Empty Sella Syndrome: A case report

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INTRODUCTION
Empty sella syndrome denotes the radiographic appearance of an enlarged sella turcica that is partially or completely filled with cerebrospinal fluid2. This results in compression and displacement of the pituitary gland. It can be primary or may be secondary to pituitary surgery, irradiation, infarction or hemorrhage3.

CASE REPORT
A 38 years old, multiparous lady presented with complaints of persistent headache, giddiness and fatigue since 5 years. Past history revealed that she suffered from severe post-partum hemorrhage with shock 5 years back during her second pregnancy, for which she was given multiple blood transfusions. She had attained menopause since last 5 years. On examination, clinically her vitals were stable, except for blood pressure in lower normal range; there was facial puffiness, breast examination was normal and there was no visual field defect or neurological defect. She was subjected to routine complete blood count and biochemical blood tests which showed–Serum sodium-118 mmol/L and serum potassium-1.7 mmol/L. All other blood investigations were within normal range. Despite adequate electrolyte correction, her symptoms persisted, hence she was subjected to further specialized tests. Hormonal studies showed serum thyroid stimulating hormone – 3.13 (normal: 0.27-2.2), free T4-0.03 ng/dl (normal: 0.93-1.7), free T3-<0.26 pg/ml (normal: 2.0-4.43), serum prolactin-1.41ng/ml (normal: 4.79-23.3), serum follicle stimulating hormone-0.68 mIU/ml (normal: 7.7-58.5), serum luteinizing hormone - 0.68 mIU/ml (normal: 6.2-19.4). MRI Brain showed marked thinning of the pituitary gland, along the sellar floor – suggestive of empty sella. Thus the diagnosis of Empty Sella Syndrome was made. She was treated with levothyroxine; intravenous hydrocortisone followed by oral prednisolone, hypertonic saline and potassium supplements and was discharged.

DISCUSSION
Before coming to us, this patient was treated symptomatically with analgesics and multivitamins for 5 years. Clinically, she appeared to be dazed. Hence detailed biochemical and hormonal assays were asked for. Noting the abnormal reports, MRI brain with focus on pituitary was done, which was suggestive of empty sella. The empty sella turcica is defined as an intrasellar herniation of the suprasellar subarachnoid space with compression of the pituitary gland. There are two types of ESS: primary and secondary. Primary ESS

ABSTRACT
BACKGROUND: Empty sella syndrome (ESS) is a symptom complex characterized by headache, giddiness, vomiting, visual field defects and endocrine abnormalities along with the radiographic appearance of an enlarged sella turcica1. Here we report the case of a 38 years old patient who presented with persistent headache, giddiness and fatigue since 5 years and eventually was diagnosed to have empty sella syndrome.

Key words: Empty sella syndrome, sella turcica, persistent headache
happens when a small anatomical defect above the pituitary gland increases pressure in the sella turcica and causes the gland to flatten out along the interior walls of the sella turcica cavity. The primary empty sella syndrome is generally found in middle-aged women who are obese and hypertensive\(^4\). The disorder can be a sign of idiopathic intracranial hypertension. Secondary ESS is the result of the pituitary gland regressing within the cavity after an injury, surgery, or radiation therapy. Individuals with secondary ESS due to destruction of the pituitary gland have symptoms that reflect the loss of pituitary functions, such as the ceasing of menstrual periods, infertility, fatigue, and intolerance to stress and infection. Treatment depends on the type of empty sella. There is no specific treatment for primary empty sella, as usually patient is asymptomatic and pituitary hormones are in normal range. For secondary empty sella syndrome, treatment involves replacing the hormones that are deficient\(^5\).

**CONCLUSION**

Empty sella syndrome should be kept as a differential diagnosis for patients presenting with non-specific persistent headache, fatigue and giddiness, especially in multiparous females. Every time, it need not be due to nutritional deficiencies as commonly thought and treated.

**REFERENCES**