

Sheehan's syndrome presenting as psychosis: a rare clinical presentation

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Abstract

Sheehan's syndrome (SS) refers to the occurrence of varying degree of hypopituitarism after parturition (1). It is a rare cause of hypopituitarism in developed countries owing to advances in obstetric care and its frequency is decreasing worldwide. However, it is still frequent in underdeveloped and developing countries. Sheehan's syndrome is often diagnosed late as it evolves slowly (2,3). Reports of psychoses in patients with Sheehan's syndrome are rare. Herein, a case report of psychosis in a 31 year old woman who developed Sheehan's syndrome preceded by postpartum haemorrhage is presented. Treatment with thyroxine and glucocorticoids resulted in complete remission after attaining euthyroid and eucortisolemic state.

Keywords: Hypopituitarism, Psychosis, Sheehan's syndrome, Thyroxine.

Introduction

Sheehan's syndrome (SS) is an adrenal-pituitary insufficiency from hypovolemia secondary to excessive blood loss during or after delivery. It may present in post-partum period or several years after delivery (4). Abnormalities of hypophyseal arteries including external compression, vascular spasm and thrombosis have been implicated in SS. In the pathogenesis of SS, various factors have been proposed viz, autoimmunity, enlargement of pituitary gland, disseminated intravascular coagulation and small sized

sella (3). A study by Zargar A. H. et al from the Kashmir valley of the Indian subcontinent estimated the prevalence to be about 3% for women above 20 years of age, almost two-thirds of whom had delivered babies at home (2). However, it is a rare cause of hypopituitarism in developed countries. Another study has shown that out of 1034 hypopituitary adults, SS was the sixth most frequent cause of growth hormone deficiency (GHD), being responsible for 3.1% of cases (5).

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Case report

A 31 year old Muslim female patient, housewife by occupation, reported to our department of psychiatry accompanying her family members with recent onset of aggressive behavior with friends and family. On detail enquiry, her family members revealed that they have noticed a change in her behavior for the last four months which apparently started about 16 -18 days after her first delivery. The complaints included use of abusive language, fearfulness, talking to self, absconding tendencies, dressing unusual clothes, and history of persecutory ideas, saying that her friends and family members are spying against her and they are planning to hurt her. She also complained of hearing voices conspiring against her. Recently her sleep pattern has also become quite irregular, sleeping for only few hours a day, and not doing house hold work. She neglected her personal hygiene as well as her child's care. Patient had a full term hospital delivery with history of postpartum haemorrhage during the delivery. There was failure of lactation after her delivery and since then she had amenorrhea. There was no past history of any psychiatric or neurological illness in her or any of her family members. She was neither a smoker nor a drinker and had never abused illicit drugs. There was not any past forensic record related to her. Her family members had attended various faith healers, and surprisingly not consulted any doctor for her abnormal behaviour. On general physical examination, she looked pale and anaemic; breast atrophy was present; as were features of hypothyroidism. She was afebrile, and vital signs were normal. She was oriented to

time, place, and person. Neurological examination revealed bilateral up going plantars. Her gait was normal. Mental status examination revealed her appearance as unkempt, apathetic and uncooperative. Her speech was largely irrelevant and incoherent. Thought had persecutory delusions. Her memory was intact. However, her performance in attention and concentration tasks and verbal fluency tests were unsatisfactory. She had no insight and had no understanding of why she was brought to hospital and her social judgment was poor.

Laboratory investigation including renal function, liver function as well as workup for inflammatory and infectious conditions did not reveal any abnormalities. Her Hormonal profile revealed low levels of serum T₃, T₄, Cortisol, FSH & LH as given in table 1.

Ultra sonogram (USG) of abdomen and pelvis showed small atrophic uterus with shrunken ovaries and computed tomographic scan of brain showed partially empty sella. Thus the diagnosis of Sheehan's syndrome was confirmed. Patient was put on olanzapine 10 milligram for 1 week but did not show any significant improvement and then was later shifted to prednisolone 5 mg/day and thyroxine sodium 100 ug/day. Over a period of few weeks, there was improvement of all her physical and psychiatric symptoms. Patient was given counselling about continuation of treatment for her life time and importance of maintaining a regular follow-up.

Discussion

The diagnosis of Sheehan's syndrome is based on history of postpartum hemorrhage

Table 1. Laboratory findings in the patient presented.

Hormone	T ₃	T ₄	TSH	S.Cortisol	FSH	LH
Normal value	[70-20 µg/dl]	[5.5-13.5 µg/dl]	[0.2-4.5 µIU/ml]	[5-23 µg/dl]	[3-10 µIU/ml]	[5-18 µIU/ml]
Patient's value	49.3 Decreased	2 Decreased	4.17 Normal	0.5 Decreased	2.1 Decreased	0.79 Decreased

- µIU/ml = micro-unit per milliliter
- ng/dl = nano-grams per deciliter
- µg/dl = micro-grams per deciliter

followed by complete anterior pituitary failure with demonstration of empty sella on MRI pituitary. Enlargement of Pituitary gland occurs during pregnancy and postpartum hemorrhage can result in ischemic necrosis of anterior pituitary resulting in hypopituitarism (1). Sheehan's syndrome can present in the postpartum period or after many months to years following delivery. A study of 60 patients has shown the average time between the previous obstetric event and diagnosis of sheehan's syndrome to be 13 years (6). Patients usually present as failure to lactate or amenorrhoea, 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. However, it can present as emergencies like circulatory collapse, severe hyponatremia, diabetes insipidus, hypoglycemia, congestive cardiac failure or psychosis (7). Ozkan and Colak reviewed 20 cases of Sheehan's Syndrome; 3(15%) presented with hypoglycemia, 3(15%) with hypothyroidism, 1(5%) with hyponatremia, 6 had empty sella and 9 had partial empty sella (4). Psychoses in SS has received little attention due to rarity of the disorder in the western countries. Kale K, Nihalani N, et al reported first postpartum psychosis in a case of Sheehan's syndrome (8). We present a case of psychosis in a patient of SS. She developed Sheehan's syndrome preceded by postpartum haemorrhage. There is a sudden drop in the levels of hormones leading to a relative deficiency of these hormones during postpartum which may be responsible for some of the psychiatric symptoms (9). The antipsychotics may be necessary as an adjunct in the initial stages or when the pa-

tient shows psychotic symptoms (10). Treatment with thyroxine and glucocorticoids resulted in complete recovery after attaining euthyroid and eucortisolemic state.

Conclusion

Psychosis in patients with Sheehan's syndrome is uncommon. Clinicians should have a high index of suspicion in case of postpartum-psychosis presenting with significant obstetric history. This case report emphasizes the importance of a meticulous history taking and examination in patients of postpartum psychosis.

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