CASE REPORT

Sheehan's syndrome with reversible dilated cardiomyopathy: A case report and brief overview

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Sheehan's syndrome is a rare condition characterized by post-partal panhypopituitarism due to necrosis of adenohypophysis resulting from severe post-partum hemorrhage. Lethargy, amenorrhea and failure of lactation are the usual presenting features. Cardiac involvement in Sheehan's syndrome is rare. The case presented here describes dilated cardiomyopathy in a 36-year-old lady who failed to respond adequately to the standard anti-failure treatment. Further investigation revealed the diagnosis of Sheehan's syndrome. Besides other manifestations, cardiac function reverted to normal after giving replacement therapy with glucocorticoid, levothyroxine and sex hormone. Physicians, specially those in developing countries, should have high index of suspicion for the diagnosis of Sheehan's syndrome while dealing with a case of 'peripartal dilated cardiomyopathy'. Persistent amenorrhea and failure of lactation may be important clues in this context. Timely diagnosis and appropriate treatment can lessen the sufferings of the patients.

Keywords: Sheehan, Hypopituitarism, Reversible, Cardiomyopathy

Introduction

Sheehan's syndrome is a rare condition characterized by post-partum panhypopituitarism due to necrosis of adenohypophysis resulting from severe post-partum hemorrhage. Lethargy, amenorrhea and failure of lactation are the usual presenting features. Cardiac involvement in Sheehan's syndrome is rare. The case presented here describes dilated cardiomyopathy in a 36-year-old female who failed to respond adequately to standard anti-failure treatment. Further investigation revealed Sheehan's syndrome. Besides other manifestations, cardiac function reverted to normal after replacement therapy with glucocorticoid, levothyroxine and sex hormone..

Case presentation

A 36-year-old non-diabetic female with history of childbirth 2 years prior, presented with progressive breathlessness, effort intolerance and

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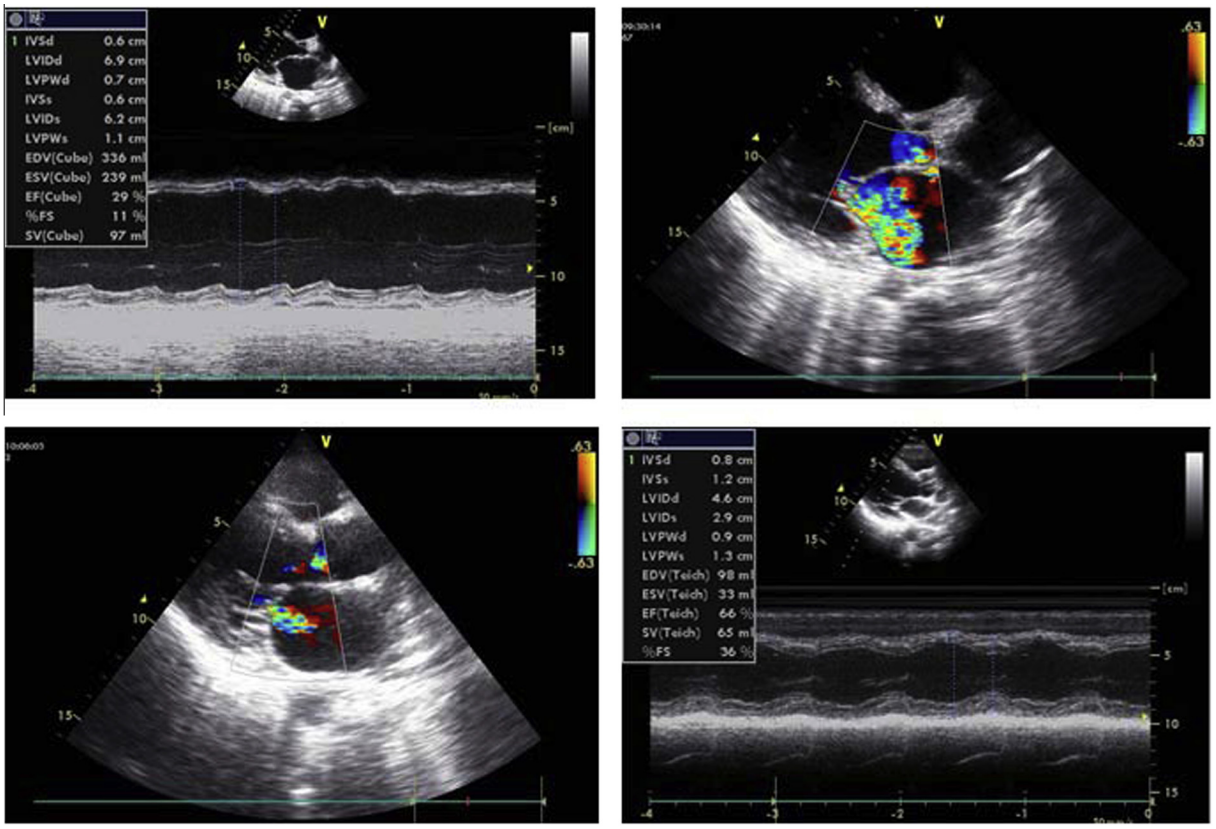

Figure 1. Echocardiography: At the time of diagnosis, dilated, severely hypokinetic LV, LVEF 29% in 2D guided M-mode image (upper left panel) and Grade III mitral regurgitation in 2D guided color flow imaging (upper right panel). One month after treatment, smaller left ventricular cavity with less severe MR in 2D guided color flow imaging (lower left panel). Six months after treatment, normal left ventricular cavity dimensions with normal LVEF in 2D guided M-mode imaging (lower right panel).

dependent edema over a period of 6 months. She was provisionally diagnosed as a case of peripartum dilated cardiomyopathy (DCM). Standard treatment was offered, and she was finally referred for further evaluation and management due to poor response to standard treatment. Physical examination revealed lethargy, pallor, sparse body hair, atrophied breasts, husky monotonous voice, dyspnea and leg edema. Her pulse was 68/min, blood pressure 90/60 mmHg, shifted, diffuse apex beat and third heart sound (S_3). Further enquiry revealed complicated, vaginal home delivery with severe, post-partum hemorrhage requiring 6 units of blood transfusion, followed by progressive effort intolerance, loss of libido, failure of lactation and amenorrhea. Her blood counts were normal with hemoglobin (Hb) 12.7 g/dl, normal iron profile, renal and hepatic functions, and serum electrolytes. There was cardiomegaly in chest X-ray (CXR), ascites in abdominal ultrasound (USG) and inverted T waves in precordial leads of electrocardiogram (ECG). Echocardiography showed dilated cardiac chambers with severe global left ventricular (LV) hypokinesia, severely impaired LV ejection fraction (LVEF 29%) and grade III mitral regurgitation (MR) (Fig. 1). Considering her history, inquiry into endocrine status revealed low thyroid stimulating hormone (TSH) (0.68 micro IU/ml; normal 0.47–5.01 micro IU/ml), low tetraiodothyronine (T_4) (0.86 µg/dl; normal 4.50–12.0 µg/dl), low follicle stimulating hormone (FSH) 3.22 m IU/ml, normal 4.0–13.0 m IU/ml, and low luteinizing hormone (LH). However, serum prolactin and ACTH levels were within normal limits. MRI showed empty sella. (Fig. 2) She was diagnosed as a case of Sheehan's syndrome with dilated cardiomyopathy. Along with diuretics, she was given ACE inhibitor, digoxin, and hydrocortisone, 100 mg six-hourly IV for 2 days followed by prednisolone 5 mg in the morning and 2.5 mg orally in the evening. This was followed by administration of increasing dose of oral levothyroxine, up to 100 µg/day. With this treatment, the patient's general wellbeing improved dramatically, breathlessness decreased, edema disappeared, and psychological status improved. She re-commenced menstruating, and, in her own words, she found her 'second life'. In