sustained ventricular tachycardia. We were in need of intensive care, but due to early diagnosis and initiation of medical treatment, the need for intensive care unit was avoided and the patient was medically treated without any morbidity.

The main treatment strategies of peripartum cardiomyopathy should include oxygen supplementation, salt restriction, diuretics, digital and vasodilating agents. Cardiac transplantation is the only option for patients not responding to medical treatment (6).

The clinicians should keep in mind the diagnosis of PPCM in young woman with twin pregnancy in third trimester and having heart failure symptoms even following delivery. Emergent cardiologic evaluation and intervention must be done for this rare and potentially morbid and mortal condition. Early diagnosis would save woman life.

Signed patient consent form was obtained for this report.

Discussion

Although its exact cause is unknown, PPCM is thought to result from increased cardiac stress due to the increased blood volume during pregnancy (1). The incidence in United States is between 1:2.289-1:4.000. The risk factors for PPCM includes multiple pregnancy and higher gestational age. However, 25-75% of cases occur in young woman giving birth to their first child (2-3). Our patient was 25 years-old and this was her first pregnancy which was also a twin pregnancy.

Discussion

As other cardiomyopathies, cardiomyopathy in pregnant women without underlying cardiac disease is characterized by the development of systolic dysfunction resulting in cardiac decline of left ventricular ejection fraction. The clinical diagnostic criteria of the disease were determined by Demakis et al in 1971 like this (4): (a) Heart failure developed during the last month of pregnancy or during the first 5 months of postpartum period. (b) No other causes to explain heart failure. (c) The absence of a heart disease defined before last month of pregnancy. (d) Left ventricular dysfunction with ejection fraction reduction in echocardiography. The final diagnosis of PPCM can only be made if the woman fulfills all four criteria (1,4). In our case, the diagnosis of PPCM was carried out because of the absence of a history of heart disease, the occurrence of the disease in the postpartum period, the absence of another cause explaining heart failure, and also the presence of echocardiography findings.

Approximately half of the cases show spontaneous and complete recovery of left ventricular function after pregnancy. However, there may be a more progressive disease pattern that may require intensive treatments and even cardiac transplantation. Early diagnosis and treatment is very important (5-6). We were in need of intensive care, but due to early diagnosis and initiation of medical treatment, the need for intensive care unit was avoided and the patient was medically treated without any morbidity.

The main treatment strategies of peripartum cardiomyopathy should include oxygen supplementation, salt restriction, diuretics, digital and vasodilating agents. Cardiac transplantation is the only option for patients not responding to medical treatment (6).

The clinicians should keep in mind the diagnosis of PPCM in young woman with twin pregnancy in third trimester and having heart failure symptoms even following delivery. Emergent cardiologic evaluation and intervention must be done for this rare and potentially morbid and mortal condition. Early diagnosis would save woman life.

Signed patient consent form was obtained for this report.

Discussion

Although its exact cause is unknown, PPCM is thought to result from increased cardiac stress due to the increased blood volume during pregnancy (1). The incidence in United States is between 1:2.289-1:4.000. The risk factors for PPCM includes multiple pregnancy and higher gestational age. However, 25-75% of cases occur in young woman giving birth to their first child (2-3). Our patient was 25 years-old and this was her first pregnancy which was also a twin pregnancy.

As other cardiomyopathies, cardiomyopathy in pregnant women without underlying cardiac disease is characterized by the development of systolic dysfunction resulting in cardiac decline of left ventricular ejection fraction. The clinical diagnostic criteria of the disease were determined by Demakis et al in 1971 like this (4): (a) Heart failure developed during the last month of pregnancy or during the first 5 months of postpartum period. (b) No other causes to explain heart failure. (c) The absence of a heart disease defined before last month of pregnancy. (d) Left ventricular dysfunction with ejection fraction reduction in echocardiography. The final diagnosis of PPCM can only be made if the woman fulfills all four criteria (1,4). In our case, the diagnosis of PPCM was carried out because of the absence of a history of heart disease, the occurrence of the disease in the postpartum period, the absence of another cause explaining heart failure, and also the presence of echocardiography findings.

Discussion

Although its exact cause is unknown, PPCM is thought to result from increased cardiac stress due to the increased blood volume during pregnancy (1). The incidence in United States is between 1:2.289-1:4.000. The risk factors for PPCM includes multiple pregnancy and higher gestational age. However, 25-75% of cases occur in young woman giving birth to their first child (2-3). Our patient was 25 years-old and this was her first pregnancy which was also a twin pregnancy.

As other cardiomyopathies, cardiomyopathy in pregnant women without underlying cardiac disease is characterized by the development of systolic dysfunction resulting in cardiac decline of left ventricular ejection fraction. The clinical diagnostic criteria of the disease were determined by Demakis et al in 1971 like this (4): (a) Heart failure developed during the last month of pregnancy or during the first 5 months of postpartum period. (b) No other causes to explain heart failure. (c) The absence of a heart disease defined before last month of pregnancy. (d) Left ventricular dysfunction with ejection fraction reduction in echocardiography. The final diagnosis of PPCM can only be made if the woman fulfills all four criteria (1,4). In our case, the diagnosis of PPCM was carried out because of the absence of a history of heart disease, the occurrence of the disease in the postpartum period, the absence of another cause explaining heart failure, and also the presence of echocardiography findings.