ADRENAL SUPPRESSION

Definition

Adrenal suppression refers to decreased cortisol production as a result of negative feedback on the hypothalamic-pituitary-adrenal axis, caused by excess glucocorticoids

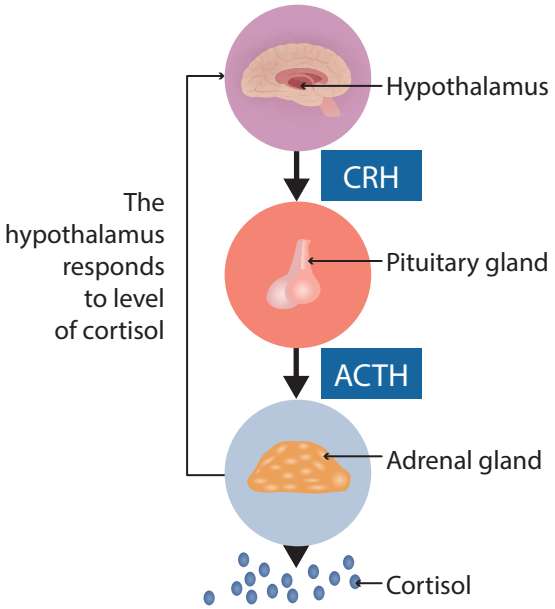
Causes of adrenal suppression

- Sudden cessation of exogenous glucocorticoids
- Can also occur when endogenous glucocorticoid excess is corrected

Risk factors

- The higher the dose, the longer the therapy, the greater the risk
- Can develop after > 1 week of high dose steroids
- Oral and IV corticosteroids have greater risk than topical or inhaled

Normal feedback loop



Adrenal suppression

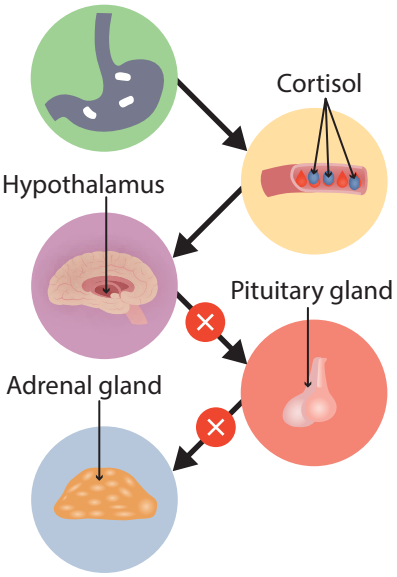
Corticosteroids are given

Corticosteroids enter blood stream

The hypothalamus receives message that there are adequate corticosteroid levels

CRH and ACTH are not released

Adrenal glands do not receive message to make their own glucocorticoids, become inactive



Effects of adrenal suppression

Hypotension

Extreme fatigue

Weight loss

Nausea, vomiting

Decreased appetite

Body hair loss

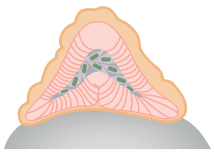
Irregular, or absent, menses

Hypoglycemia

Salt cravings

Acute adrenal insufficiency

Adrenal suppression can lead to adrenal insufficiency, a potentially life-threatening side effect of corticosteroid use



When adrenal insufficiency occurs, the adrenal gland atrophies and fails to make corticosteroids. Exogenous glucocorticoids may be needed.

Client Education

Stress importance of following tapering regimen. Client should not abruptly stop medications.

Explain need to wake adrenal glands up slowly, gently encouraging glands to produce corticosteroids again

In some cases of long-term, high dose steroid use, recovery can take months. Client should be aware of acute symptoms requiring follow-up.

NOTES