

Patients with Moderate Asthma Presenting with Secondary Hypoadrenalism- A Cautionary Tale.

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Patients with moderate persistent asthma are commonly prescribed inhaled corticosteroids (ICS). We describe four patients who presented with **non-specific and varied symptoms** caused by hypoadrenalism with resolution of symptoms on replacement therapy.

Method: We describe 4 patients during 2014- 2015 from a specialist respiratory clinic. Patient's symptoms, weight, height, BMI, lung function (PFT), peak flow variation were recorded. Serum cortisol and ACTH, synacthen test were performed.

Results: 4 females aged 36 to 61 years (mean 51 years) were diagnosed with hypoadrenalism confirmed by biochemical testing. The mean use of ICS ranged from 960 mcg to 1920 mcg per day (budesonide, fluticasone, mean 1220 mcg). Duration of asthma was: mean 19 years (range 12-35 years). 3 out of 4 patients needed periodic oral corticosteroids for asthma control; (including one patient for idiopathic thrombocytopaenic purpura (ITP) in childhood for 2 months). 1 patient had a recent hospitalisation for an acute exacerbation. **Presenting symptoms: All patients experienced lethargy; 3 patients had depressive symptoms, (one needed psychiatric therapy), 1 patient appeared cushingoid; 1 had easy bruisability; 2 patients were admitted for other medical problems at time of diagnosis (infected haematoma with thrombophlebitis and ascending lymphangitis; constipation and abdominal pain with hypokalaemia/hyponatraemia).** . Mean BMI was 25.85 kg/m² (range 21.4-32.8 kg/m²). 3 patients were put on replacement therapy (1 declined) with resolution of presenting symptoms. PFTs were normal for all patients (FEV₁ 101% predicted and FEV₁/FVC 83.8% predicted). However, peak flow variation was abnormal: 36% variation (range 8.7-61%).

Conclusion: although rare, it is important to be aware of secondary hypoadrenalism which may present with non-specific symptoms. Diagnosis and treatment may be life-saving.