Abstract

Introduction

Cushing's syndrome (CS) can be defined as the clinical state of increased free circulating glucocorticoid. Cushing's syndrome can either be adreno-corticotrophin (ACTH) dependent or independent. ACTH-dependent cases are caused by increased circulating ACTH either by ectopic ACTH secretion or increased ACTH secretion from the pituitary, which is known as Cushing's disease. Chronic exposure to excess glucocorticoids is responsible for the symptoms and signs of Cushing's syndrome. Cushing's syndrome is associated with an 18-fold higher risk of venous thromboembolism, which can occur mostly before starting treatment, post-operatively, or after biochemical remission. Here, we report a 54-year-old female who was diagnosed to have Cushing's disease following her presentation with acute pulmonary embolism.

Case presentation

A 54-year-old Sri Lankan female presented with 3 days history of shortness of breath. There had been significant weight gain, increased facial hair growth, loss of scalp hair, and difficulty in climbing stairs for approximately 4 months duration. Past medical history was significant for chronic headache for 8 years, depression for 5 years, diabetes mellitus, and hypertension for 1 month. Examination revealed central obesity, moon face, facial hirsutism, non-scarring alopecia, abdominal striae, hypertension, tachycardia, tachypnea, and proximal

muscle weakness of all limbs. Respiratory system examination was normal except for tachypnea. The computed tomography pulmonary angiography (CTPA) showed pulmonary emboli involving right side lobar level pulmonary arteries extending further down to sub-segmental arteries. Serum studies showed persistent hypokalemia. Serum 9 am cortisol, day curve, and overnight dexamethasone suppression test revealed hypercortisolism. Serum ACTH was elevated. MRI-brain showed pituitary macro-adenoma. A diagnosis of Cushing's disease was made. She underwent trans-sphenoidal surgery for pituitary tumor excision, following which she had a residual tumor and persistently elevated serum cortisol levels. Radiotherapy for pituitary tumor was planned.

Conclusion

Untreated severe Cushing's syndrome has high morbidity and mortality rates. There is a large spectrum of manifestations from subclinical to overt syndrome, only a few of the features are pathognomonic in isolation and some of the manifestations are common in individuals who do not have glucocorticoid excess. Because of the above reasons establishing the diagnosis of Cushing's syndrome is often difficult. Therefore, a high degree of clinical suspicion and early identification is necessary especially when patients present with a cluster of symptoms and signs as in our patient. It is of utmost importance to diagnose and treat as early as possible to prevent lethal complications of chronic glucocorticoid exposure as in our patient.