

Cushing's Disease

Moon Face & Buffalo Hump



Pathophysiology:

Cushing syndrome is caused from excessive adrenocortical activity, unlike Addison's disease where there is an under-production of corticosteroids.

Etiology:

Cushing's may be caused by several factors including:

- A tumor of the pituitary gland that produces ACTH and stimulates the adrenal cortex to increase hormone production.
- The ectopic production of ACTH by malignancies (bronchogenic carcinoma is the most common)

Treatment:

Medical:

If caused by a tumor, surgical removal is recommended.

Adrenalectomy (removal of the adrenal gland) is recommended for unilateral adrenal hypertrophy.

Pharmacologic:

Adrenal enzyme inhibitors (metyrapone, aminoglutethimide, mitotane, ketoconazole) may be used to reduce hyperadrenalinism if the syndrome is caused by ectopic ACTH secretion by a tumor that cannot be eradicated.

If Cushing's is caused from the admin of corticosteroid therapy, a reduction may be made and an eventual taper off to treat other disease.

Labs and Diagnostics:

- Serum cortisol (normally higher in the AM and lower in the PM)
- Urinary cortisol (quired by 24 hr collection (Cushings is assumed when the levels are 3 times the normal limit)
- Low-dose dexamethasone (Decadron) suppression Test (these are used to diagnose pituitary and adrenal causes of Cushing syndrome)

Signs & Symptoms:

The primary S/S are mostly the result of increased glucocorticoids and androgens.

- "buffalo hump" in the neck
- Heavy trunk with thin arms and legs
- Easily bruising skin, with slow healing wounds
- Kyphosis with backache
- "moon face" appearance
- Weight gain

Risk Factors:

While none of the below factors are direct causes, they are more prevent if you fall into each category.

- Women between 20-40
- Obesity
- Type 2 Diabetes
- Poorly controlled blood sugar levels
- High blood pressure

Nursing Interventions:

Assessment: Health and History with the focus on the S/S of high concentrations of adrenal cortex hormones. Get patient's level of activity, and ability to carry out self care. Also, check the patient's mental status (depression), mood etc.

The nurse is responsible for decreasing risk of injury (impaired healing ability), risk of infection.

The nurse assists in preparing the patient for surgery if a tumor or adrenal gland is to be removed.

Monitor blood glucose before, during, and after surgery as diabetes is common in patients with Cushing syndrome.

Encourage rest but at the same time you must encourage activity to avoid complications of immobility (skin breakdown) as well as after surgery to prevent blood clots.

Addisonian Crisis: Withdrawal of corticosteroids by adrenalectomy, or by pituitary tumor removal are at risk for adrenal hypofunction and should be monitored as such.