

Hyperthyroidism

Symptoms and signs

- Signs of hypermetabolic state: restlessness, tachycardia, diaphoresis, hyper-defecation, weight loss, palpitation
- Apathetic hyperthyroidism: elderly patients often don't have classic symptoms, but may present with lethargy, weight loss, SOB and afib
- Thyroid Storm: Fever, delirium, stupor, coma, tachycardia, arrhythmias, CHF, vomiting/diarrhea, hepatic failure

Work up

- TSH suppressed (except in pituitary disease), T4 and/or T3 increased
- ESR can be increased in subacute thyroiditis
- Anti TPO Ab often positive in silent thyroiditis
- Radioactive iodine uptake can be useful to differentiate between causes (contraindicated in pregnant patients): diffuse high uptake in graves', focal high uptake with toxic nodule, very low uptake in subacute thyroiditis.
- Burch-Wartofsky Point Scale (BWPS) is a scoring system to help identify thyroid storm

Management

Medical Therapy

Symptom Management: Propranolol to control symptoms and tachycardia (blocks adrenergic effects and peripheral conversion of T4 to T3). Beta blockade can be stopped once anti-thyroid treatment takes effect.

Inhibition of hormone synthesis: Methimazole or PTU. Methimazole is generally preferred due to better side effect profile (PTU preferred in pregnancy). Obtain baseline CBC and LFT's

Definitive therapy: Radioactive iodine ablation

Thyroid storm

- Consult endocrinology
- Supportive therapy with IVF, Oxygen and acetaminophen, likely ICU
- Avoid ASA as it can displace T4 from TBG
- Immediately start PTU 200-300mg PO q4-6hr

- Follow with saturated solution of potassium iodide to inhibit conversion of T4 to T3
- Consider propranolol 60-80mg PO q4-6hr to control tachycardia (caution in Heart Failure)
- Consider hydrocortisone 50-100mg IV q6-8hrs x48 hrs (blocks conversion of T4-T3)

Hospitalist Handbook

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