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Case Report

A Case Report on Iatrogenic Cushing Syndrome with Diabetes Mellitus

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Abstract

Cushing syndrome (CS) is a condition caused due to high levels of cortisol in which weight gain and fat tissue build-up take place. Generally, patients with Cushing syndrome also suffer from diabetes. A 57-year-old female patient with aggravated cortisol levels. Laboratory investigations of the patient were performed and they showed decreased haemoglobin levels, but increased vitamin B12 levels, and TSH levels. The patient was prescribed a combination of medications to manage anemia, anemia, and diabetes. The patient's medical history included splenomegaly, cholelithiasis, panniculitis, and kidney enlargement. The patient's diabetes was responding well to the treatment and was better after 10 days.

Keywords: Cushing syndrome, Diabetes mellitus, corticosteroid.

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Introduction

Diabetes mellitus (DM) is an autoimmune disorder that involves persistently uplifted blood glucose ranks due to an inadequacy in insulin conflation action or both the ranks India alternate in terms of diabetes frequency. A recent study found that there are currently over 77 million diabetics worldwide [1].

The body develops Cushing's syndrome (CS) when exposed to high quantities of cortisol over an extended period. The condition peaks in adults and is extremely infrequent in youngsters. Oral corticosteroid usage is the most frequent contributor to Cushing's syndrome (CS). Weight gain and fatty tissue build-up in the face, shoulders, and belly are its most typical signs. This makes pituitary or adrenal tumors more likely, and long-term corticosteroid treatment [2]. When a patient's thyroid fails to manufacture or transfer sufficient antibodies to the thyroid into the circulatory system it is said to be hypothyroid as a result your metabolism slows which may lead you to gain weight feel tired and have issues in the cold it might appear at any time during one's life in addition to being inherited hypothyroidism is more common in diabetics cancer patients undergoing radiation pregnant women and the elderly [3].

Adrenal insufficiency:

The adrenal cortex's incapability to output cortisol is the root cause of adrenal incapability. Elementary adrenal inadequacy, which is the extremely usual outcome of autoimmune adrenalitis adds illness and genetic disruption of glucocorticoid agglutination reasoned by congenital adrenal hyperplasia can occur from this failure. The main cause of subordinate adrenal scantiness which is a deficiency of hypothalamic-pituitary control of the synthesis of adrenal cortisol is the treatment of hypothalamic-pituitary tumors with surgery or radiotherapy. However long-term exogenous glucocorticoid therapy also usually results in adrenal insufficiency which may be treatable with a slow cessation from therapy.

Precursive adrenal inadequacy is repeatedly caused by autoimmune-mediated adrenalitis /addiction illness which accounts for 6894 cases in high-income nations this state results in the animation of adrenal tissue [4].

Case report

A 57-year-old female patient with aggravated cortisol serum level and with chief complaints of unusual weight gain in upper limbs and area above lower limbs, moon-like face, shortness of breath, itching all over the body, all-over body nodules, and epigastric pain, presented to the female medicine ward. Vital signs on admission were Blood pressure of 138/88 mm/Hg, Heart rate of 94 bpm, and temperature of 98.6 F. The patient's cortisol level at the time of hospital admission was >600ng /ml. Other laboratory data exhibit that the hemoglobin level was 5.7 g/dl, vitamin B12 level was more than 2000 pg/ml, HbA1C was 6.5% and the TSH level was 13.3µlU/ml. TRBC, MCV, MCH, PCV, Iron, and TIBC were slightly low. The patient's Procalcitonin was high and her CRP level was 102.27mg/l.u. A USG of the abdomen demonstrates splenomegaly and cholelithiasis. A USG of bilateral breast revealed panniculitis and a USG of KUB showed a small bilateral kidney with mild increased renal cortical echogenicity. The impressions of MRI brain show enlargement of the Pituitary gland (Figure 1)

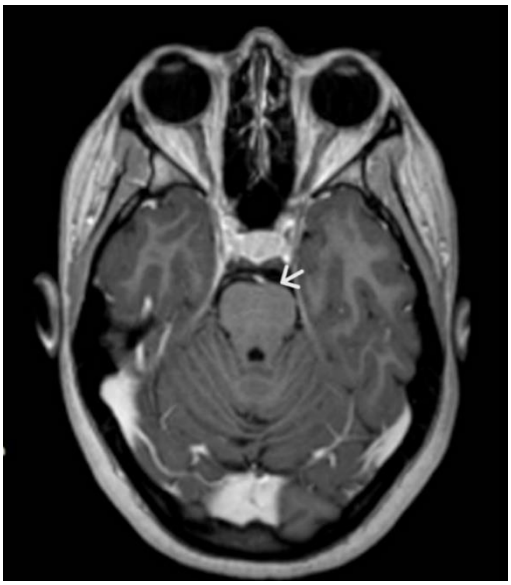

Figure 1- MRI shows an enlarged Pituitary gland.

The patient was given a Tab. Thyroxine 62.5mcg was given. Inj. Iron sucrose 200mg iv 100cc along with normal saline was given to manage anemia and Inj. Hydrocortisone loading dose with 100mg and tapering the dosing 50mg for 2 days, 40mg for two days, 20mg for two days, 10mg for two days, and end by 5mg. Inj Clindamycin 600mg OD was given for two days and Inj. Ceftriaxone and a combination of Piperacillin and Tazobactum were also given for five days. To manage diabetes OHA i.e., Metformin 500 mg was advised to the patient.

Discussion

According to WHO worldwide prevalence of anemia in women is around 29.9% and Southeast Asia & Africa are greatly affected areas. The hemoglobin count is less than 12 g/dl in women is anemic. Anemia can be identified by blood heart levels that fall less than a specific level in European population-based research the reported incidence was 12 to 24 per 1000000 per year and in US populations, it was 62 to 76 per million person-years [5].

If the basal central to peripheral ratio is more than 3:1 after a diagnosis of corticotropin-releasing hormone, it is confirmed that Cushing disease is present. This test has been considered the most reliable for detecting Cushing's illness because to its high specificity and sensitivity level of about 95% [6].

Diabetes negatively impacts 367.8 million individuals each year in nations with middle and low incomes than in countries with a high GDP. It is predicted that 231.9 million adults. However, those who are diabetes-diagnosed (one in every two) go hidden globally. (95.2 million) populations [7].

When studying the glycaemic profile of diabetes mellitus patients, HbA1c is the gold standard clinical metric. [8]. Oral hypoglycemic agent like Metformin helps to improve diabetic control in Cushing syndrome (CS) [9].

Conclusion

It is important to recognize steroid-induced Cushing syndrome (CS) as early as possible to minimize the risk. The patient was stable after 10 days of treatment and her diabetes was under control. The corticosteroids were stopped after tapering the dose.

Follow up

The patient was stable after stopping corticosteroids.

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Conflict of Interest:

None

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