

#### HPI

- 57 year old female
- 2007 thyroid nodule palpated by PCP
- Diagnosed with multinodular goiter
- High T3 (212), low TSH (<0.01), elevated anti-TPO antibodies
- RAI scan in 2009
  - Increased uptake in left known nodule, no cold nodules

#### **HPI**

Noted increase in size of left nodule

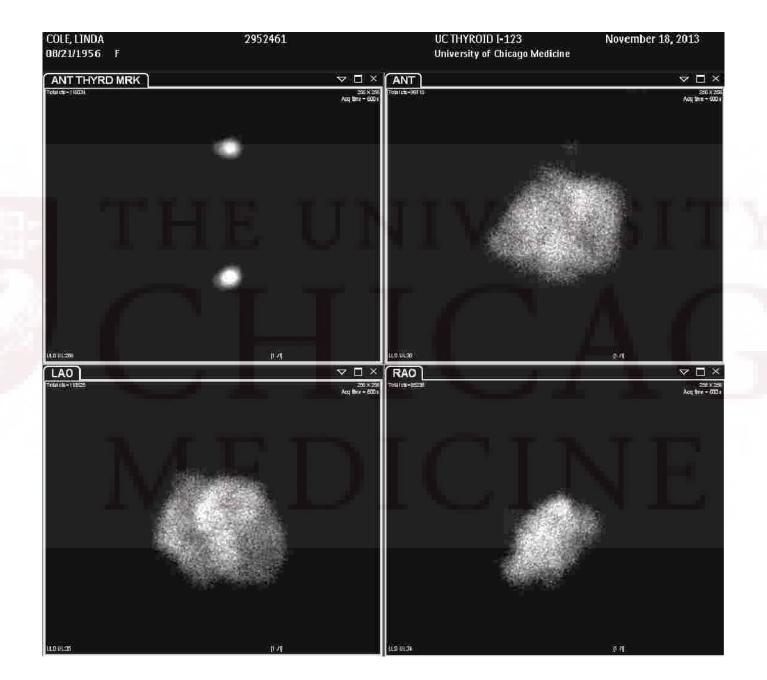
- Daughter came home from college and noticed her mother sounded stridorous
  - No shortness of breath, difficulty swallowing, or voice changes
  - Forced her mother to see her endocrinologist
- TSH < 0.01
- T3 434

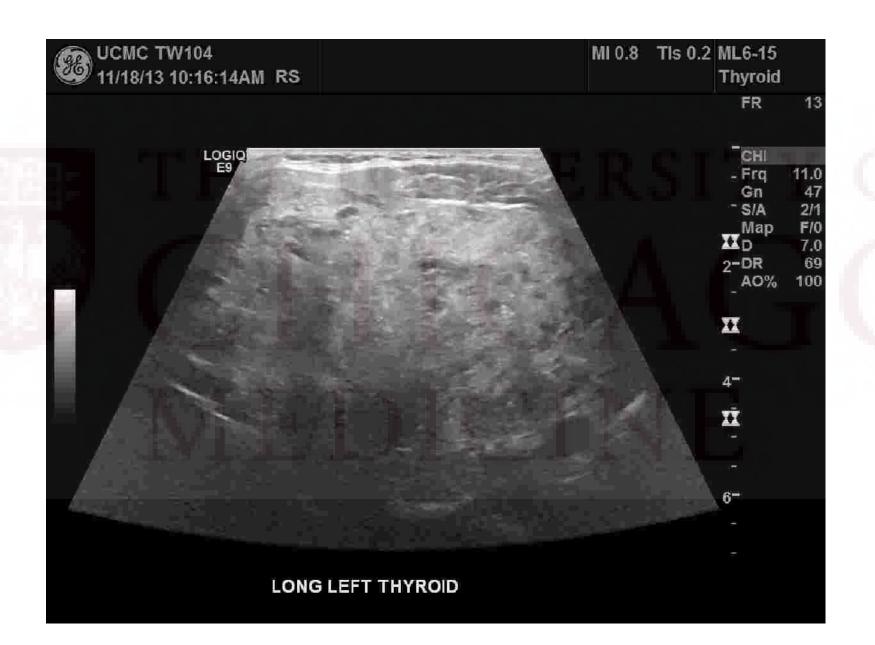
#### **PMHx**

- PMH:
  - Hyperthyroidism
  - Multinodular goiter
- PSH:
  - Abdominoplasty
  - Lap band
  - Bilateral knee replacements
- Social:
  - Teacher
  - No history of radiation
- Family:
  - Noncontributory
- Meds: methimazole, MVM

## **Imaging**

- Ultrasound:
  - Enlarged thyroid with multiple nodules bilaterally
  - Left lobe increasing in size, now 9cm and composed of conglomerate nodules which have grown together
- Radio-active iodine scan:
  - Dominant nodule in left lobe now a cold nodule
  - Toxic multinodular goiter otherwise
- FNA of large left nodule:
  - Papillary thyroid cancer

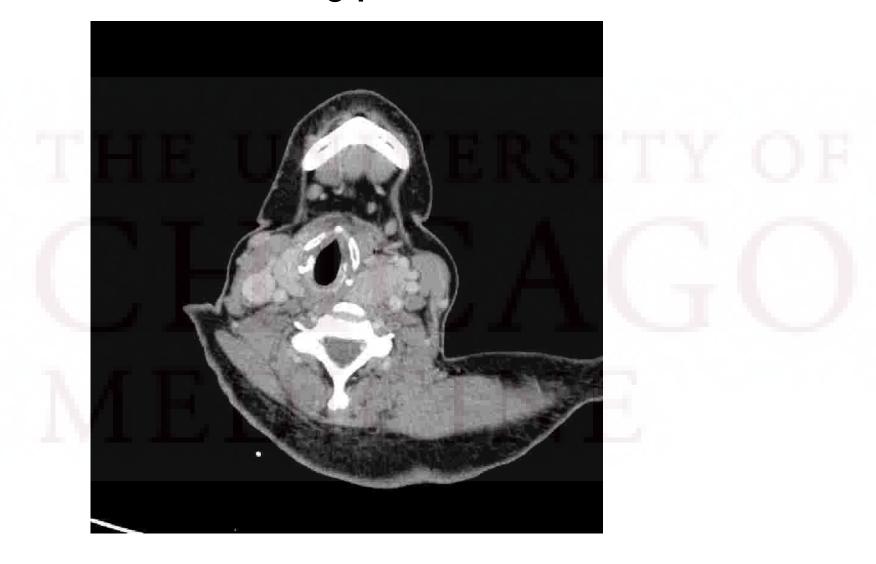


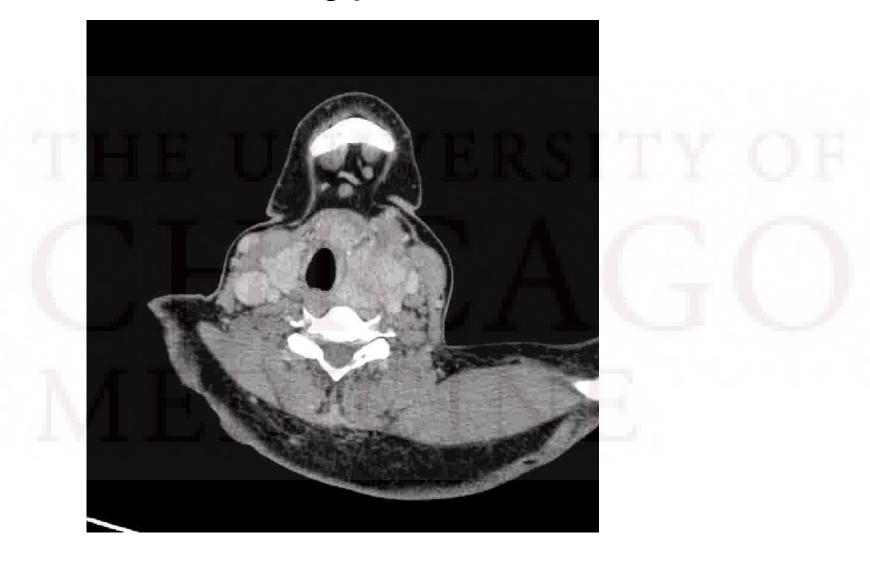


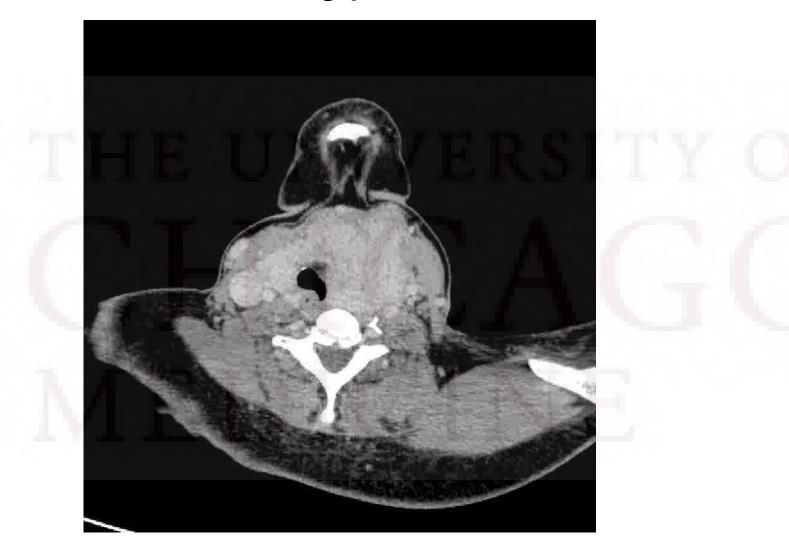










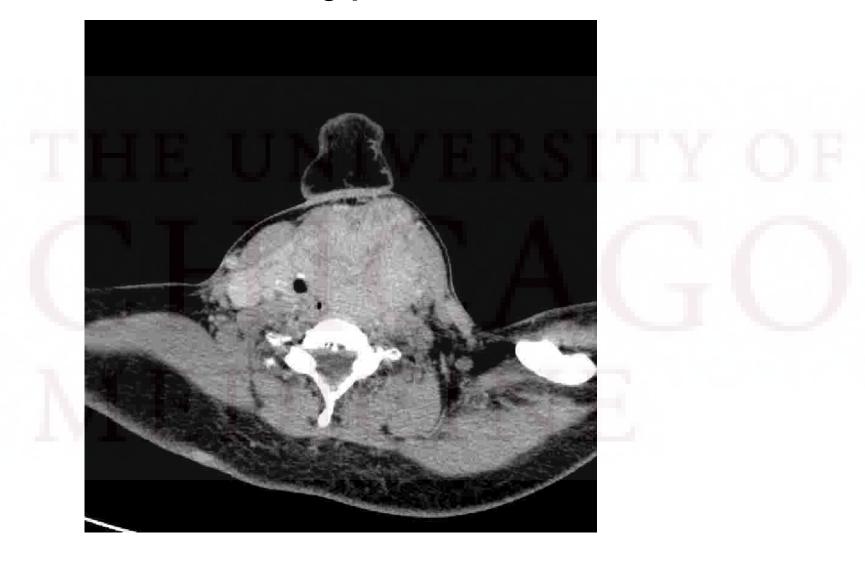




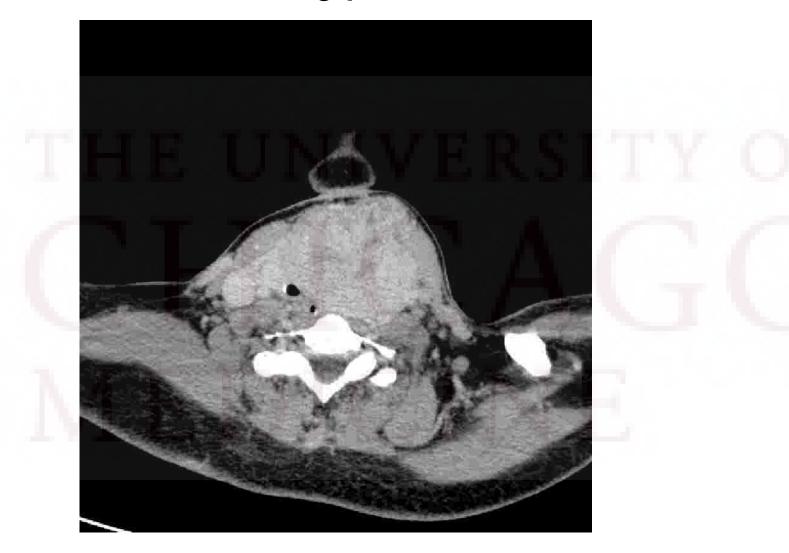


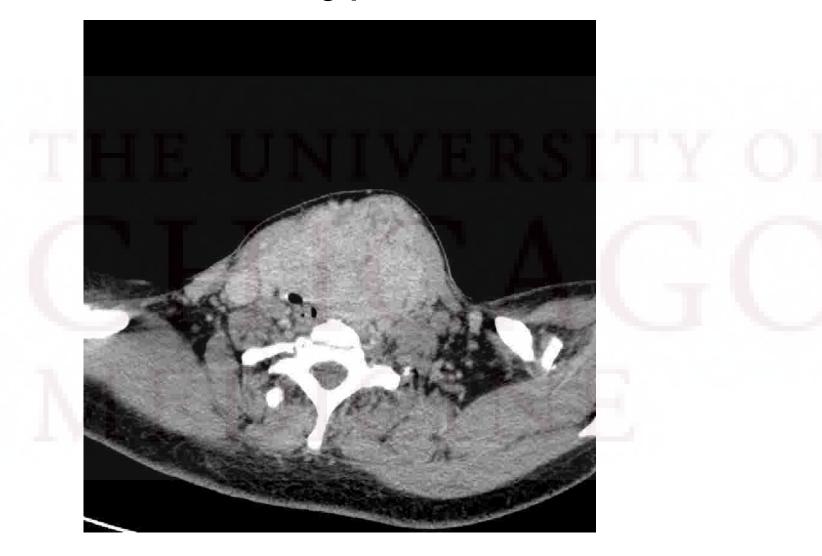


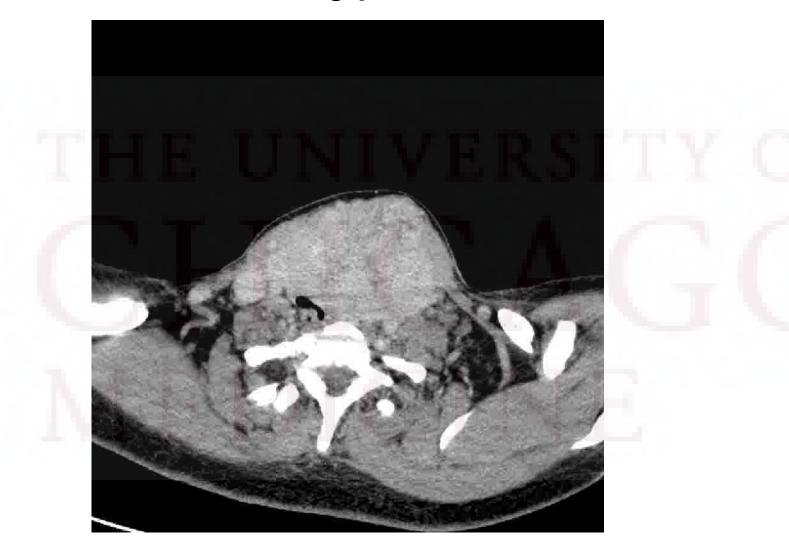


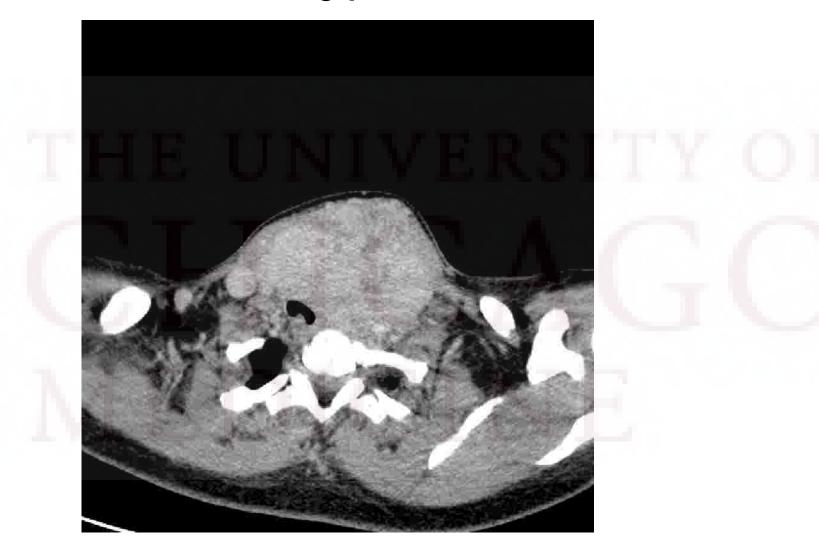


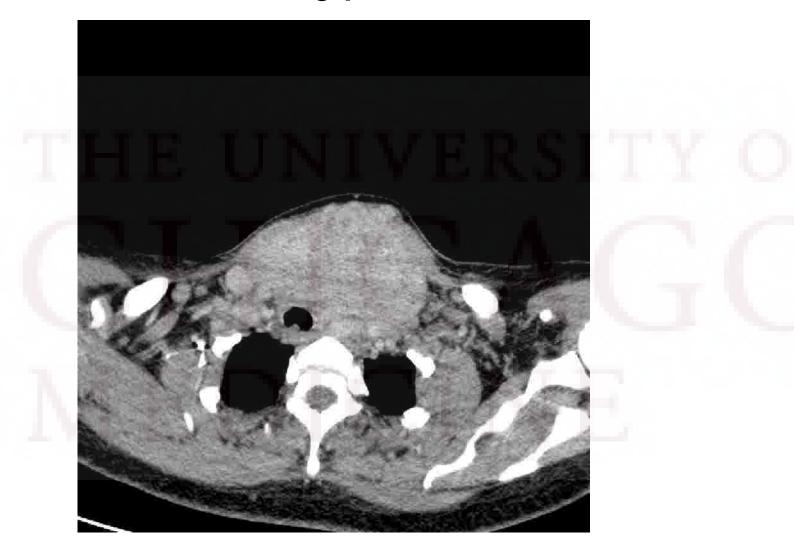




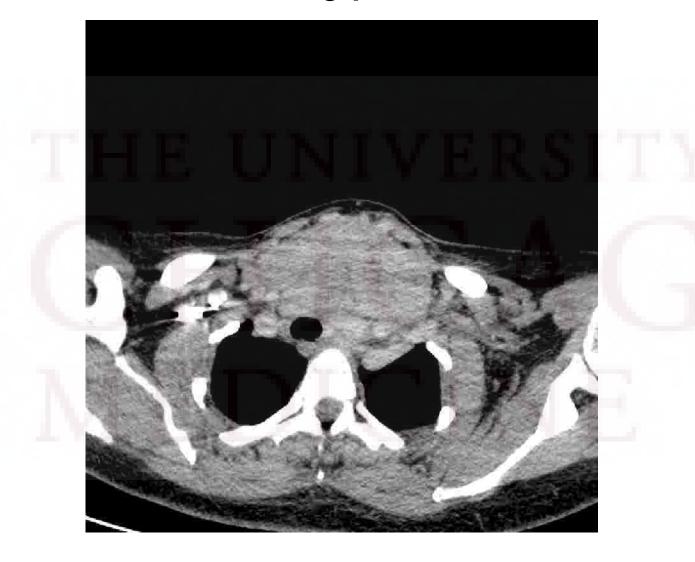


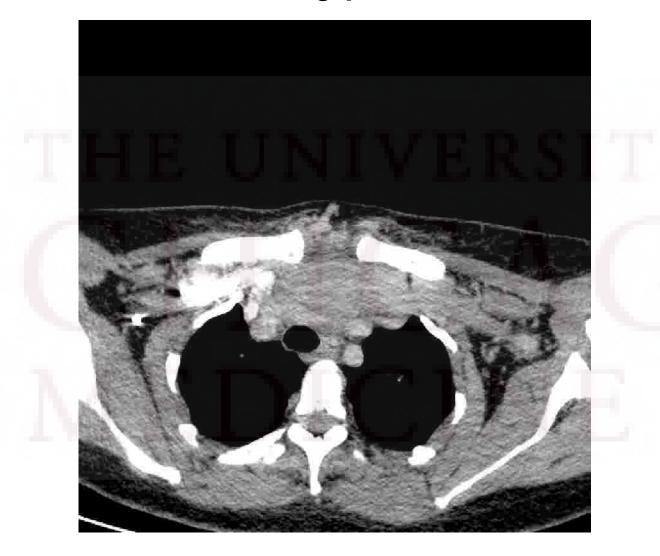


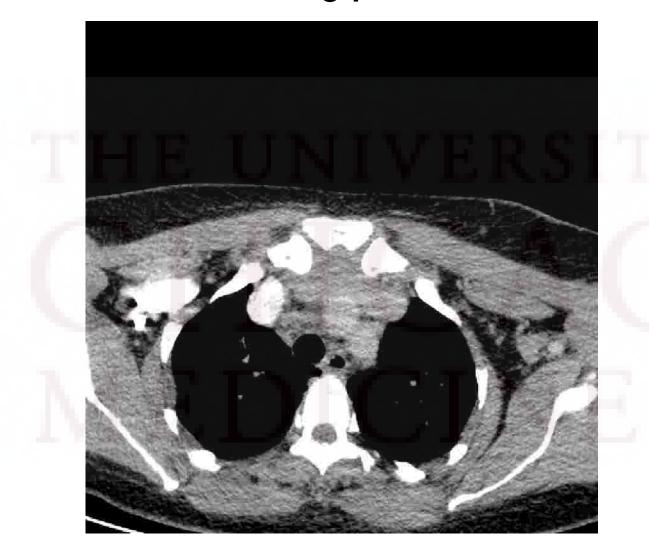












#### **ENT** visit

- Flexible larygoscopy
  - Bilateral vocal cord paresis
- Arrangements made for OR to have cardiac surgery available for ECMO if unable to intubate

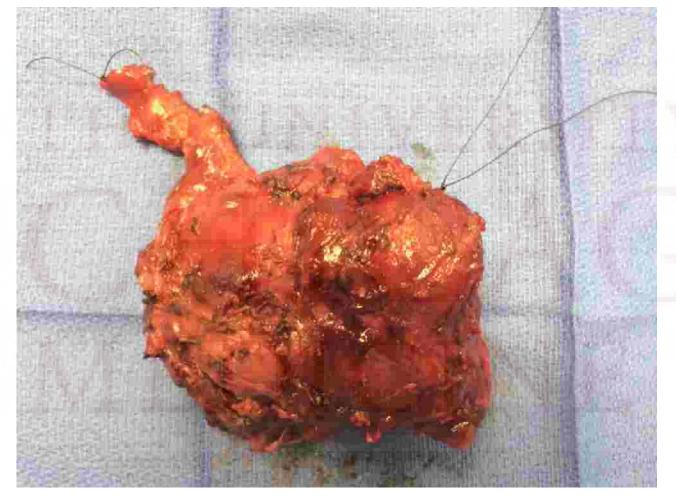
#### OR

- Bilateral femoral vein lines placed
- Awake fiberoptic intubation with ENT and cardiac surgery on standby
- Total thyroidectomy
  - Strap muscles adherent to thyroid
  - Left jugular compressed and adherent to thyroid mass
- Left levels 2 and 3 lymph nodes enlarged on imaging but normal appearing in OR
  - Resected, no formal neck dissection

#### OR

- Bilateral recurrent laryngeal nerves visualized intact
  - Nerve stimulator
    - Right nerve conducted a signal
    - Left nerve did not conduct a signal
- Mild tracheomalacia
  - Tracheopexy per ENT
- Drain placed







### Immediately postop

- Good respiratory dynamics, received dexamethasone during case
- Patient extubated easily in OR
- Preoperative stridor noted to be worse, but breathing and saturating well
- Stridor continued
  - Despite racemic epi and duonebs
- Saturations dropped to 88-92%
  - Attempt at facemask; ABG sent showing good oxygenation but pCO2 of ~65
  - BiPAP used, pCO2 dropped appropriately
- 90min postoperatively, patient saturating well but expressing that she is feeling very tired, having difficulty breathing
  - Elective reintubation
    - Vocal cord edema encountered

### Hospital stay

- ICU for 36 hours intubated and sedated
- Dexamethasone for first 24 hours
- Good cuff leak
  - Extubated easily, weaned to room air quickly
- Stridor had resolved
  - Hoarse voice
- Discharged home PostOp day 5





