

Cushing's Syndrome Characteristics

Cushing syndrome occurs due to increased glucocorticoids and is a result of either exogenous or endogenous causes. Exogenous causes include iatrogenic glucocorticoid intake. Endogenous causes include 1° adrenal disease, along with pituitary conditions (Cushing Disease) and paraneoplastic conditions.



PLAY PICMONIC

More Common in Women

Women

Women are more affected with Cushing syndrome than men, at a ratio of 4:1. This is often because of Cushing disease due to pituitary adenoma.

Exogenous Etiologies

Glucocorticoids

Glue-quarter-on-steroids

Exogenous administration of glucocorticoids can result in iatrogenic Cushing syndrome, which is the most common cause of Cushing syndrome.

Endogenous Etiologies

Decreased ACTH

Down-arrow Air-Conditioning

Of the endogenous causes of Cushing Syndrome, decreased ACTH occurs due to primary adrenal issues. ACTH is low due to negative feedback from increased glucocorticoids.

Primary Adrenal Disease

1° Foam-finger Diseased Adrenal Gland

Primary adrenal disease can be due to adrenal hyperplasia, adenoma or carcinoma. It is characterized by hypercortisolism due to secretion from the adrenals and low ACTH. As these are 1° adrenal disorders, cortisol secretion is always elevated and does not respond to high or low-dose dexamethasone suppression tests.

Increased ACTH

Up-arrow Air-Conditioning

Of the endogenous causes of Cushing Syndrome, increased ACTH levels point to a diagnosis of either an ACTH-secreting pituitary adenoma (Cushing Disease) or paraneoplastic ACTH secretion.

Pituitary Adenoma (Cushing's Disease)

Pit-bull-terrier Add(+)gnome on Diseased Cushion

Cushing Disease is the most common cause of endogenous Cushing syndrome. It is usually due to a ACTH-producing pituitary micro adenoma. This presentation, involving the pituitary, is known as Cushing Disease.

Paraneoplastic: Small Cell Carcinoma

Parachuting-neanderthal-plastic bag with Small Car-gnome.

Small cell carcinoma of the lung can secrete ACTH as part of a paraneoplastic syndrome. This subsequently yields high cortisol levels which are not suppressed by low or high-dose dexamethasone suppression tests.

CRF-releasing Tumors

Tumor releasing **CR**ying-Fat-kid

CRF-releasing tumors are a rare cause of Cushing syndrome that can result in pituitary hyperplasia and increased ACTH secretion.