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An Interesting Case of Cushing Syndrome

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Abstract:-

➢ ***An Interesting Case of Cushing Syndrome***

A 36 year old female presented to dermatology department with Multiple ulcers present in B/L axilla, B/L inframammary fold and B/L gluteal fold (Left > Right) since 3 months.

Patient was referred from dermatology department to General Medicine for opinion on puffiness of face and swelling of legs . Patient had history of topical steroid use for itchy lesions in B/L axilla and inframammary folds 4 months back . H/o weight gain present. (6 kg). H/o puffiness of face and striae present over the abdomen. Patient had no known comorbidities previously. On physical examination patient had moon face ,facial plethora + ,Buffalo hump ,Loss of axillary hair, centripetal obesity , Abdominal striae , Sparse pubic hair , Pallor +.

Systemic examination was normal. Investigations revealed new onset diabetes , serum cortisol was low (<0.5 mcg/ml) , serum acth was low (1pg/ml) , HB was low (7.9gm/dl) , total count was elevated (15,600) . Patient was diagnosed to have Iatrogenic (Topical steroid induced) Cushing Syndrome with Steroid induced atrophy and ulceration of skin & subcutaneous tissue leading to secondary fungal and bacterial infection , tinea incognito with secondary bacterial infection , iron deficiency anemia and newly detected Type 2 Diabetes mellitus. Patient was appropiately treated with iv antibiotics (Inj Piperacillin Tazobactum 4.5 g iv thrice daily), daily dressing on other supportive measures along with discontinuation of steroids. Patient improved symptomatically after discontinuing topical steroids, the cushingoid features started decreasing. The ulcers also started to heal. The patient was started on Tab. Hydrocortisone 10mg - 0 – 5mg and was referred for Endocrinologist opinion

I. INTRODUCTION

Cushing's syndrome is the term used to describe the clinical state of increased free circulating glucocorticoid, there are two types one is exogenous and endogenous cushing's syndrome here we gonna discuss about exogenous cushing most common cause of this is iatrogenic steroid,e.g oral steroids(prednisolone) which are available over the counter drugs in our country, tropical steroids are extremely rare cause of exogenous cushing's syndrome but nowadays there is increased number of case reported due to easy availablity of drugs

II. CASE PRESENTATION

A 36 year old female presented to dermatology department with Multiple ulcers present in B/L axilla, B/L inframammary fold and B/L gluteal fold (Left > Right) since 3 months

Patient was referred from dermatology department to General Medicine for opinion on puffiness of face and swelling of legs ? Cushing's Syndrome.

Patient was apparently normal 4 months back when she developed itchy lesions in bilateral axilla and bilateral infra mammary folds and bilateral gluteal folds for which she had taken treatment (topical steroid ointment) from a local pharmacy without Doctor's prescription (self treatment)

About 3 1/2 months back, the itchy lesions developed into multiple ulcers, the patient continued to apply the ointment over the ulcers. The patient did not seek any medical attention for ulcers till she presented to SSSMCRI dermatology department on 28/03/2022

H/o Puffiness of face since 1week. Insidious in onset, gradually progressive, no aggravating or relieving factors.

The puffiness's persisted throughout the day without any regression

- No h/o dyspnoea. No h/o chest pain/ palpitations. No h/o oliguria/ haematuria/ frothy urine.
- Not a K/C/O Type 2 Diabetes mellitus, Hypertension, CAD, Bronchial asthma, TB, Epilepsy
- Patient is non vegetarian, sleep – disturbed, appetite – Normal , bowel and Bladder – Normal and regular , non smoker/ non alcoholic. Menstrual history is normal. No relevant family history.
- Patient had history of usage of clobetasol propionate – 30g local application daily.

III. GENERAL PHYSICAL EXAMINATION

➢ Patient is Conscious & Oriented

- Temp – 98.4 F
- PR – 80 bpm, right radial, regular rhythm, normal character, normal volume, normal condition of vessel wall, no radio-radial/ radio-femoral delay, all peripheral pulses were felt

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- BP – 140/90 mm Hg, right arm, supine position
- SpO2 – 98% in Room air
- RR – 16 cycles/min
- Moon face
- Facial plethora +
- Buffalo hump
- Loss of axillary hair
- Centripetal obesity
- Abdominal striae
- Sparse pubic hair
- Pallor +
- No icterus/ cyanosis/ clubbing/ lymphadenopathy

➢ *Systemic Examination*
- RS – Bilateral NVBS, no added sounds
- CVS – S1, S2 +, no murmurs
- P/A – Soft, non tender, no organomegaly, Bowel sounds heard
- CNS – NFND
- Local examination: Multiple ulcers present in B/L axilla, B/L inframammary fold and B/L gluteal fold

➢ *Investigations*
- Hb – 7.9 g/dl
- TLC – 15,900/cu.mm
- Neutrophils – 68%
- Lymphocytes – 25%
- Monocytes – 6%
- Eosinophils – 1%
- Platelet count – 5.1 lakhs/cu.mm
- RBC – 4.5 million/cu.mm
- PCV – 28%
- MCV – 93 fl
- MCH – 17 pg
- MCHC – 27 g/dl
- RDW – 20.4%
- ESR – 25 mm
- Reticulocyte count – 2.1%
- Peripheral smear – Microcytic hypochromic anaemia with neutrophilic leucocytosis
- RBS – 230 mg/dl
- Urea – 26 mg/dl
- Creatinine – 0.7 mg/dl
- Sodium – 142 meq/L
- Potassium – 3.9 meq/L
- Chloride – 102 meq/L
- Total bilirubin – 0.8 mg/dl
- Direct bilirubin – 0.2 mg/dl
- Total protein – 6.3 g/dl
- Albumin – 3.6 g/dl
- Globulin – 2.7 g/dL
- SGOT/ AST – 27 IU/L
- SGPT/ ALT – 21 IU/L
- ALP – 75 IU/L
- A:G ratio – 1.3
- Serum Cortisol - <0.5 mcg/dl @ 9 am (5-23 mcg/dl)
- Serum ACTH – 1 pg/dl (10-60 pg/ml)

IV. DIAGNOSIS

➢ Iatrogenic (Topical steroid induced) Cushing Syndrome
- HPA axis suppression
- Steroid induced atrophy and ulceration of skin & subcutaneous tissue leading to secondary fungal and bacterial infection
- Tinea incognito with secondary bacterial infection
- Iron deficiency anemia
- Newly detected Type 2 Diabetes mellitus

V. MANAGEMENT

➢ *Topical Steroids were Discontinued.*

Patient was treated iv antibiotics (Inj Piperacillin Tazobactum 4.5 g iv thrice daily), daily dressing on other supportive measures Cap. Itraconazole 200mg 0-0-1, Fucidin Ointment, L/A twice daily, Tab. Cetrizine 10 mg 0-0-1 as per dermatology opinion

Patient improved symptomatically after discontinuing topical steroids, the cushingoid features started decreasing. The ulcers also started to heal.

After a week time, Serum cortisol and Serum ACTH were done, Both levels were decreased.

The patient was started on Tab. Hydrocortisone 10mg - 0 – 5mg and was referred for Endocrinologist opinion,After 3 weeks patient was followed up steroids were tappered here blood sugar levels reduced and she had 5 kg weight loss

VI. DISSCUSION

Glucocorticoid therapy in various forms is extremely common for several inflammatory, autoimmune, and neoplastic disorders. It is therefore important to be aware of the possibility of iatrogenic Cushing's syndrome.

◦Although most common with oral therapy, it is also important to be alert to the fact that all forms of glucocorticoid delivery have the potential to cause Cushing's syndrome.

◦Withdrawal from chronic glucocorticoid therapy presents significant challenges. These include the possibility of adrenal insufficiency after discontinuation of steroid therapy, recurrence of underlying disease as the glucocorticoid is being withdrawn, and the possibility of steroid withdrawal symptoms.

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