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Case Report

A case of Sheehan syndrome in early pregnancy

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ABSTRACT

Sheehan syndrome is also known as hypopituitarism due to necrosis of the anterior pituitary gland due to hypotension or shock, secondary to postpartum bleeding. It generally occurs in postpartum bleeding after a full-term delivery as there is physiological hyperplasia of the pituitary gland which demands more blood supply. After severe postpartum haemorrhage, there is inadequate blood supply to the pituitary gland which results in necrosis of the gland. The first and most common symptom of Sheehan syndrome is absence of lactation. Other symptoms may include amenorrhoea, hot flashes. Sheehan syndrome is still a significant cause of morbidity and mortality in less developed countries. The diagnosis of Sheehan syndrome may not present immediately after birth. But rarely, it can be seen in the first trimester due to incomplete abortion. In our case a 35-year female G5P4L4 with one month and fifteen days of amenorrhoea came with complain of bleeding per vaginal and severe generalised weakness. After stabilisation patient was evaluated and it came to know that patient has hypopituitarism.

Keywords: Sheehan syndrome, Hypopituitarism, Physiological hyperplasia, Necrosis

INTRODUCTION

Sheehan syndrome is postpartum anterior hypopituitarism caused by necrosis of the pituitary gland. It results from severe hypotension or shock secondary to bleeding postpartum.[1] It is not so common in developed countries but it's still frequent in underdeveloped and developing countries. In most cases, it is diagnosed late as clinical features like failure to lactate, cessation of menses, loss of axillary and pubic hair, breast atrophy and loss of libido are seen late.[2] Prompt suspicion of Sheehan syndrome based on the patient's presentation either with hypotension or hypoglycaemia or shock secondary to postpartum bleeding.3 Also MRI findings suggestive of an empty Sella sign or partially empty Sella sign help to diagnose Sheehan syndrome as early as possible.[4]

CASE REPORT

A 35-year-old G5P4L4, married for 10 years with 1 month 15 days amenorrhea came to our hospital with complaints of bleeding per vagina for 2 to 3 hours, dizziness, and weakness. The urine pregnancy test was weakly positive. The patient was conscious and oriented to time Place and person but' had pallor with hypotension with systolic blood pressure of 50 mmHg pulse rate of 126 bpm and saturation was 98% on room air. The patient was given a packed cell transfusion and intravascular fluid and put on ionotropic support to raise blood pressure.

Simultaneously, the patient was taken for check curettage after which she was shifted to ICU. Blood reports were Hb. 5.2 gm%, TLC.13800, Platelets.[3] lacs, BUN.16.90, Creatinine.0.85, RBS.59, T3. 0.36, T4. 5.79, TSH.2.22,

serum cortisol level.17.50, LH. 0.16. After stabilization, an MRI of the brain showed a partially empty Sella (fig 1 & fig 2).5 She was treated for hypoglycaemia and hypotension with dextrose saline and hydrocortisone. Injection of hydrocortisone 200mg given loading dose followed by infusion of 200 mg over 24 hours. The patient responded well to hydrocortisone. On discharge patient was prescribed tab prednisolone 5 mg.

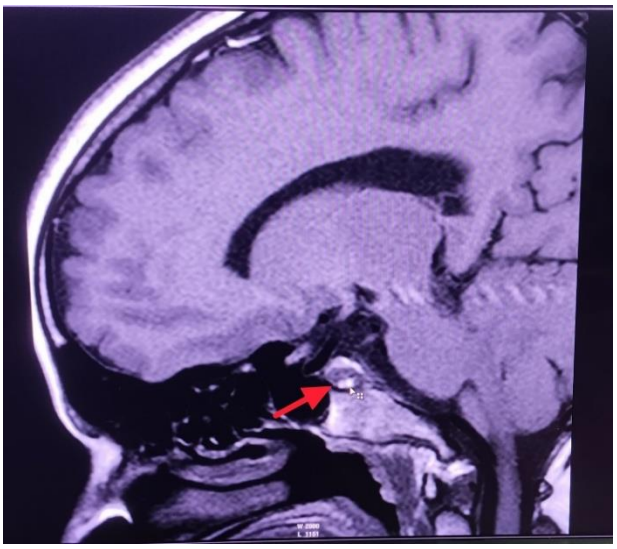

Figure 1: Pituitary adenoma.

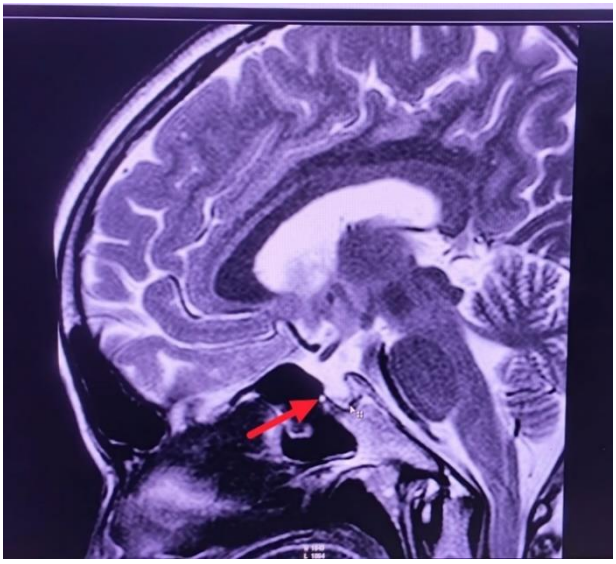

Figure 2: Pitutary macroadenoma.

DISCUSSION

Sheehan's syndrome is panning hypopituitarism characterized by anterior pituitary necrosis after postpartum bleeding which leads to hypotension, hypoglycaemia, and shock. Hypertension, vasospasm, and compression of pituitary arteries can cause Sheehan's syndrome. The anterior pituitary is more commonly affected in Sheehan's syndrome as it has a low-pressure venous system. Also, the size of the pituitary gland increases during pregnancy to meet the normal physiological demands of pregnancy. Enlargement of the pituitary gland is mainly due to hyperplasia of lactotrophs. Sheehan's syndrome may present as panhypopituitarism or selective loss of pituitary function. Growth hormone and prolactin are most commonly affected in selective hypopituitarism. Rarely diabetes insipidus can be seen in Sheehan's syndrome. It can be present in acute or chronic form but chronic presentation is more common. Sheehan's syndrome mainly presents with symptoms of hypothyroidism like generalized weakness, asthenia easy fatiguability, weight gain, and hair loss. On examination hypotension and low heart rate can be found. The secondary form of adrenal insufficiency caused by ACTH deficiency leads to hypercortisolism which can be manifested as weight loss and fatigue.[6]

Acute forms mainly present as lactation failure. Some women may present with irregularity in menses after childbirth. Acute presentation can be dangerous if it is not diagnosed early and treated accordingly. Persistent hypotension and tachycardia with hypoglycaemia can help to reach the diagnosis.

Biochemical diagnosis of pituitary insufficiency is made by demonstrating low hormone levels which are secreted from the pituitary gland. Thyroid function test shows low thyroxine with normal or low TSH level. Also, LH and FSH show decreased blood levels.

Growth hormone deficiency can be tested with an insulin tolerance test, growth hormone releasing hormone (GHRH) test, L-arginine test, and L dopa test. Prolactin levels can be tested with the TRH hormone test.[7] Serum ACTH hormone level is tested by insulin tolerance test.[8] And Corticotropin-releasing hormone test. Management of hypopituitarism is nothing but the lifelong replacement of deficient hormones.

Gonadotrophin deficiency can be replaced with estrogen and progesterone and if the uterus has been removed it can be treated with only estrogen. Growth hormone deficiency is treated with regular injections of synthetic human growth hormone. Hypothyroidism is treated with thyroxine. Cortisol deficiency is treated with prednisolone or hydrocortisone.

CONCLUSION

Sheehan syndrome often presents with delayed onset of clinical features, which can result in late diagnosis. This delay in recognition can expose patients to severe complications, such as myxoedema coma due to thyroid dysfunction, hypoglycaemic episodes that may lead to loss of consciousness, and an increased risk of mortality from cardiovascular and cerebrovascular complications. The risk of these serious outcomes underscores the importance of early identification and intervention.

To facilitate early diagnosis, clinicians should obtain a comprehensive medical history focused on identifying potential causes of hypotension or shock, especially in the postpartum period. Rigorous monitoring of vital signs is essential to detect signs of endocrine dysfunction early. Additionally, the MRI brain plays a crucial role in confirming the diagnosis by identifying characteristic pituitary gland abnormalities associated with Sheehan syndrome. Early diagnosis and prompt management can prevent serious complications and improve long-term outcomes for patients with Sheehan syndrome.

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