

# Lecture

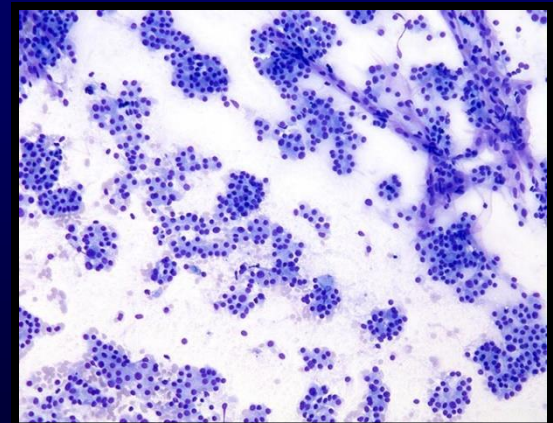
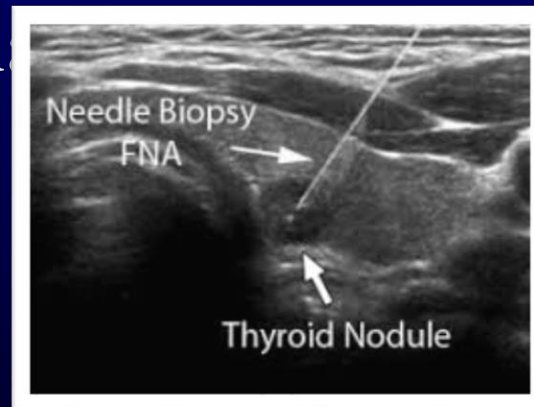
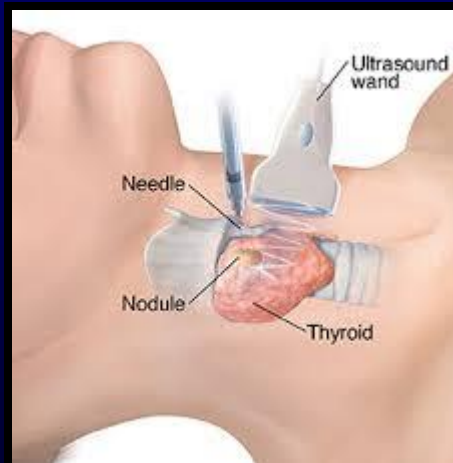
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# THYROID NEOPLASMS:

- **Benign >>>>>>> malignant.**
- **Most are adenomas**
- **Risk increases when:**
  - **Solitary nodule > than multiple ones**
  - **Male nodules > than female ones**
  - **Age < than 20 or > than 70 year**
  - **Family Hx. And hx, of radiation**
  - **Cold nodule >>>>> Hot nodules**

# **FINE NEEDLE ASPIRATION (FNA):**

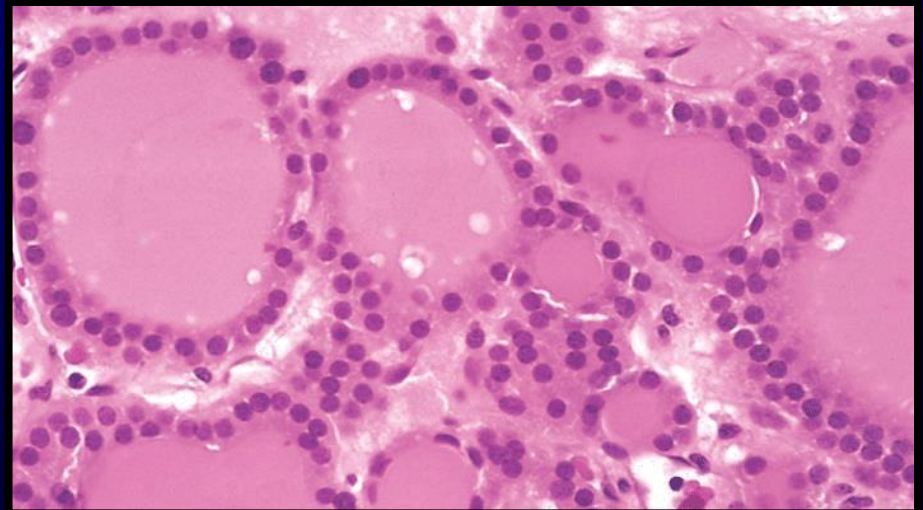
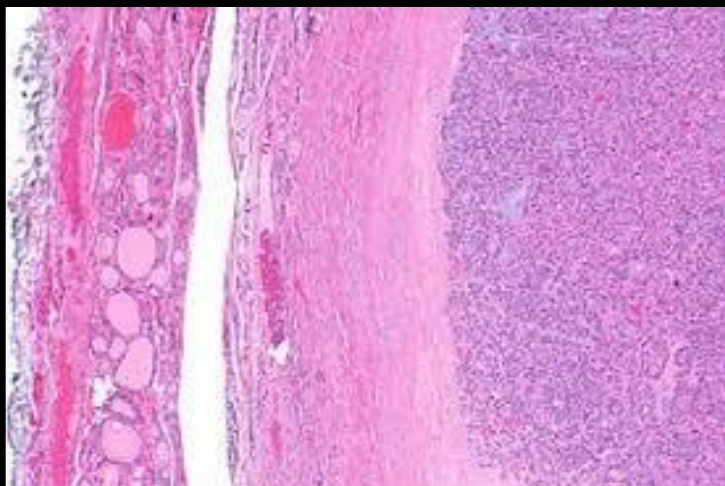
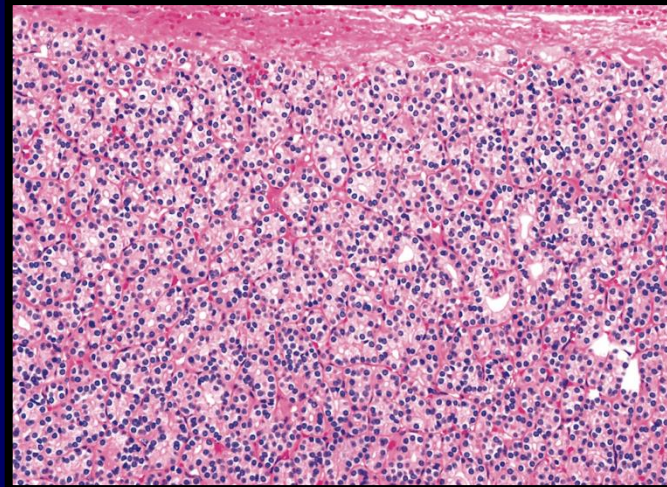
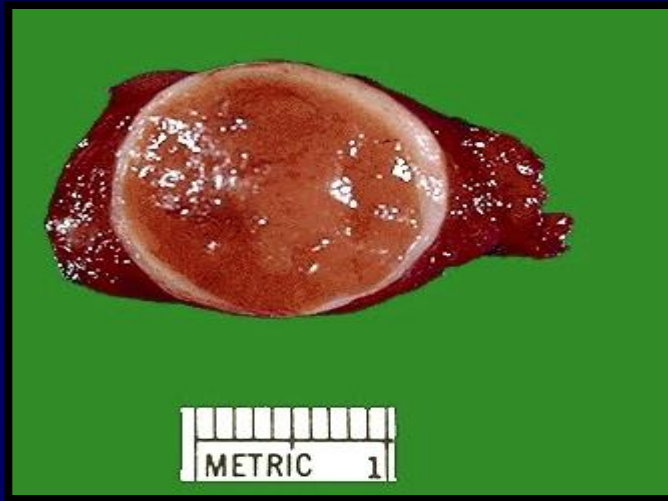
- **Simple and cost effective diagnostic approach**
- **It is now the standard for evaluation of thyroid nodules**
- **The accuracy is very good and currently it**



# **FOLLICULAR ADENOMAS:**

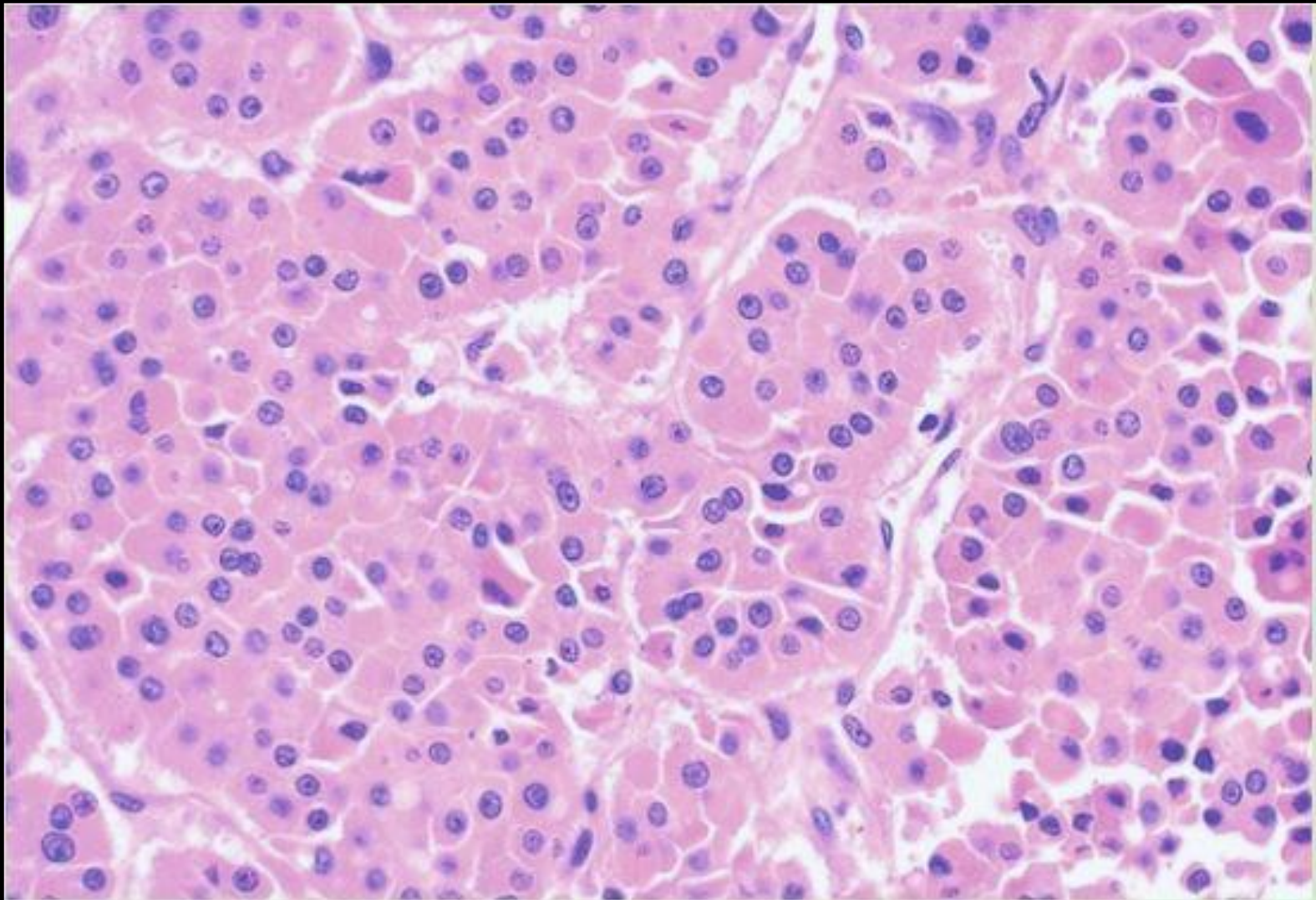
- **Almost all adenomas are follicular**
- **Autonomous adenoma; driver mutations in TSH stimulation; rarely RAS mutations**
- **Solitary, well-circumscribed with intact thick capsule. Bland cells or Hurthle cell (Hurthle cell adenoma). Occasional atypia can be seen**
- **Intact capsule is the main distinguishing feature from follicular carcinoma**

# PATHOLOGIC FEATURES OF FA:





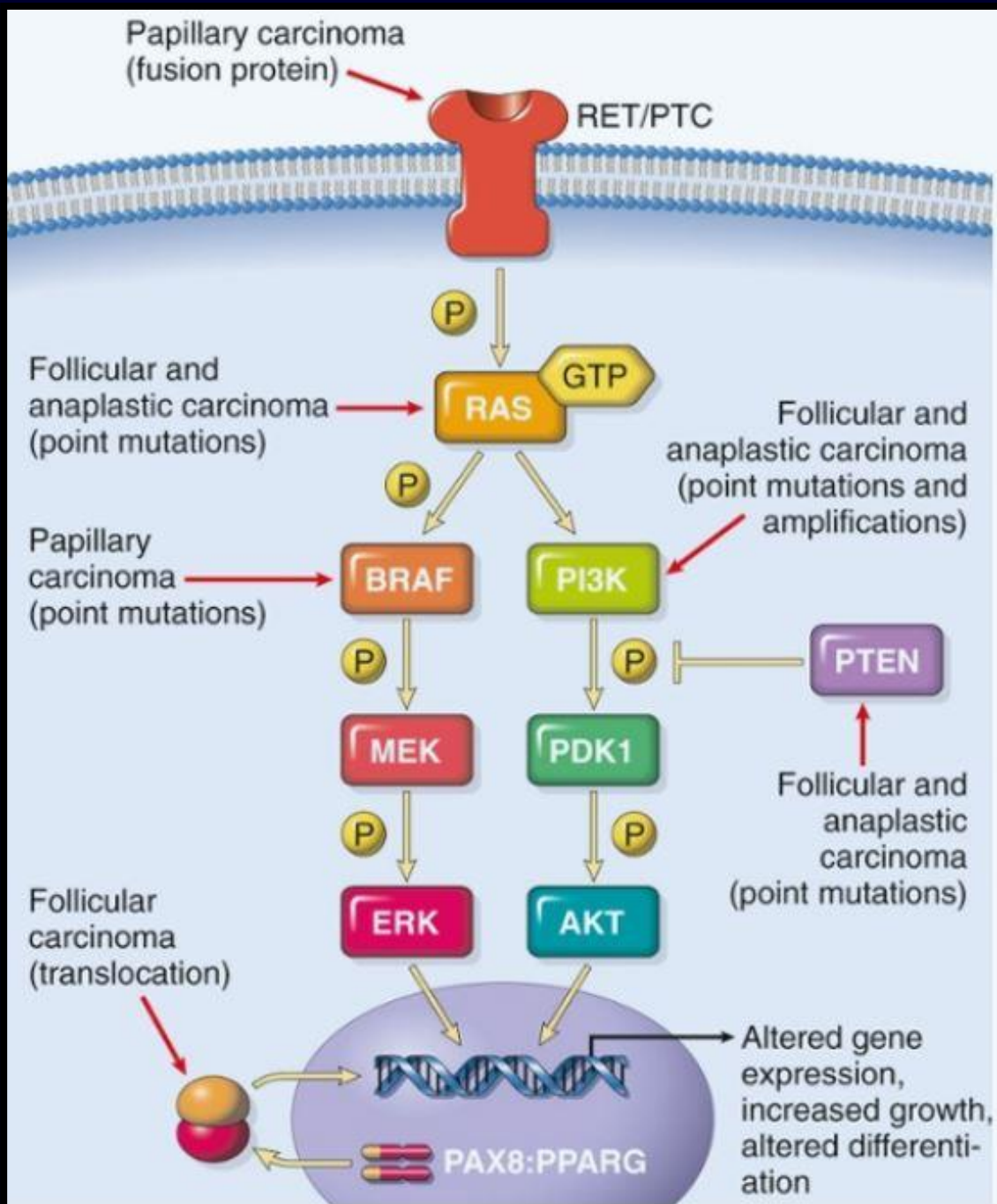
# HURTHLE CELL ADENOMA:



# THYROID MALIGNANCIES:

- Relatively common but not aggressive
- More common in females
- Risk factors: ionizing radiation  
(Chernobyl 1986) and iodine deficiency

PAPILLARY CARCINOMA	85% LYMPH NODE METASTASIS
FOLLICULAR CARCINOMA	5-15% HEMATOGENOUS SPREAD
ANAPLASTIC CARCINOMA	< 5%; VERY AGGRESSIVE
MEDULLARY CARCINOMA (C-CELLS)	5%, MAYBE PART OF MEN2 SYNDROMES
LYMPHOMA	1% B CELL NON HODGKIN





# **PAPILLARY THYROID CARCINOMA**

- **Most common**
- **Relatively indolent, 10 year survival > than 95%, even with lymph node metastasis**
- **Uni and multifocal**
- **Preoperative dx by FNA is accurate**
- **Nuclear features most important**
- **Features: papillae, nuclear grooves, pseudonuclear inclusions, psammoma bodies, Orphan Annie eye nuclei**

