Mometasone Furoate Nasal Spray Causing Suppression of HPA Axis

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Background:
We present an under reported case of suppression of HPA axis from nasal Steroids, in our case Mometasone Furoate. Exogenous steroids, especially oral and inhaled are well recognized causes of this phenomenon, however, typically nasal steroids are missed as differential diagnosis.

Case Report:
90 year old lady with past medical history of Lung cancer, HTN, HLD, COPD, ESRD, Renal cell carcinoma, Hypothyroidism and allergic rhinitis, with no history of diabetes. She presented with shortness of breath, however, during her initial evaluation, hypoglycemia was revealed and her plasma glucose level was 59. Her medications included Mometasone furoate and nasal fluticasone propionate.

Initial work up included basal morning cortisol and ACTH level on admission, which showed ACTH level was below 5 pg/ml and plasma cortisol level was 83.5 ug/dl. 24 hour urinary cortisol could not be collected because the patient was anuric. With removal of the fluticasone and Mometasone nasal sprays, her cortisol and ACTH levels returned to 24.6 ug/dl and 20 pg/ml respectively. Repeat levels after resuming fluticasone were similar, ACTH 25 ug/dl and Cortisol 22 pg/ml despite holding Mometasone.

Discussion:
Iatrogenic Cushing's syndrome with low ACTH phenomenon is well recognized clinical entity secondary to systemic or inhaled corticosteroids. There have been previous reports of nasal steroids causing HPA axis suppression. (1,2,3,4).

References:

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Biography:
Dr. Madhura Borikar is an Internal Medicine resident currently in training at Mercy Catholic Medical Center, PA. She is interested in the field of Endocrinology and Metabolism. She has had publications during her training including Critical Care forum, American Society of Nephrology and DrexelMed journal. She also has an ongoing research project which studies Corticosteroid induced Hyperglycemia.