

Pericardial Effusion in a Postpartum Female: A Rare Presentation of Sheehan's Syndrome— A Case Report

Authors: Dr.Manna Bhattacharjee, Dr.Prakash Durubesula,

Dr.Vishvajit Wakade

Corresponding: Dr.Prakash Durubesula.

Abstract: Sheehan's Syndrome, characterized by hypopituitarism resulting from postpartum pituitary necrosis, can present with a myriad of symptoms, making diagnosis challenging [1,2,3]. We present a case of a 34-year-old female with a history of postpartum hemorrhage who presented with symptoms of fatigue, dyspnea, and pericardial effusion on 2D echocardiography. Despite multiple clinic visits over three years, the diagnosis remained elusive until extensive evaluation revealed central hypothyroidism, low cortisol, FSH, LH, and prolactin levels. MRI confirmed partial empty sella, consistent with Sheehan's Syndrome. Hormonal replacement therapy led to significant clinical improvement, highlighting the importance of early recognition and appropriate management [4,5,6,7,8].

Introduction: Sheehan's Syndrome, first described in 1937, is a rare but potentially life-threatening complication of postpartum hemorrhage characterized by pituitary necrosis and subsequent hypopituitarism [9,10,11]. It presents with diverse symptoms, often leading to delayed diagnosis [12,13,14,15]. We present a case highlighting the diagnostic challenges and management of Sheehan's Syndrome in a postpartum female presenting with pericardial effusion.

Case Presentation:

A 34-year-old female, married for 12 years with a history of G3P3L2 obstetric events, presented to the cardiology department with a chief complaint of easy fatigability persisting for 34 months, accompanied by myalgia. She reported exertional palpitations and shortness of breath for 24 months, occasional dizziness upon standing, and hoarseness of voice over the past four months. Notably, her last childbirth, three years prior, was complicated by postpartum hemorrhage (PPH), for which she received prompt medical attention after one hour at a nearby hospital. Despite being conscious, she presented with shock. The PPH was controlled, and she received two units of packed red blood cells the following day. During her hospitalization, she experienced a headache, which subsided with medication, and she was discharged after three days.

Following the delivery, the patient experienced a transient improvement but began to experience worsening symptoms two months later. These included associated weight loss, anorexia, cold intolerance, myalgia, arthralgia, and progressive loss of axillary and pubic hair. Over the past month, her symptoms had exacerbated, with the development of generalized weakness, extreme fatigue even at rest, excessive sleepiness, and mild to moderate intermittent headaches. Notably, she denied any history of head trauma, surgery, or irradiation, as well as polyuria or polydipsia. Despite multiple visits to clinics over the past three years, a proper diagnosis had not been established.

Upon examination, the patient appeared pale with a low-volume pulse and muffled heart sounds on auscultation. Her electrocardiogram (ECG) revealed a normal sinus rhythm with low voltage complexes. Suspecting a pericardial effusion, a 2D echocardiogram was performed, revealing a large pericardial effusion without signs of tamponade [Figure1]. Considering her history of postpartum hemorrhage, uncontrolled PPH, and symptoms of lethargy and weakness, Sheehan syndrome was considered as a potential differential diagnosis. Further investigations revealed anemia, central hypothyroidism, and decreased levels of serum cortisol, FSH, LH, and prolactin. MRI of the pituitary confirmed the diagnosis, showing partial empty sella. [Figure 2]

Upon confirmation of the diagnosis of Sheehan's Syndrome, the patient was managed conservatively for pericardial effusion and initiated on hormonal replacement therapy as per endocrinology advice. She was rehydrated with one bag of normal saline (NS) and started on prednisolone 2.5 mg in the evening and 5 mg in the morning, along with levothyroxine 75 µg/day, to be titrated based on clinical response.

The patient was counseled on the chronic nature of her illness and instructed to adhere to the prescribed medications for the rest of her life. She was referred to an endocrine clinic for further management and discharged with instructions for follow-up.

On subsequent clinical assessment, the patient reported improvement in symptoms. Abdominal pain, nausea, vomiting, and diarrhea had subsided, her appetite had returned, and she had started to gain weight. Additionally, follow-up imaging showed a significant reduction in pericardial effusion size. The patient continues to be monitored closely and receives ongoing hormonal replacement therapy to manage her condition effectively.

Discussion:

Sheehan's Syndrome, a rare but significant complication of postpartum hemorrhage, occurs due to pituitary necrosis secondary to ischemia[16]. It presents with a wide array of symptoms, often leading to diagnostic challenges. In this case, the patient's presentation was complex, with symptoms spanning over several years and involving multiple systems. The delay in diagnosis highlights the importance of considering rare endocrine disorders, such as Sheehan's Syndrome, in postpartum women with a history of hemorrhage and suggestive symptoms.

The patient's clinical presentation was consistent with hypopituitarism, characterized by fatigue, dyspnea, pericardial effusion, anemia, central hypothyroidism, and hormonal deficiencies. The partial empty sella observed on MRI further supported the diagnosis. Prompt initiation of hormonal replacement therapy was crucial for managing the patient's symptoms and preventing complications associated with hypopituitarism[17,18,19].

This case underscores the importance of a comprehensive evaluation and a high index of suspicion in postpartum women presenting with nonspecific symptoms. Clinicians should consider Sheehan's Syndrome in the differential diagnosis of patients with a history of postpartum hemorrhage and suggestive symptoms, as early recognition and appropriate management are essential for improving patient outcomes and preventing long-term complications.

Conclusion: Sheehan's Syndrome should be considered in the differential diagnosis of pericardial effusions, especially in postpartum women with a history of hemorrhage. Early recognition and hormonal replacement therapy are crucial for preventing complications associated with hypopituitarism. This case underscores the importance of heightened clinical suspicion and thorough evaluation in similar presentations. This case highlights the importance of considering rare endocrine disorders, such as Sheehan's Syndrome, in the differential diagnosis of pericardial effusions, especially in postpartum women.



Figure 1: PLAX view showing large pericardial effusion

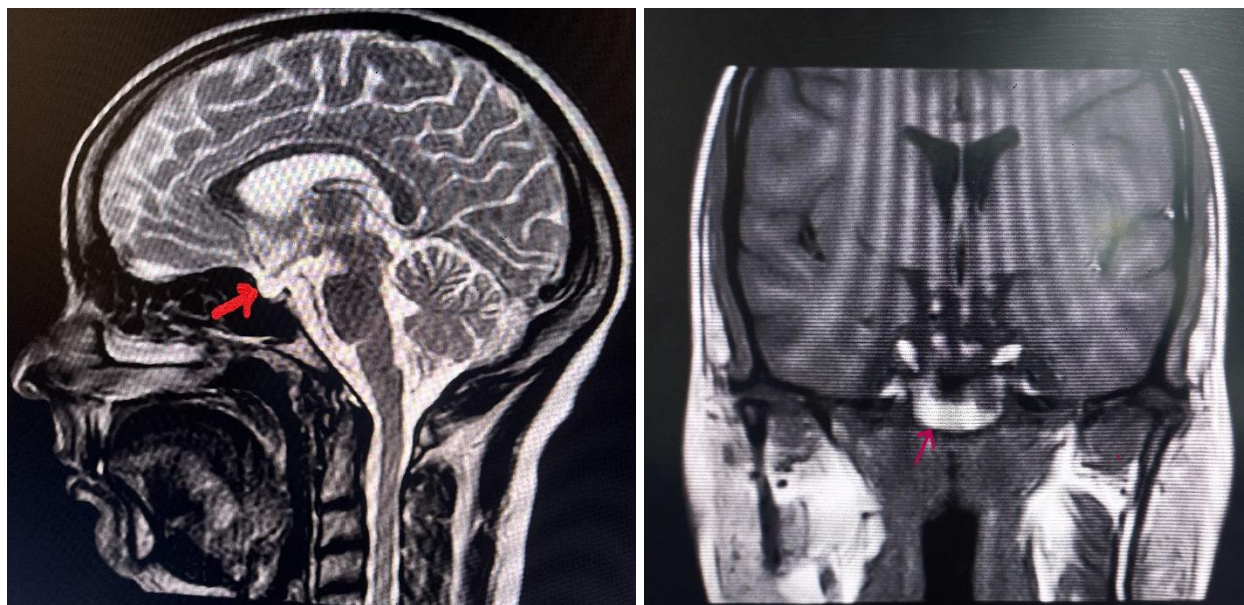


Figure 2: MRI BRAIN CORONAL AND SAGITTAL VIEW SHOWING PARTIAL EMPTY SELLA

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