Management of Clients with Adrenal and Pituitary Disorders

Chapters 46, (pp 1217-1242)

Baptist Health School of Nursing
NSG 4037: Adult Nursing III
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Adrenal Glands

- Above the kidneys
- Aldosterone, cortisol, sex steroids, epinephrine
- Regulates, vascular tone, stress, metabolism, fight or flight response
Adrenocortical Hypofunction

- Hypofunction of adrenal cortex
- Primary adrenal insufficiency
- Secondary adrenal insufficiency
Addison’s Disease

- **Clinical manifestations**
  - Insidious but progressive
  - Mild fatigue, irritability
  - Weight loss, nausea/vomiting
  - Postural hypotension
  - Hyperpigmentation
Famous People with Addison’s Disease:
John F. Kennedy and Helen Reddy
Addison’s Disease: Diagnostic Tests

- ACTH stimulation
- Serum electrolytes
- Blood Glucose
- CBC
- Chest X-Ray
- CT
- MRI of adrenal and pituitary
Addison’s Disease: Medical Management

- Addisonian Crisis
- Correct Fluid and Electrolye Balance
- Correct Hypoglycemia
- Replace Steroids
- Antibiotics
- Diet
Nursing Management of Client with Addisonian Crisis

- Risk for Injury (hypotension, shock)
  
  Monitor for Manifestations of Crisis
  Correct Fluid and Electrolyte Imbalances
  Prevent Future Crisis
Secondary Adrenal Insufficiency

- Dysfunction of hypothalmic-pituitary-adrenal
- Cause: Chronic TX with Glucocorticoids
- Hypopituitarism
- Pituitary tumor or infarction
- Radiation
Secondary Adrenal Insufficiency: Manifestations and Treatment

- Low Cortisol production
- Low plasma ACTH
- Cortisol Deficiency
- Treatment: Glucocorticoids
- Emergency bracelet
- Hydrocortisone Injection
Adrenocortical Hyperfunction: Cushing’s Syndrome
Cushing’s Syndrome: Clinical Manifestations

- Weight gain, muscle weakness, kyphosis, back pain
- Central Obesity, moon face, buffalo hump
- Stretch marks
- Hypertension
- Hirsutism
Cushing’s Syndrome: Diagnostic Tests

- 24 hour urine sample for free Cortisol
- Dexamethasone suppression test
- Serum Electrolyte studies
- CT scan
- MRI
Cushing’s Syndrome: Medical Management

- Administer Glucocorticoids
- Correct Fluid and Electrolye Balance
- Correct Hypoglycemia
- Replace Steroids
- Antibiotics
- Diet
- Surgical Management
Nursing Management of Client with Cushing’s Syndrome

- Disturbed Body Image R/T hyperpigmentation, hair loss, and other physical changes.
- Risk for Impaired skin integrity R/T thinning skin and fragile capillaries secondary to increased cortisol production.
Disorders of the Pituitary Gland

- **Anterior Pituitary**
  - 7 of the 9 hormones of pituitary
  - ACTH, TSH, FSH, LH, MSH, LTH, GH

- **Posterior Pituitary**
  - ADH and Oxytocin
Disorders of the Pituitary Gland: Diabetes Insipidus

- Definition
- Incidence
- Etiology
- Risk Factors
- Pathophysiology
Diabetes Insipidus

- Physical Examination
  - Integumentary
  - Cardiovascular
  - Polyuria, Polydipsia
  - Neurologic

- Diagnosis
  - Urine output
  - Plasma and Serum osmolality
Diabetes Insipidus

- **Surgical Management**
  - Remove posterior pituitary tumor

- **Medical Management**
  - IV Fluids
  - DDAVP
  - Diuretic
Diabetes Insipidus

Nursing Management

- Monitor Intake and Output
- Monitor for excessive thirst or urination
- Assess Urine specific gravity
- Monitor daily weights
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Diabetes Insipidus

- Surgical Management
  - Remove posterior pituitary tumor

- Medical Management
  - IV Fluids
  - DDAVP
  - Diuretic
Diabetes Insipidus

- Nursing Management
  - Monitor Intake and Output
  - Monitor for excessive thirst or urination
  - Assess Urine specific gravity
Disorders of the Pituitary Gland: SIADH

- Definition
- Incidence
- Etiology
- Risk Factors
- Pathophysiology
SIADH

- **Physical Examination**
  - Decreased deep tendon reflexes
  - Fatigue, headache, nausea
  - Decreased mental status
  - Seizures
  - Coma

- **Diagnosis**
  - Urine specific gravity
  - Plasma ADH
  - Serum Na+ osmolality
  - Urine osmolality
SIADH

- **Medical Management**
  - Fluid Restriction
  - Isotonic or Hypertonic Fluids
  - IV Lasix or Bumex
  - Lithium
  - Treatment of underlying cause
SIADH

- Nursing Diagnosis
  - Excess Fluid Volume
    - Assess LOC, VS, I&O
    - Monitor lab results
    - Maintain fluid restriction
    - HOB elevate 10-20 degrees
    - Administer Hypertonic IV fluids
    - Seizure precautions
Disorders of the Anterior Pituitary Disorders

- Hyperpituitarism
  - Oversecretion of pituitary hormones
- Hyperprolactinemia
- Acromegaly
- Gigantism
Disorders of the Anterior Pituitary Disorders

- Hypopituitarism
  - Deficiency of pituitary hormones
  - Short stature
  - Sexual and reproductive disorders
  - Hypothyroidism
  - Prolactin deficiency