



POSTER PRESENTATION

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Adrenal suppression in an asthmatic presenting after change from high dose inhaled fluticasone propionate to inhaled budesonide

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Introduction

Adrenal suppression with high doses of inhaled corticosteroids has been reported in the literature with suggestion of fluticasone propionate (FP) being a more potent adrenal suppressant than budesonide (BUD). To our knowledge, we present the first case of adrenal suppression after change from high dose FP to BUD therapy.

Case description

A ten-year-old boy with asthma, peanut allergy, and allergic rhinitis had been maintained on a regimen of FP/salmeterol 500 mcg per day and mometasone furoate nasal spray 50 mcg per day. During exacerbations FP 500 mcg per day was added. He had no oral steroid usage. After a stable period with only FP/salmeterol, his regimen was changed to BUD/formoterol 800 mcg per day. Shortly after this change in regimen, he began to experience spells of dizziness, fatigue, nausea and diaphoresis with exercise. A random glucose was low at 3.4 mol/L and an AM cortisol was low at 67 nmol/L. With endocrinologist recommendation adrenal suppression was diagnosed, hydrocortisone therapy at 18 mg/m² and ciclesonide were initiated. He is currently stable, tapering hydrocortisone therapy, with plans for ACTH stimulation test when hydrocortisone is discontinued.

Discussion

A number of studies have suggested that the systemic bioavailability and potential for adrenal suppression is increased with FP compared to BUD. It is our suspicion that his underlying adrenal suppression was revealed

presenting as withdrawal after switching to a less bioavailable steroid. Adrenal suppression is an important consideration for physicians tapering patients from chronic high dose fluticasone therapy to less bioavailable inhaled corticosteroids.

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