Adrenal LBODP012

A Case of Addison’s Disease Presented With Rhabdomyolysis And Psychosis

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Background: Addison’s disease is a disorder of deficiencies in glucocorticoids and mineralocorticoids, mostly resulting from destruction of the adrenal cortex. Rhabdomyolysis and psychosis can be symptoms presented in cases of adrenal crisis. Clinical Case: A 42-year-old male was hospitalized for rhabdomyolysis (CK 5200 U/L), hyponatremia (Na 117 mmol/L), hyperkalemia (K 6.4 mmol/dL) and acute renal failure (Creatinine 4.4 mg/dL). Past medical history was significant for a similar episode of rhabdomyolysis: negative EMG, muscle biopsy nonconclusive, diagnosed with autoimmune hypothyroidism and started on levothyroxine 50 mcg daily five years ago.
Renal function improved and electrolyte abnormality was resolved with IV hydration. ACTH was elevated (580 pg/mL), cortisol and aldosterone were undetectable; patient was discharged on hydrocortisone 10 mg bid from outside hospital. His mood and personality changed significantly after he started hydrocortisone. One week later he was admitted to a psychiatry unit due to mania and psychosis, and was started on risperidone and divalproex sodium.

Cosyntropin stimulation test confirmed primary adrenal insufficiency, likely autoimmune adrenalitis with positive 21-hydroxylase antibody. Hydrocortisone was replaced with prednisone 5mg daily and fludrocortisone 0.2 mg daily. Psychiatric symptoms completely resolved in two months; patient was taken off psychiatric medications. Clinical condition was stable in follow-up visits. Electrolytes and blood pressure continued to stay in normal range. This case of Addison’s disease initially presented with rhabdomyolysis as a first symptom, manifested by acute psychosis in the course of treatment with hydrocortisone. The association between adrenal insufficiency and rhabdomyolysis has been reported, but the underlying mechanism is not clear. Several theories have been proposed to explain neuropsychiatric manifestations secondary to adrenal insufficiency (1); there is no definite answer yet. **Conclusion:** Adrenal insufficiency should be evaluated in patients with rhabdomyolysis. Mental disturbances triggered by adrenal crisis and treatment should be considered by both endocrinologist and psychiatrist. Reference: (1) Farah, J., et al. Severe Psychotic Disorder as the Main Manifestation of Adrenal Insufficiency. Case Rep Psychiatry. 2015; 2015: 512430.

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