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Case Report

A Peripartum Cardiomyopathy Case Treated with Bromocriptine

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Abstract

The hydatid cysts disease is a parasitic cystic infection of the liver, lungs, and other organs caused by Echinococcus granulosus. It is mostly seen in the sheep and cattle farms, which have poor health conditions. It is endemic in the eastern and southwestern regions of Turkey. The big cysts seen in the lungs are called huge pulmonary cysts, and it is a particular clinical situation. The symptoms of the disease are cough, chest pain, dyspnoea, hemoptysis, or allergic reactions. The hemoptysis could be seen when these cysts rupture. The use of anthelmintic drugs to treat the pulmonary hydatid cysts could cause cyst rupture. The surgery must be the first choice of treatment. I reported two large pulmonary hydatid cysts in the left upper lobe of the lung that I treated with thoracotomy.

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Introduction

Peripartum cardiomyopathy (PPCM) is a rare disease that is difficult to diagnose and treat. It can be mortal. Its etiopathogenesis is not fully understood. The symptoms are similar to those in the physiological course of pregnancy. Herein, we report the case of a 32- year-old woman diagnosed with PPCM and treated with bromocriptine.

Case Report

A 32-year-old woman presented with dyspnea, orthopnea and haemoptysis 4 days after first delivery. Although hemodynamically stable, she had signs of pulmonary congestion. She had no past medical history. On auscultation, grade 3/6 systolic murmur radiating from apex towards axilla was heard. Electrocardiography revealed sinus tachicardia. Chest X-ray showed cardiomegaly. Arterial blood gas analysis was hypoxic and hypocarbic (pH: 7.54, pCO2: 31.3 mmHg, pO2: 77.8 mmHg). Serum BNP level was measured 766.6 ng/L. Transthoracic echocardiography

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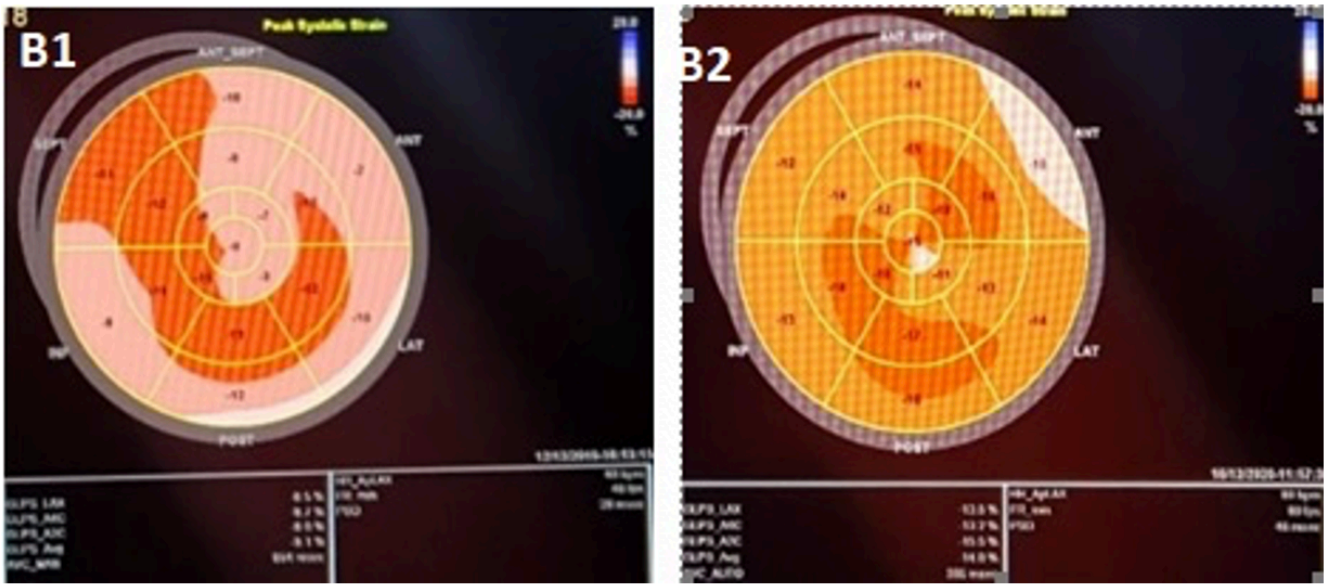

Figure 1. 2D Speckle strain echocardiography finding B1: at admission, B2: 6 months of follow-up

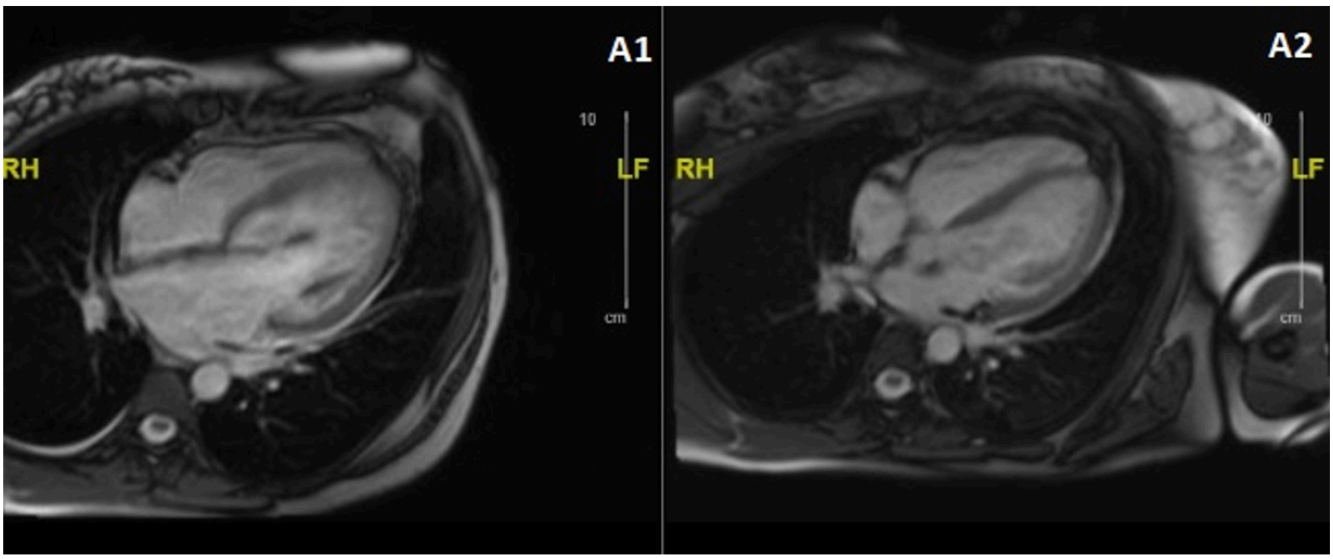

Figure 2. Cardiac magnetic resonance imaging findings show normalization in left heart size A1: at admission, A2: 6 months of follow-up

(TTE) indicated a dilated left atrium and a dilated left ventricle without hypertrophy, severe mitral regurgitation and ventricular dysfunction (left ventricular ejection fraction [LVEF], 30%) and general hypokinesia. The global longitudinal strain was –9.1% (Figure 1). Contrast-enhanced thorax computed tomography showed signs of effusion up to 3 cm thickness in the right pleural space, cardiomegaly, and pulmonary edema. There was no filling defect consistent with embolism in pulmonary arteries. Cardiac magnetic resonance imaging (MRI) was performed and revealed no pathological staining in the first pass images after the administration of contrast material. Mid-myocardial staining in patchy style was detected in late phase images taken at 10 minutes (Figure 2). Inhospital telemetry found no extrasystoles or arrhythmias. After treatment with diuretics, metoprolol, ramipril, ivabradine, spironolactone, enoxaparin and bromocriptine (planned as: 2.5 mg po twice a day for 15 days and then 2.5 mg po once a day for 15 days), she progressively improved and was discharged after 10 days. The clinical course was satisfactory; transthoracic echocardiography at first month revealed an improved LVEF (50%) and at 6 months, TTE revealed no dilatation in

cardiac chambers, also global longitudinal strain of –14% (Figure 1). Cardiac MRI indicated normal biventricular function and size, without delayed contrast enhancement (Figure 2) and serum BNP level was measured 15.6 ng/L.

Discussion

PPCM is an "idiopathic cardiomyopathy" and a rare form of congestive heart failure of unknown etiology. Demakis criteria and echocardiography findings are used in the diagnosis. The current diagnostic criteria for peripartum cardiomyopathy include: cardiac failure in a previously healthy woman in the last month of pregnancy or within 5 months of delivery, absence of etiology for heart failure. absence of a cardiac disease prior to last month of pregnancy, echocardiographic evidence of diminished left ventricular ejection fraction.[1]

Clinical course of PPCM may rapidly deteriorate, need for intensive care may develop, and it may even be mortal. In patients who do not progress mortally, heart failure may regress or become permanent. PPCM is not an indication for emergency delivery.

Increased pro-inflammatory cytokines and oxidative stress are thought to play role. Factors causing peripartum cardiomyopathy include cardiotrophic viruses, autoimmune diseases, toxins that cause immune system dysfunction, abnormal serum relaxin levels, selenium deficiency, presence of antibodies that respond abnormally to heart tissues and myocarditis.[2-6]

Some studies report the increase of 16 kDa prolactin hormone, which has antiangiogenic and proapoptotic properties.[3,7] It has been reported in the literature that bromocriptine can also be used with standard heart failure treatment in the treatment of these patients.[8] Although there is no consensus regarding the risk of recurrence of PPCM in subsequent pregnancies, Elkayam et al.[9] reported that 21% of the patients who regain normal ventricular function presented with heart failure in their next pregnancy.

PPCM should be considered in the differential diagnosis of patients presenting with symptoms of heart failure during the peripartum period and these patients may benefit from concomitant bromocriptine use with standard heart failure therapy.

Conflict of Interests

Authors declare that there are none.

Acknowledgment

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