A CASE REPORT ON SHEEHAN’S SYNDROME WITH IRON DEFICIENCY ANAEMIA- A HAEMATOLOGICAL PERSPECTIVE OF PANHYPOPITUITARISM

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ABSTRACT

BACKGROUND

SS occurs due to ischaemic pituitary necrosis after severe Postpartum Haemorrhage (PPH) and is characterised by typical history of severe postpartum blood loss, hypotension or shock, postpartum lactation failure, discontinuation of the menses after the delivery, partial or complete anterior pituitary insufficiency and empty sella on CT or MRI.1,2,3,4 Although unclear, anaemia is well recognised as a feature of hypopituitarism.

KEYWORDS

Sheehan’s Syndrome, Panhypopituitarism, Iron Deficiency Anaemia, Hormone Replacement Therapy.

BACKGROUND

Case Presentation- A 35 years old Mising community woman hailing from rural area attended casualty with complaints of fever and altered sensorium with features of diarrhoea for one day. On examination, there was pallor and blood pressure was 90/60 mmHg. There were no signs of meningism. An immediate CT brain was done, which was apparently normal with no features of cerebral oedema. There was no history of DM, TB or HTN. Initial resuscitation was done and the patient got symptomatically better on the next day. On further enquiry, she had PPH during last childbirth, which was conducted at home 5 yrs. ago and there was lactational failure and cessation of menstruation till date. Laboratory test revealed Iron deficiency anaemia with Hb%=6 gm% having microcytic hypochromic picture in PBS, TIBC=545 mcg/dL, Se ferritin=7.1 ng/dL. TLC was 5500/cumm with PMN=70%. Serum electrolytes were within normal range with a bit low Se Na+= 124 mmol/L. Free thyroxine was low at 1.6 pmol/L with TSH of 0.3 mIU/mL. Her prolactin level was 1.8 μg/L. The diagnosis of Sheehan's syndrome was made after a pituitary MRI showing an empty sella. Replacement therapy with L-thyroxine, hydrocortisone and blood transfusion was done during hospital stay for about 3 weeks. Patient got improved and was discharged with L-thyroxin tablets, oral steroid and iron pills.

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Figure 1. Sagital Section of Pituitary MRI Showing Empty Sella

DISCUSSION

Sheehan’s syndrome is diagnosed based on patient’s history, physical examination and confirmed by laboratory tests and brain imaging study. Laboratory tests revealed many other anomalies such as hyponatraemia, which is the most common electrolyte imbalance occurring in 33% to 69% of cases.5 Cortisol deficiency, hypothyroidism and volume depletion are the main causes of hyponatraemia. Sheehan’s syndrome has also haematological consequences to which little attention is paid because it is rare. Anaemia is well-recognised as a feature of hypopituitarism. Very few
scientists have reported haematological abnormalities in Sheehan's syndrome. Many hormonal deficiencies such as hypothyroidism, adrenal insufficiency and gonadal hormonal deficiency can explain normochromic anaemia in hypopituitarism. It can be the result of a physiologic adjustment to lower oxygen requirement as pituitary hormones modulate the production of erythropoietin in the kidney. The low erythropoietin levels found in these patients support this argument. However, iron deficiency anaemia with low Se ferritin level is rarely observed in patients affected with Sheehan's syndrome.

A literature review revealed the rarity of this disorder. The first case was reported by Ferrari et al in 1976. Some case reports showed the coincidental finding of pancytopenia and bone marrow aplasia with SS. Gokalp et al have recently reported haematological abnormalities in 65 patients with Sheehan's syndrome where there were significantly higher rates of anaemia (80.0% vs. 25.5%, p = 0.0001), iron deficiency (44.6% vs. 5.4%, p = 0.001), leucopenia (20.0% vs. 5.4%, p = 0.015), thrombocytopenia (9.2% vs. 0.0%, p = 0.028) and bicytopenia (21.5% vs. 1.8%, p = 0.001) compared to controls. The mechanism by anterior pituitary insufficiency can lead to iron deficiency anaemia or pancytopenia or even bone marrow aplasia is not clear even till now. Treatment with thyroxin and glucocorticoids led to full haematological recovery in all published cases. For our patient, haematological recovery was obtained after two months.

CONCLUSION
Iron deficiency anaemia is a rare feature of Sheehan's syndrome. Multiple anterior pituitary hormone deficiencies in Sheehan's syndrome can be responsible for it. A simple replacement therapy with thyroid hormone and cortisol and iron supplement result in complete recovery.

REFERENCES