EmergencyKT: Thyroid Crisis

**Classic Symptoms**
- **Severe thyroid crisis**
  1. Tachycardia
  2. Fever
  3. Hypertension
  4. AMS

**Compensated Thyroid Crisis**
1. Weakness
2. Weight loss
3. Palpitations

**Supporting Signs & Symptoms**
- Anxiety/Agitation/AMS/Paranoia
- Sweating
- Heat intolerance
- N/V/D
- Goiter
- Hyperactive reflexes
- Polydipsia
- Increased appetite

**Diagnosis of Thyroid Crisis Made**

**Labs/Evaluation**
- TSH, T3, Tot T4, Free T4
- Cardiac markers, BNP
- Other labs as indicated
- EKG, CXR

**Initiate Treatment And Call for admission**

**Tachycardia/HTN?**
- **Yes**
  - Beta Blocker
  - Propranolol 60-80mg PO
  - Repeat Q4-6hrs
  - Titrate for HR and BP

- **No**
  - Dexamethasone 2mg IV Q6hrs
  - PTU 600-1000mg PO then 200-300mg Q4-6hrs
  - (PTU alternative: Methimazole 20mg PO Q4-6hrs)

**Prolonged ED Stay?**
- **Yes**
  - Iodine
  - Lugol's Solution 6-8 drops Q6-8hrs
  - OR
  - Potassium Iodide 5 drops PO Q6H
  - **If iodine allergic, use lithium carbonate 300mg PO Q6H**

- **No**

**Consider Alternative Diagnoses**
- Hypoglycemia
- Hypoxia
- Sepsis
- Heatstroke
- Opioid withdrawal
- Encephalitis/Meningitis
- Tox (ETOH, Benzo, Barb)

**Additional Treatment Considerations**
- IVF - Treat empirically with IVF. Dehydration likely.
- Fever -- Acetaminophen *(Avoid ASA)*
- High Output Failure (Pulmonary edema and volume depletion)
- Hold diuretics
- Consider esmolol IV instead of propranolol
- Consider cardiac U/S
- Admit to ICU

- if h/o thionamide toxicity i.e., agranulocytosis or hepatotoxicity, continue beta blockers and dexamethasone but consult endocrine for iodine

- Contraindicated in pregnancy. Use PTU if patient is pregnant

**Most Common Symptoms in patients younger than 50**
- Anorexia
- Atrial fibrillation
- Goiter
- Autonomic Changes

**Most Common Symptoms in patients older than 50**
- Tachycardia
- Fatigue
- Anorexia
- Weight loss

References: