ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 16, Issue, 05, pp.28184-28186, May, 2024
DOI: https://doi.org/10.24941/ijcr.47158.05.2024

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

SHEEHAN'S SYNDROME PRESENTING AFTER 18 YEARS OF ISCHEMIC INSULT AS ADRENAL INSUFFICIENCY AND UNMASKING OF DIABETES INSIPIDUS: A CASE REPORT.

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ARTICLE INFO

Article History:
Received 10th February, 2024
Received in revised form
15th March, 2024
Accepted 24th April, 2024
Published online 20th May, 2024

Key words:

Adrenal Insufficiency,
Diabetes Insipidus.

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ABSTRACT

Introduction: Sheehan's syndrome is hypopituitarism due to pituitary gland necrosis resulting from hemorrhagic shock during pregnancy. It is a rare complication with varied manifestations and a considerable delay in diagnosis. **Case Presentation:** We present the case of of a 38 year old woman, who presented to emergency with complaints of acute abdomen and decreased sensorium. She had no previous treatment history. On haematological and radiological assessment, she was diagnosed to be a case of Sheehan's syndrome with primary insult 18 years back. **Investigations:** Patient was investigated for all the hormonal axis- LH, FSH, Estradiol for HPO axis , Thyroid Profile, ACTH and Cortisol for HPA axis. Brain imaging using Pituitary protocol was done, which found complete Empty sella. **Discussion**: Patient was treated with replacement therapy for steroid and thyroid axis, which lead to unmasking of Diabetes Insipidus as free water clearance improved, desmopressin supplementation. There was a rapid improvement in patient outlook within one week of institution of therapy. **Conclusion:** Previous case reports describe patients being diagnosed after one or more complications from long-term panhypopituitarism. The present case illustrates that undiagnosed Sheehan's syndrome is associated with long-term morbidity, and we want to emphasize that a high index of suspicion is crucial for the early diagnosis of the syndrome in routine clinical visits in order to prevent complications arising with delayed diagnosis. Awareness among clinicians is also essential so that such cases are not overlooked, especially in developing nations, where home delivery is still common and obstetric care is limited.

Citation: ***Dr. Siddhant Rajput, Dr. Hamid Ashraf and Prof. Zafar, K.S.*** **2024.** "Sheehan's syndrome presenting after 18 years of ischemic insult as adrenal insufficiency and unmasking of diabetes insipidus : a case report..*". International Journal of Current Research*, 16, (05), 28184-28186.

INTRODUCTION

Sheehan's syndrome (SS) is postpartum hypopituitarism caused by necrosis of the pituitary gland. It is usually the result of severe hypotension or shock caused by massive hemorrhage during or after delivery. Patients with SS have varying degrees of anterior pituitary hormone deficiency.(1) Vasospasm, thrombosis and vascular compression of the hypophyseal arteries have also been described as possible causes of the syndrome. Enlargement of pituitary gland, small sellar size, disseminated intravascular coagulation and autoimmunity have been suggested to play a role in the pathogenesis of SS.(2)

CASE PRESENTATION

Naina, 38 year old female, presented to the emergency of JNMCH with the complaints of acute abdominal pain, nausea for the last 3 days and decreased sensorium for the last one day. Patient had no prior medical history of any long standing chronic illness or hospital admissions.

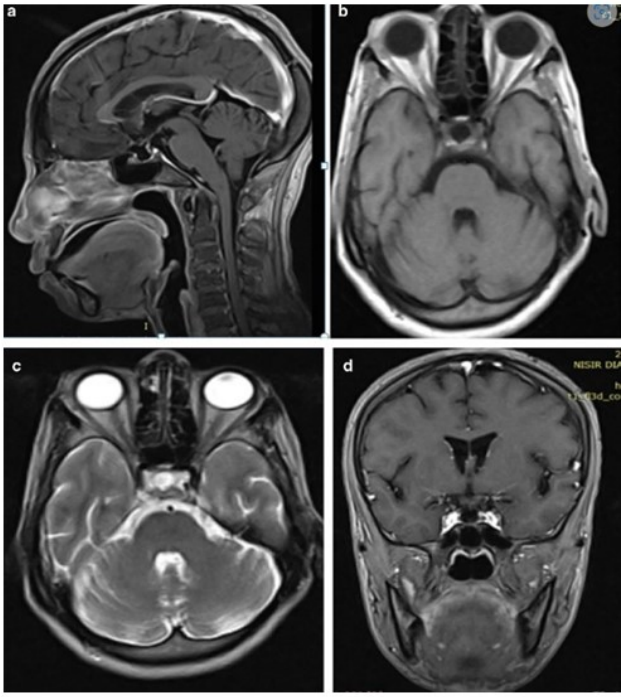
OBSERVATION AND INVESTIGATION

On examination,the patient had pale colored skin with signs of dehydration, the patient had non significant CNS, per abdomen, CVS examination. The BP of the patient was on lower side with 84/50 on presentation, RBS – 21mg/dl, serum Na- 103meq/L, K-2.8,iCa-0.56. On hemogram the patient had a picture of Pancytopenia with Hb- 8.9g/dl MCV-83fl RDW-15% TLC of 3100 with 68 % polymorphs, 25% lymphocytes, Platelet count of 1 lac. The Renal and Liver function test were normal. On detailed history of the patient, patient had a history of severe PPH 18 years back during delivery of her last child, following which failed to lactate and developed secondary amenorrhea. Patient also lost her axillary and pubic hair after delivery.

DIAGNOSIS

Patient was evaluated for all the hormonal axis to diagnose pituitary insufficiency or adrenal insufficiency. Thyroid Profile was suggestive of Central Hypothyroidism (T3 0.8 T4.6 TSH 0.8).

S. ACTH and S. Cortisol values were below threshold values (Cortisol 3.1, ACTH-5). S Estradiol and FSH were also below normal values (Fsh-3.5 estradiol-5.1). Urine output was 4L in 24 hours and urine osmolality was 243mosm/L. HbA1c was 5.4%. APS were ruled out. Pituitary insufficiency secondary to PPH was evaluated as the primary diagnosis. MR Brain imaging was consistent with the diagnosis showing Near complete sella with minimal residual tissue in posterior pituitary.



TREATMENT

Patient was hydrated with DNS 2L to correct the hyponatremia and hypoglycaemia. Hydrocortisone 300mg iv was started on day 1 which was gradually down titrated to oral steroid. Thyroid Hormone were replaced with 50ug of Eltroxin. After the Steroid and Thyroid status of patient was corrected, free water clearance improved drastically leading to unmasking of Diabetes Insipidus, so oral desmopressin 0.1mg was started. Gonadotropin replacement was not done as patient did not desire any further fertility and had no complaint of dyspareunia. Growth Hormone replacement was planned in followup after improvement in general condition of patient.

DISCUSSION

SS can present in the postpartum period with lactation failure or after many months to years following the inciting delivery. In many affected women, anterior pituitary dysfunction is not diagnosed for many years. In a study of 60 patients, the average time between the previous obstetric event and diagnosis of SS was 13 years.(2) Characteristic manifestations include failure to lactate or to resume menses, genital and axillary hair loss, asthenia and weakness, fine wrinkles around the eyes and lips, signs of premature aging, dry skin, hypopigmentation and other evidence of hypopituitarism. The absence of amenorrhea or the presence of postpartum lactation, however, does not rule out the diagnosis.(3) Uncommonly, it can present acutely with circulatory collapse, severe hyponatremia, diabetes insipidus, hypoglycemia, congestive cardiac failure or psychosis (4). Hematological abnormalities are common and include normocytic normochromic anemia, pancytopenia, and acquired factor VIII and von Willebrand factor (aFVIII–VWF) deficiency (5).

The extent of anterior pituitary dysfunction varies in different series. The main involvement was the secretion of growth hormone (GH) and prolactin (90–100%), while deficiencies in cortisol secretion, gonadotropin and thyroid stimulating hormone (TSH) ranged from 50 to 100%.(6) At least 75% of pituitary must be destroyed before clinical manifestations become evident. GH deficiency is very common in SS because somatotrophs are located in the lower and lateral regions of the pituitary gland and are most likely to be damaged by ischemic necrosis of the pituitary (7). The general principle of treatment of hypopituitarism holds good for the treatment of SS also. The goal of therapy is to replace deficient hormones. Treatment is important not only to correct endocrine abnormalities, but also to reduce mortality due to hypopituitarism (1). In patients who have both secondary hypothyroidism and hypocortisolism, glucocorticoids should be replaced before the replacement of thyroid hormone. Gonadotropin deficiency and hypogonadism should be treated with a hormone replacement therapy.(1,8) Patients who wish to become pregnant may be directed to the service of fertility for ovulation induction followed by successful pregnancy. For patients with diabetes insipidus, treatment of choice is 1-desamino-8-d-arginine vasopressin or desmopressin (DDAVP).(9) Replacement of GH should be considered in patients with GH deficiency.

Dosage of GH needs to be individualized. GH should be started on a low-dose regimen (0.1–0.3 mg/d) and titrated upward by 0.1 mg/d per month with careful monitoring.

CONCLUSION

Thus, although it is rare, a high index of suspicion for Sheehan's syndrome by primary care physicians is warranted in patients with an obstetric history of intrapartum or postpartum hemorrhage. Sheehan's syndrome is associated with increased morbidity and mortality if not diagnosed early. A detailed medical history and physical examination supported by laboratory tests is still the cornerstone of diagnosis, reminding clinicians to keep in mind rarely reported diseases like Sheehan's syndrome. Increased awareness and timely diagnosis can help patients avoid a poor quality of life that can span several years and can prevent precipitating complications.

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