

## **Abstract**

Cushing's syndrome is a rare disease resulting from overproduction of cortisol. It may be due to overproduction of cortisol by adrenal glands, excessive production of adrenocorticotrophic hormone (ACTH) by pituitary gland or ectopic site tumors stimulating overproduction of cortisol by adrenal gland. Patients have slight variation in clinical presentation depending on the cause.

Here we present a case of 29 years old unmarried female who was diagnosed to have polycystic ovarian syndrome (PCOS) when she presented with amenorrhea, weight gain and excessive facial hair growth 10 years back, has developed diabetes mellitus (DM), hypertension and depression during the course of past 10 years. Screening test for Cushing's was negative twice during this period. This time she complained of bitemporal headache without any visual disturbance, excessive weight gain and excessive hair growth on face and limbs for 6/12 duration. On examination she was overweight, with high waist circumference with slight pigmentation of face and palmar creases. She had high blood pressure with retinal changes of grade 2 hypertensive retinopathy. There were no purple striae or proximal myopathy. She had easy bruising. We suspected Cushing's syndrome with the background history of DM, hypertension and depression. Her investigations showed low normal potassium without any alkalosis. She had high free urinary cortisol level. Her overnight dexamethasone suppression test was not suppressed. Low dose dexamethasone suppression test was also not suppressed. Hypercortisolism was confirmed. Serum ACTH level was high and high dose dexamethasone suppression test showed 50% suppression. So pituitary origin Cushing's syndrome - Cushing's disease was suspected. MRI pituitary showed pituitary macroadenoma. Visual perimetry was normal. Her DXA scan showed osteoporosis. So diagnosis of Cushing's disease complicated with DM, hypertension and osteoporosis was made. She underwent transsphenoidal excision of pituitary adenoma. Post surgical period was uncomplicated. She was started on oral hydrocortisone.