

Heavy Price Of Beauty Therapy

N Rashid, T T Chung

Department of Endocrinology & Diabetes

University College Hospital , London, UK

Introduction

Iatrogenic Cushing's syndrome from potent topical steroid use resulting in suppression of the hypothalamic-pituitary-adrenal axis (HPA) is well recognised. HPA axis suppression from skin whitener has not been reported before in literature.¹

We report a case of Cushing's syndrome from long term use of skin whitening cream "GIG" and topical steroids clobetasol, highlighting the importance of detailed history taking.

Case Summary

A 49 years Nigerian female, with no previous medical history or regular medications use.

She was admitted on acute medical take with DKA, treated initially with intravenous dehydration, subcutaneous insulin, metformin and gliclazide.

Her blood pressure was noted to be persistently high >170/93. She was started on amlodipine and rampril. As her serum potassium was low, the general medical team screened for hyperaldosteronism and CT adrenal was normal.

She was also noted to have features of Cushing's syndrome including marked striae all over body, facial plethora, round face and central obesity. Her 9am cortisol and 24hour urinary cortisols were low. The patient denied use of exogenous steroids intake but use of skin whitening cream was not explored by admitting medical team.



Biochemistry on admission

Test	Result
Glucose	31.3 mmol/L
Hba1C	9.5 %
PH	7.33
Base excess	-8.5
Na	142 mmol/L
K	2.8 mmol/L
calcium	2.42
Urine Ketones	+++
Random Cortisol	11 nmol/L
9 am cortisol	128 nmol/L
2x 24 hours urine cortisol	<28 nmol/L/24

Progress

The clinical picture of Cushing's syndrome with low early morning cortisol raised the likelihood of exogenous steroid use.

Her condition was re-visited by endocrinology. A history of long term topical steroid exposure from skin whitening moisturiser and 0.05% Clobetasol cream use for the last 10 years was identified and stopped. She was then given maintenance doses of hydrocortisone.

Her HPA axis slowly re-emerged with cortisol levels slowly started to rise within few days of stopping all creams. Latest 9 am cortisol 246 nmol/L with ACTH 11.8ng/L. Six weeks later she demonstrated good cortisol reserve with an adequate short synacthen test.

Her glycaemic control continued to improve with HbA1c 5.9 % on Metformin only. Insulin and gliclazide were stopped.

Her blood pressure was controlled on a single agent – amlodipine 10mg daily.

Her physical appearance improving with less marked striae and facial plethora as the patient continues to lose weight.

Short Synacthen test 6 weeks after stopping topical preparations

Time	Cortisol
0 MIN	196 nmol/L
30 Min post ACTH	502 nmol/L
60 Min post ACTH	568 nmol/L

Physical appearance 3 months after stopping topical treatment



Conclusions

This case highlights importance of a focussed history, physical examination, correct interpretation of biochemistry and early referral. A detailed drug history including over the counter medications and skin whitening products containing steroids needs to be elicited.

References

¹ *Endocrine*. 2010 Dec;38(3):328-34. doi: 10.1007/s12020-010-9393-6. Epub 2010 Oct 23. Exogenous Cushing's syndrome due to topical corticosteroid application: case report and review literature. Tempark T, Phatarakijirund V, Chatproedprai S, Watcharasindhu S, Supomsilchai V, Wananukul S. Division of Dermatology, Department of Pediatrics, Faculty of Medicine, Chulalongkorn University, Bangkok 10330, Thailand