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Rare case of hypopitutarism with empty sella syndrome

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Abstract

A significant endocrine disorder with many etiologies, hypopituitarism necessitates early detection and urgent treatment to prevent its severe negative effects. Due to non-specific symptoms of hypogonadism, growth hormone deficit, or minor abnormalities of other pituitary hormones, it is sometimes overlooked in adults. Some people may have sudden onset of symptoms that are indicative of acute adrenal (corticotropin) insufficiency or symptoms brought on by a tumour lesion in the pituitary or nearby areas.

The search for hypopituitarism in patients with vague symptoms like fatigue and malaise requires a high index of suspicion. Although it necessitates lifetime treatment and follow-up, treating solitary hormone insufficiency, partial hypopituitarism, or panhypopituitarism produces satisfying results1.

In the case of primary empty sella (PES), a number of etiopathogenetic hypotheses have been put forth, including a congenital incomplete formation of the seller diaphragm and suprasellar factors like a steady or sporadic increase in intracranial pressure as well as volumetric changes in the pituitary (as seen during pregnancy) 2,3,4.

On the other side, secondary empty sella can be brought on by radiotherapy, medications, surgery, or pituitary adenomas that have undergone spontaneous necrosis (ischemia or bleeding).

Keywords: Hypopituitarism, Partial Hypopituitarism, Growth Hormone, Empty Sella, Secondary Empty Sella, Radiotherapy, Surgery.

Introduction

Hypopituitarism, which can be caused by diseases of the pituitary or hypothalamus, is the partial or total inadequacy of anterior pituitary hormone secretion. The prevalence of (300-455 per million) and earlier reported incidence of (12-42 new cases per million each year) are likely underestimated.

5 A population-based research of hypopituitarism conducted in 1998 found that the prevalence was 46 instances per 100,000 people and the incidence was 4 cases per 100,000 annually. 6 With 1.2 billion people in India (Census-2011), this translates to around 350,000–555,000 cases of hypopituitarism.

Dr. Kochupillai calculated that 4 million people worldwide had a pituitary problem in 2000. 7 The neuroendocrine alterations in anterior pituitary hormone output are widespread after postpartum pituitary necrosis, according to numerous research, many of which are from India. radiation injury8 traumatic[9,10]

Case Report

A 63 years old female non diabetic non hypertensive came to hospital casualty with complaints of generalized weakness, loss of appetite, vomiting after food consumption since 15 days.

On General Examination

Patient had Pallor and Tongue Dry. Blood Pressure was 140/80 millimetres of mercury in right hand on supine position, Blood Oxygen saturation 98% on room air and Random Blood Sugar was 22 milligram per decilitre.

The Systemic Examination of Cardiovascular Respiratory Abdominal and Central Nervous Systems was found to be Normal.

Laboratory investigations of patient were carried out of blood having Haemoglobin 8.3gram/Decilitre, Total Leucocyte Count-2770, Platelets-1.63lakhs, Kidney Function Test and Liver Function test were Normal. Hormone Essay- Thyroid Stimulating Hormone-2.92, Follicular Stimulating

Hormone- 8.55(35-151), Lutienising

Hormone-3.26(8.2-40.8), Adreno Corticotropin

Hormone-3.26(7.2-63.3), Fasting Insulin-10.4, Cortisol-24(55-288).

Radiology Magnetic

Resonance Imaging of Brain was done which was suggestive of Empty Sella Turcica.

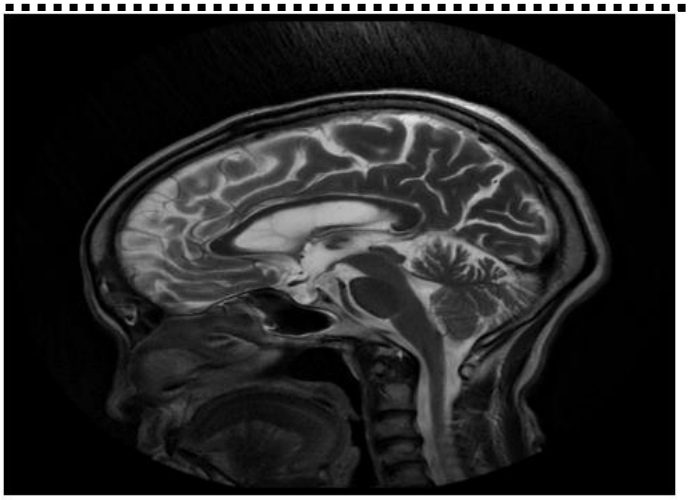

Fig 1: MRI section showing Empty Sella

Discussion

A 63 year old female with above mentioned history was admitted to Intensive Critical Care Unit of the hospital patient had Random Blood Glucose of 22mg/do for which patient was given dextrose intravenously in various concentrations. As per the hormone assay reports mentioned above all hormone including FSH, LH, Insulin Serum Cortisol were found to be low except TSH hence the patient was diagnosed as Partial Hypopituitarism as TSH appears to be normal. On radiological examination in MRI the sections showed empty sella as per attached image. So this was diagnosed as rare cases of Partial Hypopituitarism with Empty Sella Syndrome. Patient was then started with Multivitamin injectables and Antiemetics and Tappering dose of corticosteroids.

Conclusion

The above mentioned case summary brings forth the unending possibilities of diagnosing rare of rare conditions with the simplest presentation of emetics and hypoglycaemia.

The empty sella syndrome is majorly an incidental finding but patients can be managed with steroids and symptomatic treatment. The patient can be give hormonal therapy and levels to be monitored in the follow up.

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