Sheehan's syndrome associated with reversible dilated cardiomyopathy in an elderly Nepalese woman

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ABSTRACT

Sheehan's syndrome is a rare complication of postpartum hemorrhage characterized by necrosis of the pituitary gland and panhypopituitarism. Failure to lactate and failure to resume normal menstrual cycle are some of the initial clinical presentations. Cardiac involvement in Sheehan's syndrome is rare. In this case report, we present a 52 year old woman with Sheehan's syndrome who developed dilated cardiac myopathy that did not respond to standard anti failure treatment. Replacement of deficient hormones reverted cardiac function to normal. Timely diagnosis of Sheehan's syndrome is important as appropriate treatment will normalize cardiac function.

Keywords: Dilated cardiomyopathy, Sheehan, panhypopituitarism

INTRODUCTION

Sheehan's syndrome is a rare complication of post partum hemorrhage characterized by necrosis of the pituitary gland andpanhypopituitarism. Sheehan first published his classic description of this condition in 1937. In a study conducted in Iceland the prevalence of Sheehan's syndrome was 5.1 per 100,000 women.[1]Failure to lactate and failure to resume normal menstrual cycle are some of the initial clinical presentation. Cardiac involvement in Sheehan's syndrome, although rare, has been described in a fewcases.[2,3] Here, we present a case of a 52 year old Nepalese lady with Sheehan's syndrome, who developed dilated cardiomyopathy that resolved after hormone replacement.

CASE PRESENTATION

A 52 yearold female with history of Sheehan's syndrome presented with weakness, lethargy, facial puffiness, postural dizziness, shortness of breath and dyspnea. The patient revealed that she was a diagnosed case of Sheehan's syndrome and had received treatment in India but had been off medication for the past several years. Physical examination was unremarkable except for mild pallor and facial puffiness. Endocrine tests revealed low FT4 0.19 (0.79 – 2.19) and low FT3 1.95 (2.77 – 5.22) with inappropriately normal TSH 1.01 (0.465- 4.68), low cortisol of 0.55 mcg/dl, normal FSH 8.31 IU/ml and normal prolactin 5.1 ng/ml. Echocardiography showed global left ventricular hypokinesia, poor LV ejection fraction (LVEF 36%) with mild mitral regurgitation and mild tricuspid regurgitation. MRI of the brain revealed partially empty sella.Other laboratory investigations were within normal parameters. Sophisticated stimulation tests to assess anterior pituitary function was not done as the diagnosis of Sheehan's was already clear and it was associated with dilated cardiomyopathy. Treatment with thyronorm (levothyroxine) 100 mcg once daily, emsolone (prednisolone) 5 mg once daily and spironolactone+ frusemide was started**.** After commencement of treatment, there was marked improvement in her symptoms. She regained her energy level, shortness of breath and dyspnea completely subsided and her overall general health improved. During subsequent follow ups, repeat echocardiography showed complete recovery (EF 68%) and serum free T4 was within normal limits. She was advised to continue thyronorm and emsolone at the same dose and spironolactone+frusemidewas discontinued.

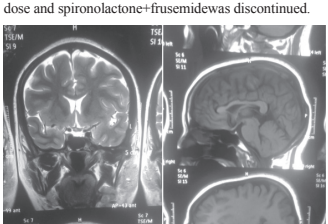

Fig 1: MRI of the brain; the pituita gland cannot be visualized

DISCUSSION

Pituitary gland enlargement during pregnancy is a normal physiologic change. Postpartum pituitary necrosis occurs in women who suffer severe post partum hemorrhage during delivery. The subsequent hypovolemic shock results in necrosis and infarction of the pituitary gland. The exact mechanism for the

ischemia is not certain. Vasospasm of the hypophyseal arteries, pituitary gland enlargement, autoimmunity are considered to play important roles in the pathogenesis of Sheehan's syndrome.[4] Loss of pituitary function may either be partial or complete. Due to improvements and advancements in obstetric care, Sheehan's syndrome has become rare in the developed world. However, it continues to remain one of the most common causes of hypopituitarism in developing countries [5].

Sheehan's presenting with reversible dilated cardiomyopathy is an uncommon presentation. Cardiac abnormalities associated with Sheehan's have been described earlier by few authors. Natarajan V and colleagues descrided a case of Sheehan's with reversible cardiomyopathy in a 31 year old female that completely resolved after appropriate hormone replacement[6]. ShrenikDoshi*et al.* reported a case of Sheehan's with reversible dilated cardiomyopathy (DCM) in a 42 year old female [7]. Hypothyroidism, adrenal insufficiency, growth hormone deficiency are some of the endocrine disorders that can cause heart failure that can reverse with hormone replacement[8]. Hypothyroidism is associated with impaired cardiovascular function with echocardiography features of pericardial effusion, decrease in wall thickness and cardiac output[9]. Replacement of levothyroxine has resulted in reversal of cardiac abonormalities found in hypothyroid patients[10].In our case, the patient was already a known case of Sheehan's, however, dilated cardiomyopathy was a late presentation. To the best of our knowledge such late presentation of DCM has not been reported in literature till date.

Dilated cardiomyopathy associated with Sheehan's is reversible iftreated for the deficient hormones. Accurate diagnosis of Sheehan's syndrome is extremely important as appropriate hormone replacement will normalize cardiac function.

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Errata

In NMCJ Vol.17, No. 1-2, March/June 2015 issue, Pg 88-90, case series titled " Burkholderia cepacia causing neonatal sepsis: a case series from a tertiary care hospital by Tiwari S,[1]Pattanaik S,[1] Kar A,[1] Beriha SS[2] should read as an original article titled "Burkholderia cepacia causing neonatal sepsis: a study from a tertiary care hospital".

The Editorial Board apologizes for the errors.