Thyroid Mass

1:20 adults have thyroid masses
1:20 new thyroid nodules are carcinomas
Risk factors for malignancy: Male, Pain, Age <20, >45, extracapsular, FHx, >4cm, radiation Hx, rapid growth, metastasis, Hashimoto's/Grave's Hx, compression

>1cm (palpable): Draw TSH

Low TSH

I\textsuperscript{123} or Tc\textsuperscript{99} scanning

>1cm: Draw TSH

Low TSH

I\textsuperscript{123} or Tc\textsuperscript{99} scanning

<1cm: Observe

High TSH

<1cm: Observe

Normal TSH

Ultrasound

Cold

<1cm: Observe

>4cm: Thyroidectomy

Very low suspicion >2cm, Low suspicion >1.5cm, IM or high suspicion >1cm, cystic: FN

Malignancy:

RAIT

RAIT/Uptake Scan 6 weeks after surgery, TSH >50, then ablation with I\textsuperscript{131}. Chemoradiotherapy may be used for insensitive or non-operable recurrence

Follicular
Adenoma/Carcinoma

Follicles in an array, pericapsular invasion*

15-20% of all tumors, Adenoma is most common benign tumor

Well differentiated but cannot define adenoma vs carcinoma on FNA

Good prognosis, heme spread

Variant: Hurthle Cell

Papillary
Adenoma/Carcinoma

Papillae, orphan annie eyes, psammoma body

70-85% of all tumors, Carcinoma most common malignancy

Well differentiated, associated with Hashimotos, XRT

Very good prognosis, lymph spread

Variant: Tall cell, columnar cell

Medullary
Adenoma/Carcinoma

Parafollicular C-cell origin

5-5% of all tumors

Poorly differentiated

Good prognosis, heme spread

Variant: Hurthle Cell

Anaplastic
Adenoma/Carcinoma

Thyroid epithelium, giant/spindle cells

<2% of all tumors

Anaplastic

Other

<1% of all tumors

Squamous cell, lymphoma, mets

<5% of all tumors

Prognosis varies

RAIT

RAIT/Uptake Scan 6 weeks after surgery, TSH >50, then ablation with I\textsuperscript{131}. Chemoradiotherapy may be used for insensitive or non-operable recurrence

Follicular Lesion of Unknown Significance: Repeat Bx

Follicular Neoplasm: Subtotal with completion +/- RAIT

Suspect Malignancy: Total/subtotal thyroidectomy, +/- RAIT

Papillary Carcinoma

Total or near total thyroidectomy +/- RAIT

Metastatic Tumor

Total Thyroidectomy

Medullary/Anaplastic

Total Thyroidectomy

+/− MND with Chemoradiation, (no RAIT for medullary) or palliative care

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Total or near total thyroidectomy +/- RAIT

Metastatic Tumor

Total Thyroidectomy

Medullary/Anaplastic

Total Thyroidectomy

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