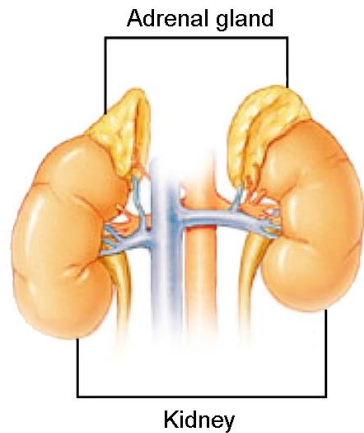


Addison's Disease

Atrophy of the Adrenal



Pathophysiology:

Addison disease, or primary adrenal insufficiency (PAI), occurs when damaged adrenal glands can no longer produce enough cortical hormones needed by the body.

Etiology:

- Autoimmune or idiopathic atrophy of the adrenal glands (80 to 90% of all cases)
- Surgical removal of the adrenal glands
- Tuberculosis and histoplasmosis are the most common infections associated with infection induced adrenal gland destruction.
- Inadequate ACTH from the pituitary is a secondary cause of Addison's.

Treatment:

Medical:

Immediate treatment is toward combating circulatory shock; restoring blood circulation, admin fluids and corticosteroids, monitoring vitals signs, and placing the patient in a recumbent position with the legs elevated. Hydrocortisone (Solu-Cortef) is administered by IV, followed by 5% dextrose in normal Saline.

Pharmacologic:

Antibiotics for infection
If the adrenal gland does not regain function, lifelong replacement of corticosteroids and mineralcorticoids will be needed to prevent adrenal insufficiency.

Oral intake can happen as soon as tolerated by the patient, main goal is to prevent hypovolemia. Also the patient may need to supplement sodium during GI losses of fluids through nausea and vomiting.

Labs and Diagnostics:

Measurement of early-morning serum cortisol and plasma ACTH to separate primary from secondary
Blood glucose measurement (hypoglycemia)
Sodium measurement (hyponatremia)
Potassium measurement (hyperkalemia)
WBC White blood Cell Count (leukocytosis)

Signs & Symptoms:

- Muscle weakness
- anorexia
- GI symptoms
- fatigue
- emaciation,
- dark pigmentation of the mucous membranes and the skin, especially of the knuckles, knees, and elbows,
- HTN
- low blood glucose

Risk Factors:

- Having had cancer
- Taking anticoagulants
- Having Tuberculosis
- Surgical removal of adrenal gland
- Having an autoimmune disease like type 1 diabetes or Graves disease

Nursing Interventions:

Assessment: Health and History, with exam focused on S/S of fluid imbalance and stress levels.
Monitor and Manage Addisonian Crisis: monitor for shock, hypotension, weak pulse, rapid breaths, pallor and fatigue. This crisis requires immediate IV fluids, glucose and electrolytes, namely sodium.
Fluid Balance: In working with a dietitian, encourage the patient to eat and drink along with fluids to restore balance. Salt may need to be added to the diet.
Stress: Avoid stressful situation and increased outside stimuli to avoid a hypotensive crisis.
Education: Educate the patient about disease process, and the lifelong treatment needed to prevent addisonian crisis. The patient needs to know the S/S of too high or too low hormone replacement. The patient should have an emergency kit of corticosteroid injections.