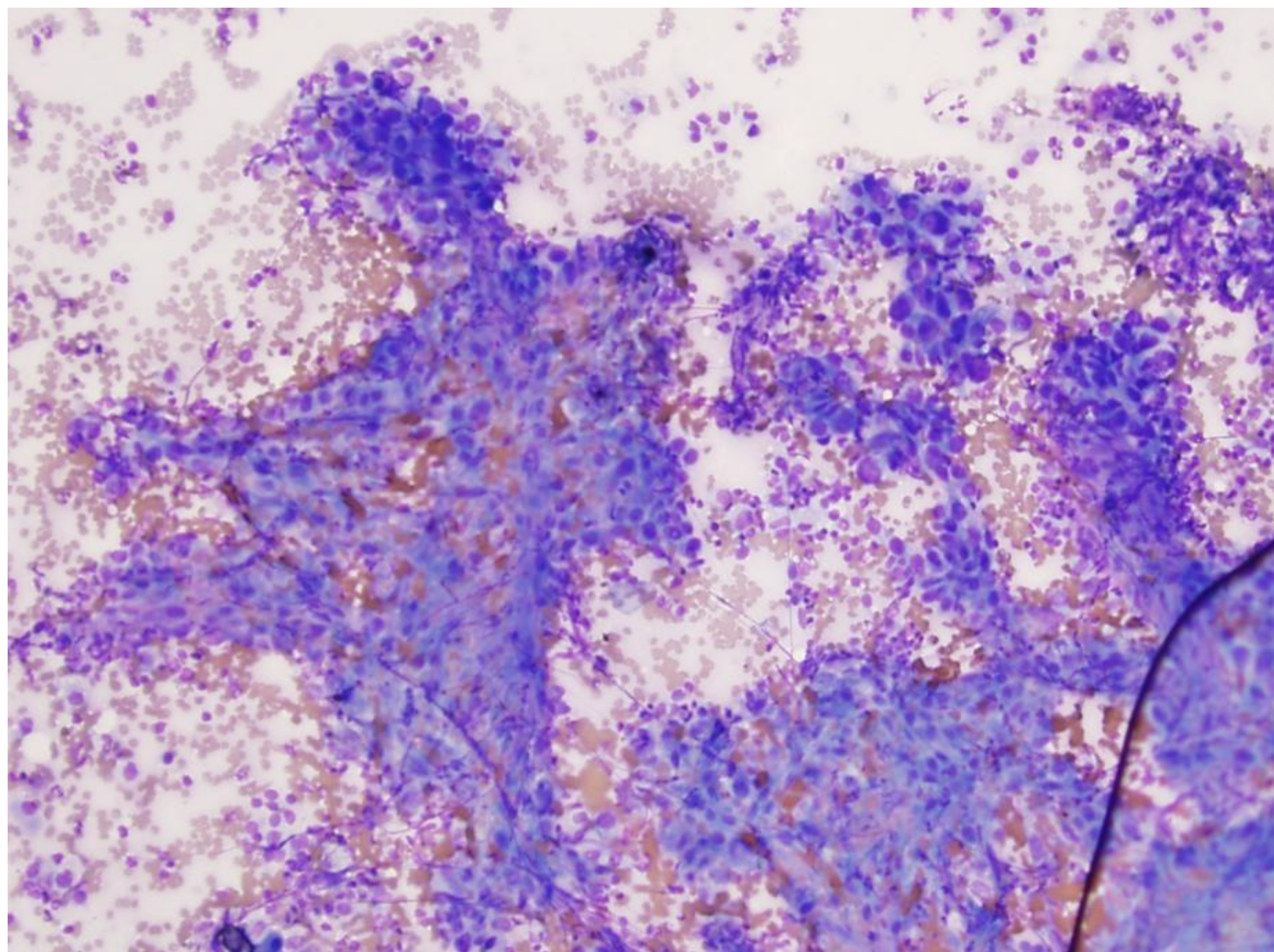


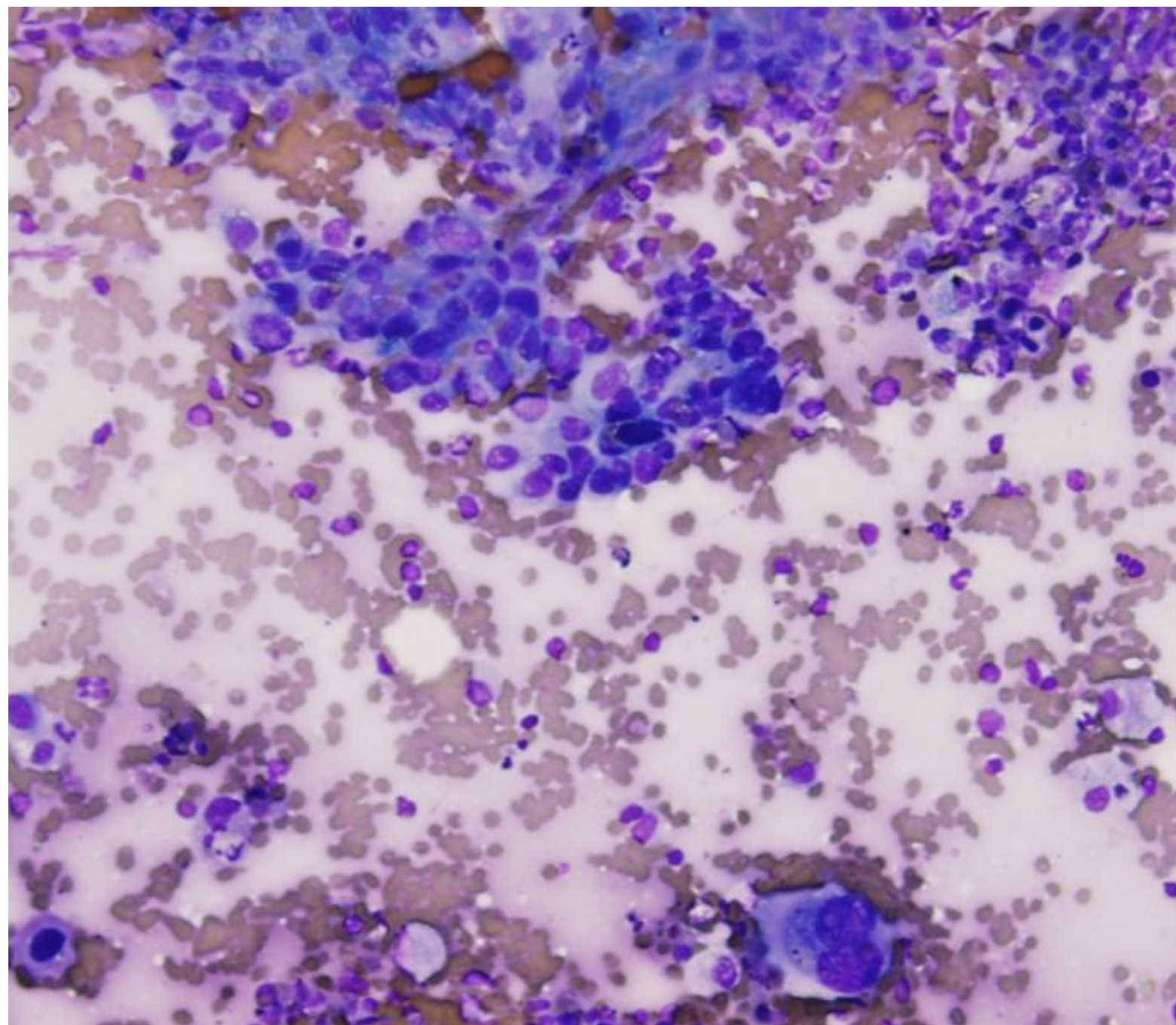
Interesting Case Conference

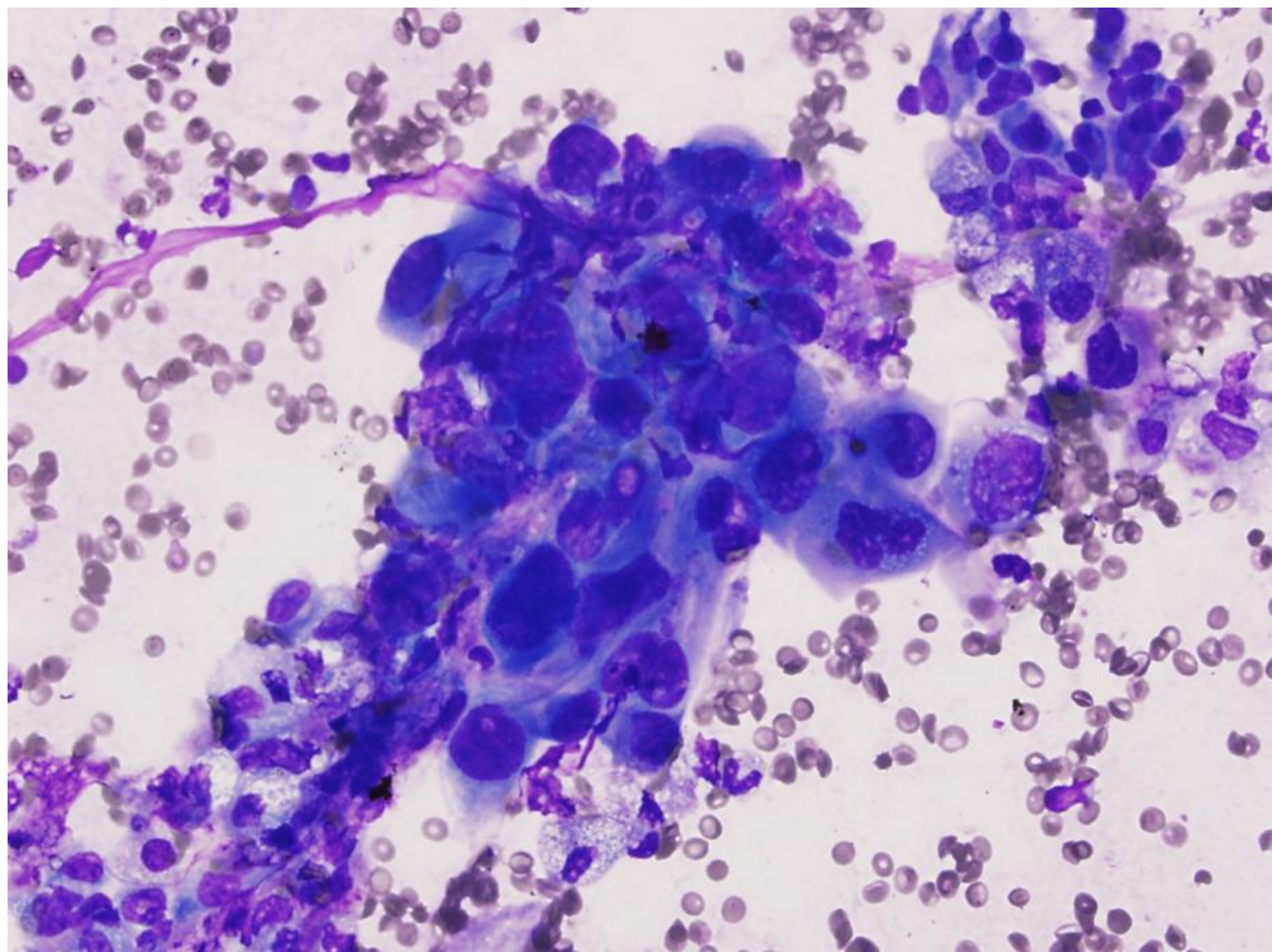
11-18-2013

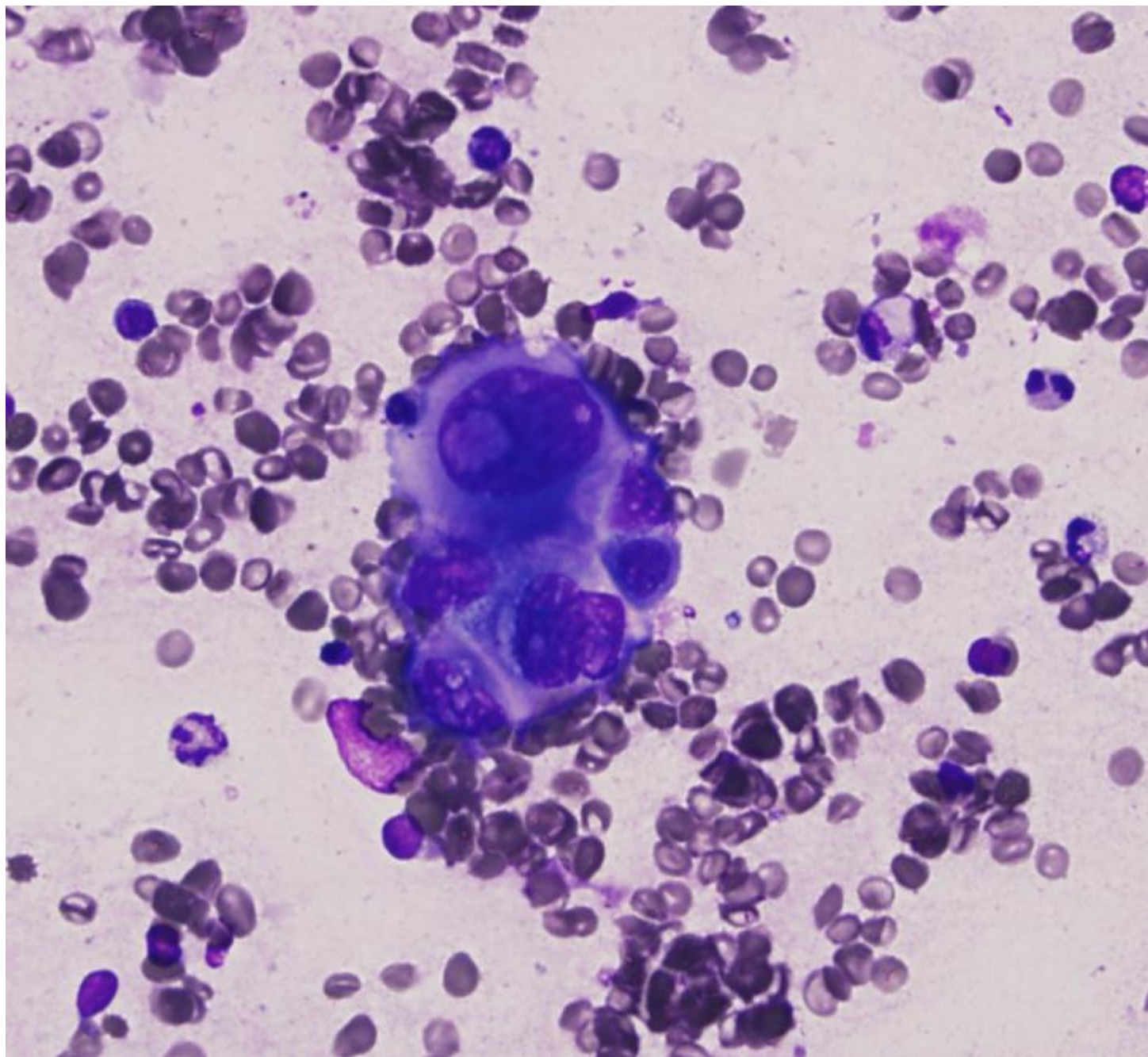
ENT clinic – History at time of procedure

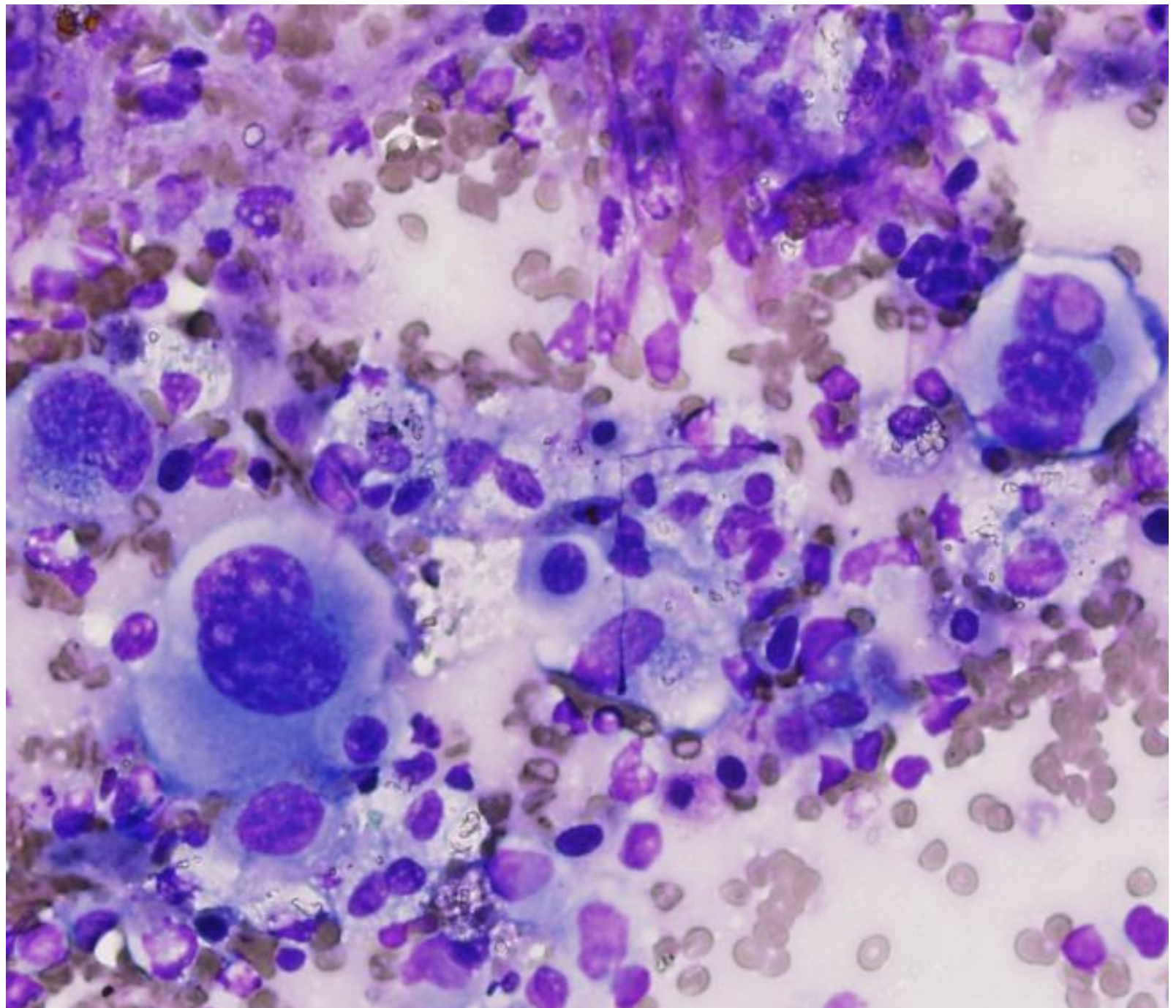
- 92 yo Female with thyroid mass
- Present for *several years*
- No other significant hx available











On-site Assessment

Positive for poorly-differentiated neoplasm.

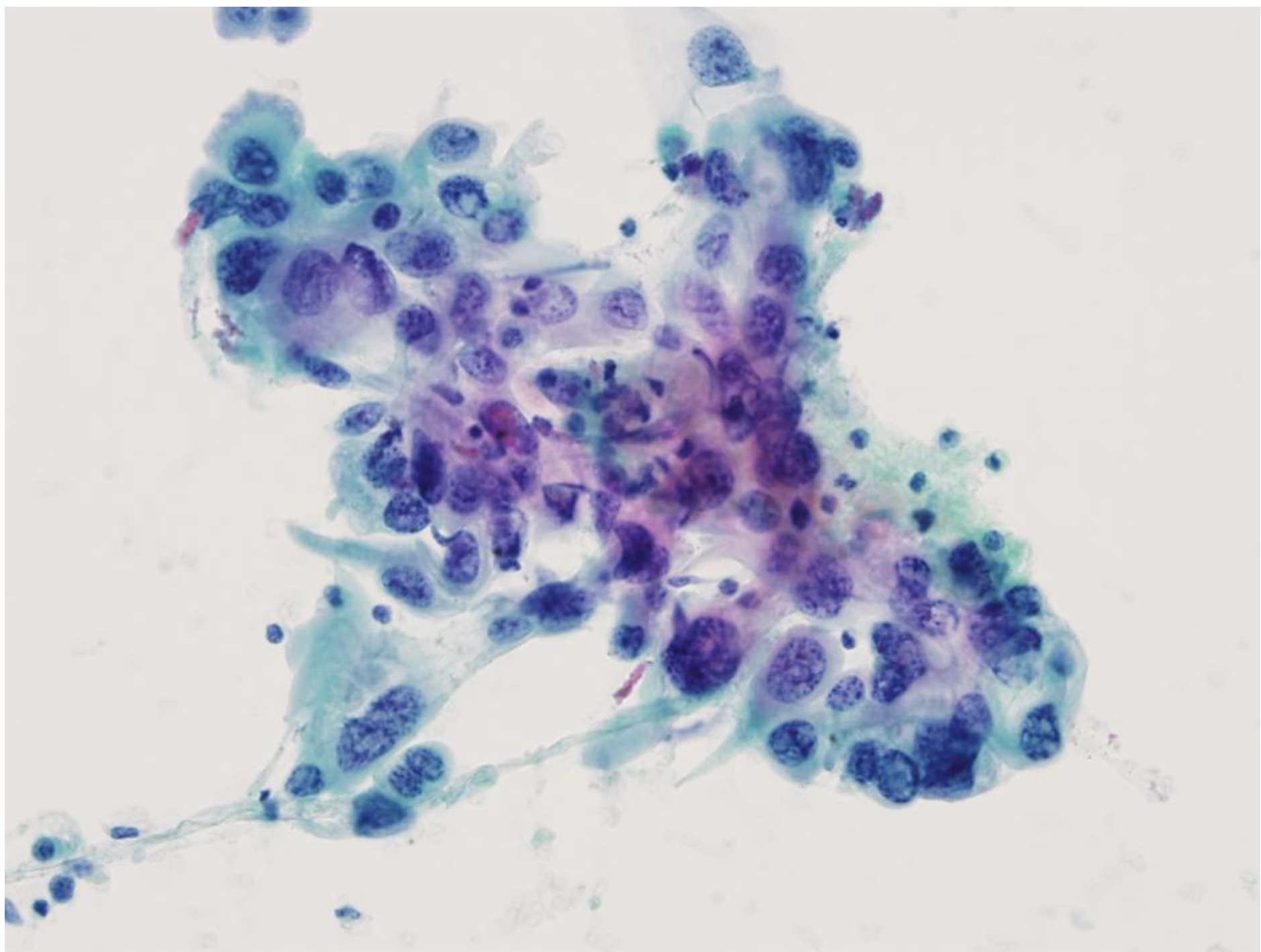
Comment: The differential diagnoses include, but are not limited to anaplastic thyroid carcinoma, metastatic carcinoma, and metastatic melanoma.

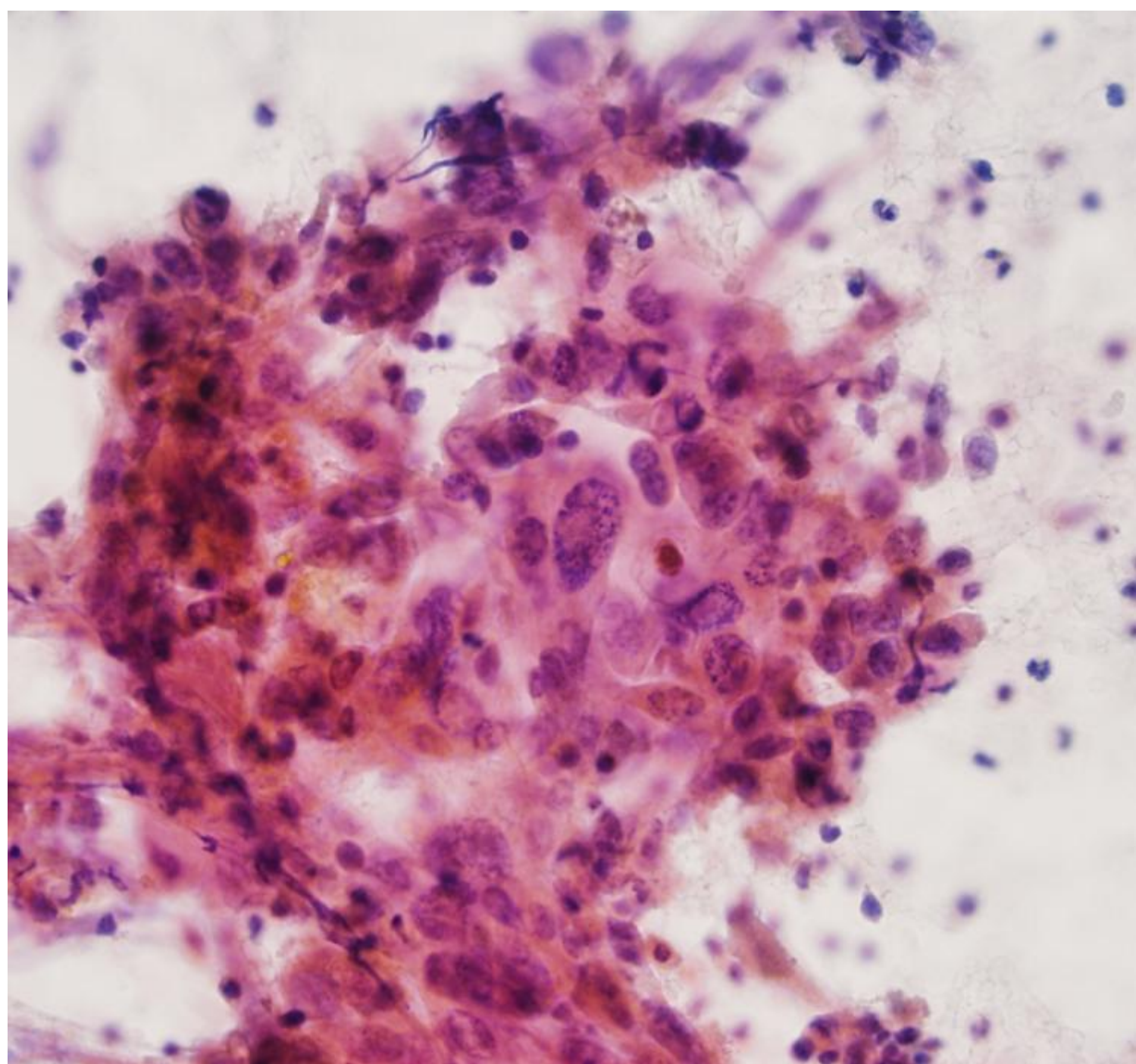
Hx – provided afterwards

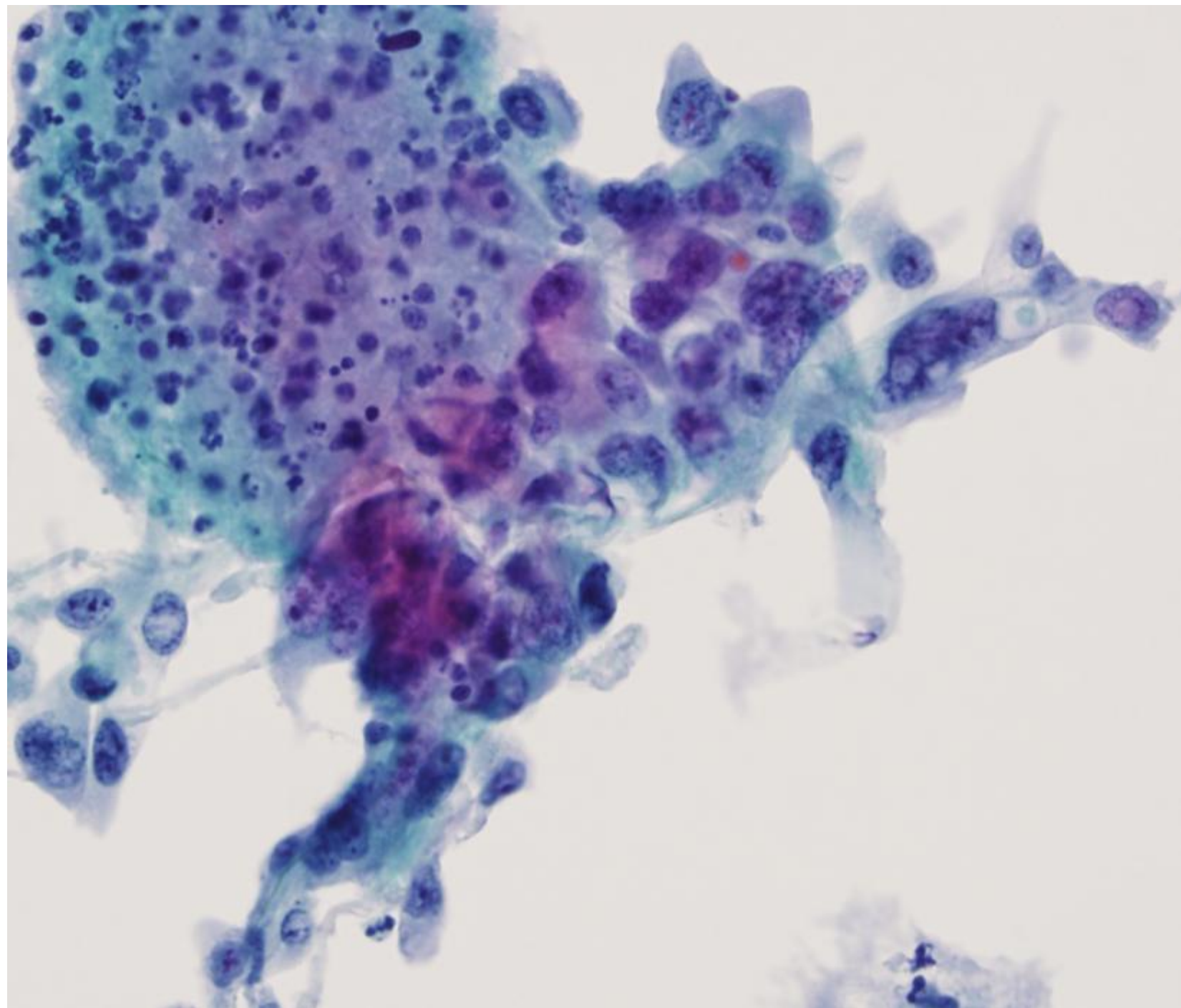
- 92 yo F with right neck mass
 - Had “lump” in neck for several years
 - Sept 2013 pt sought advice from PCP due to enlargement
 - Hoarse voice 4-6 weeks
- Prior thyroid/thymus surgery, pt uncertain
- No other cancer hx
- No tobacco or Etoh use
- Exam
 - Right sided asymmetry, mass that is firm and fixed that is measuring at least 4 x 4 cm
 - No lymphadenopathy

Radiology

- Heterogeneously enhancing mass with internal calcifications located in the expected position of the right thyroid lobe.
- The mass appears to only have local extension, measuring 5.8 cm x 5.8 cm x 4.6 cm.
- There is obstruction of the fat deep to the thyroid cartilage adjacent to the trachea concerning for soft tissue invasion in this area
- There is enlargement of the laryngeal vestibule and right piriform sinus which suggest right vocal cord paresis.



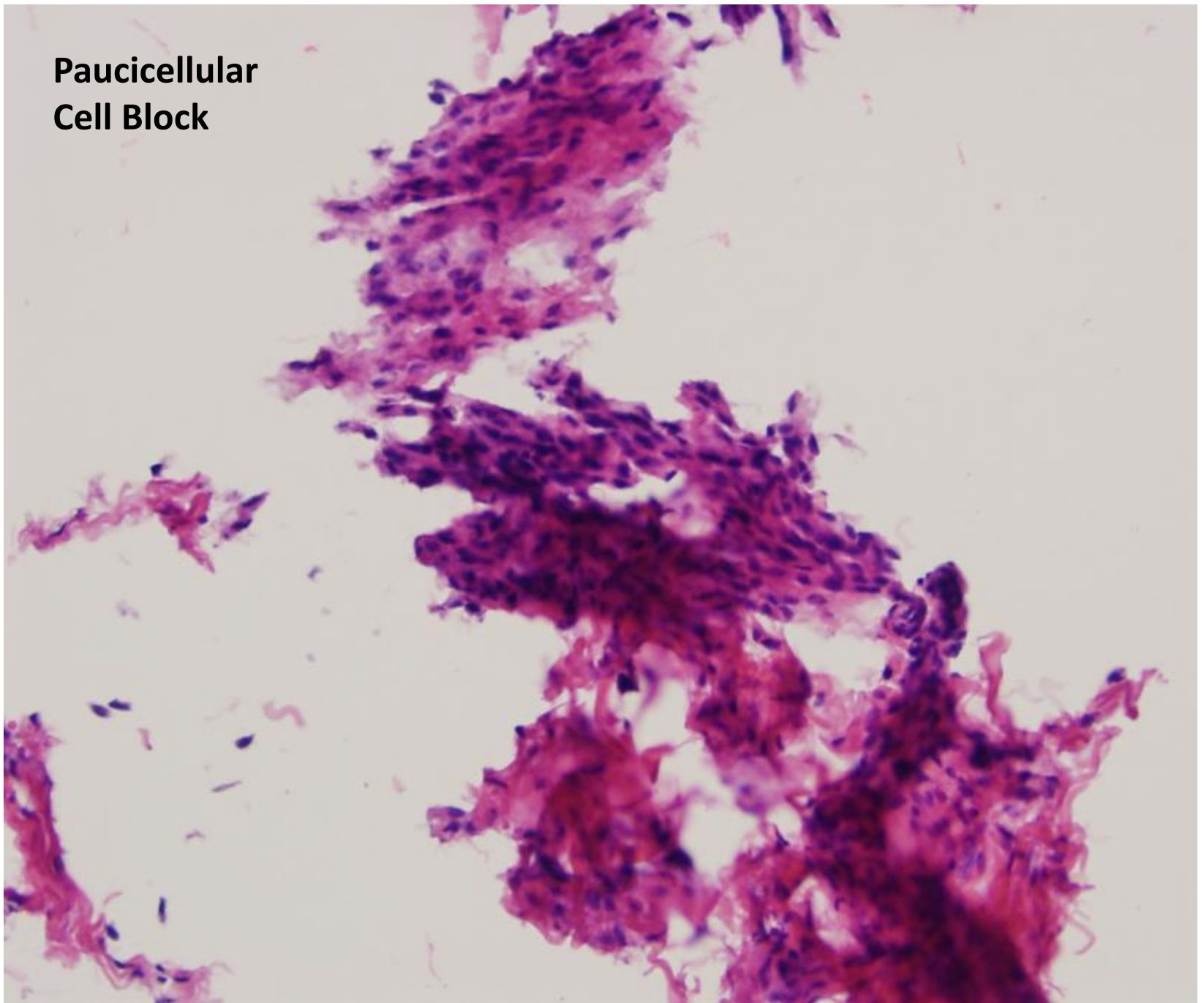


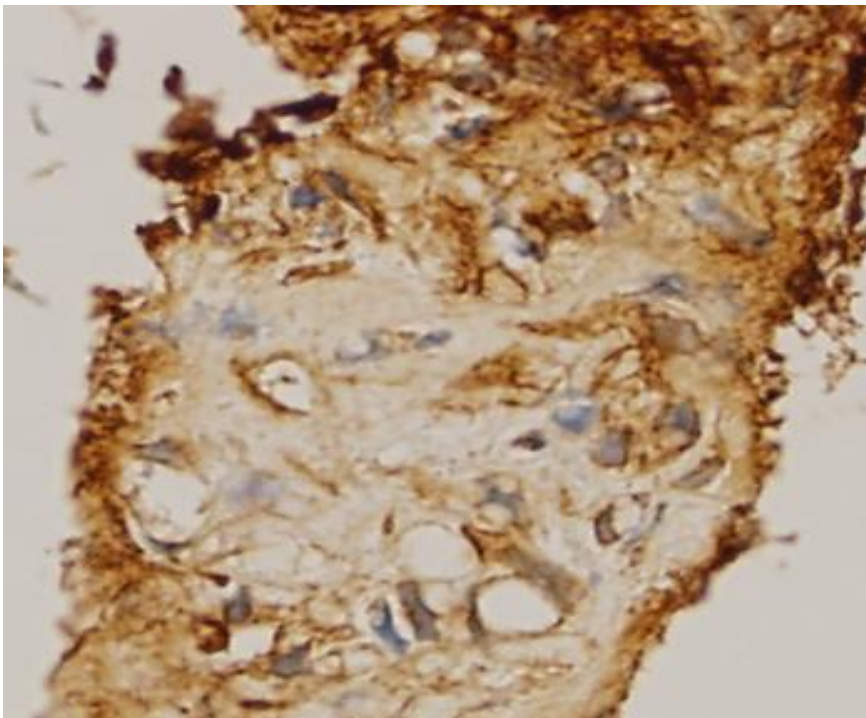


DDx

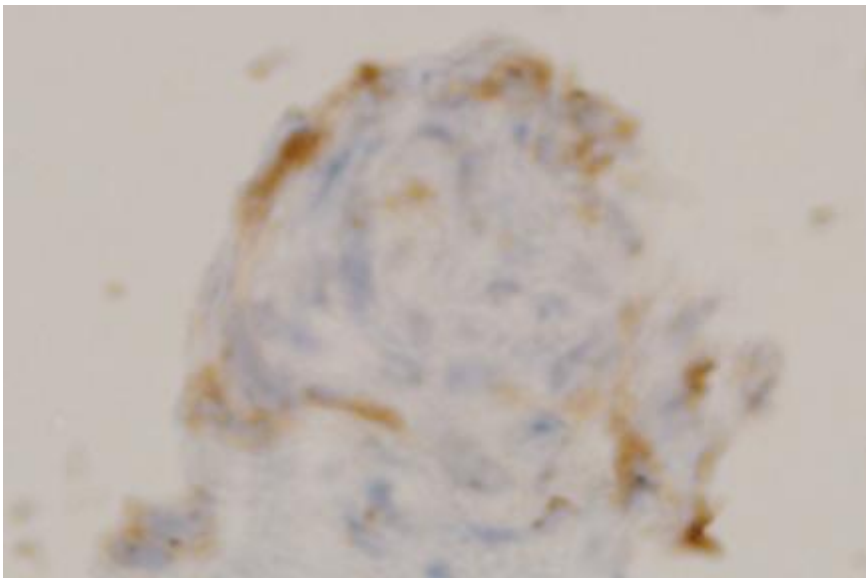
- Anaplastic carcinoma
- Squamous cell carcinoma
- Poorly differentiated carcinoma
- Sarcoma
- Follicular adenoma with atypia
“atypical adenoma”
- Metastasis
 - Carcinoma
 - Melanoma

**Paucicellular
Cell Block**



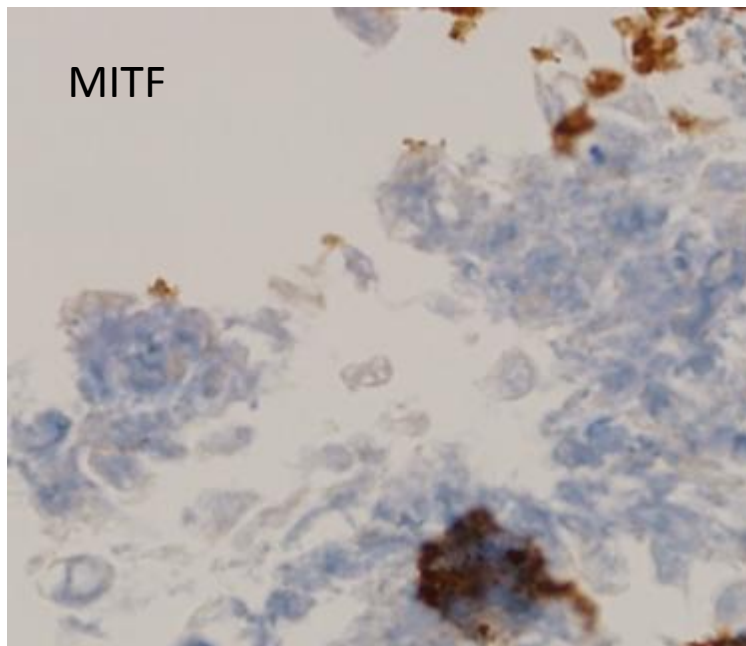


Weakly, focally positive
cytokeratin cocktail

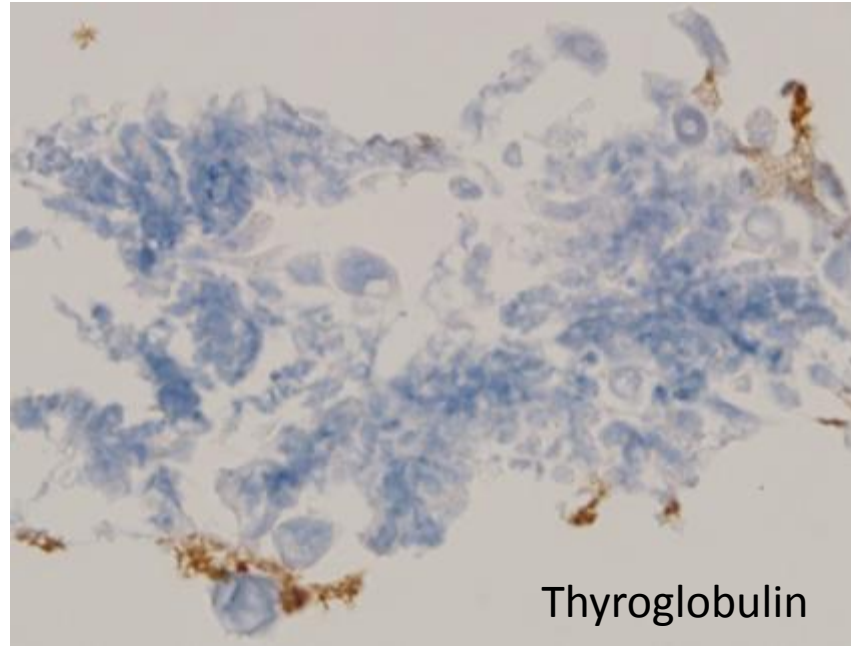


CK-5/6 equivocal, rare focal+

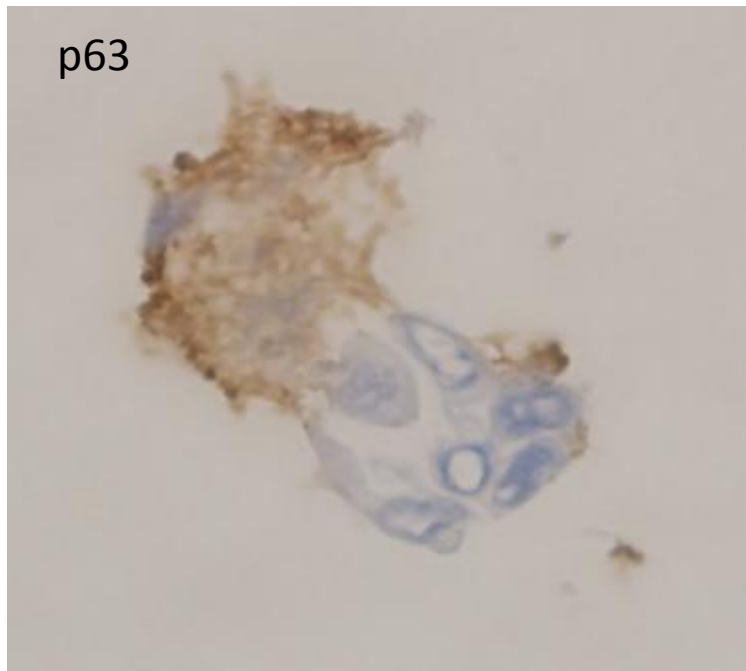
MITF



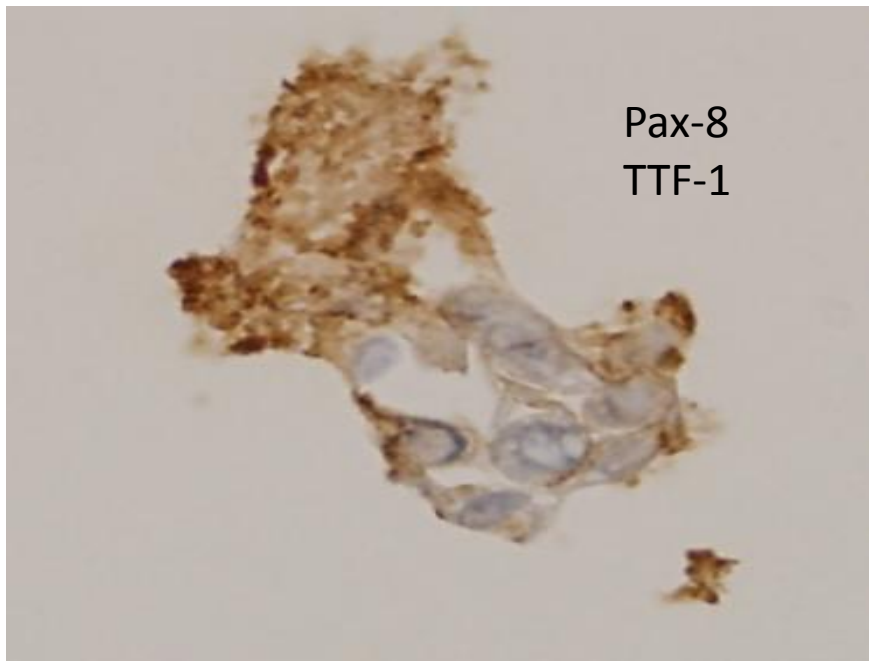
Thyroglobulin



p63



Pax-8
TTF-1

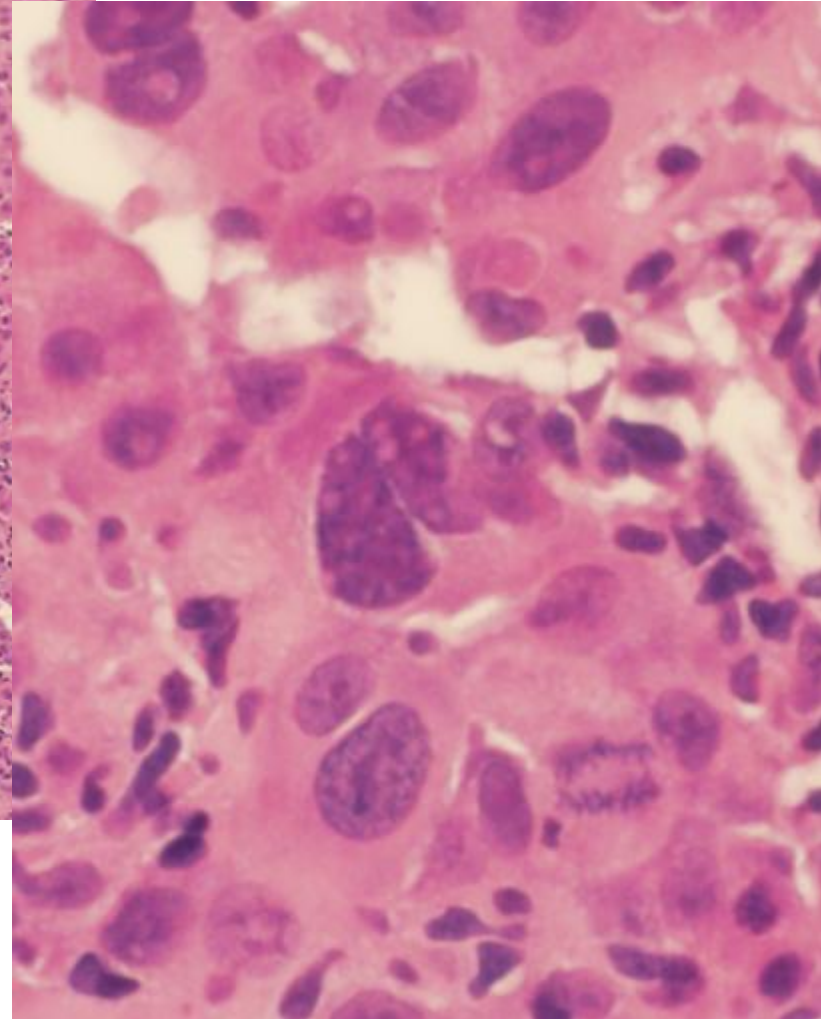
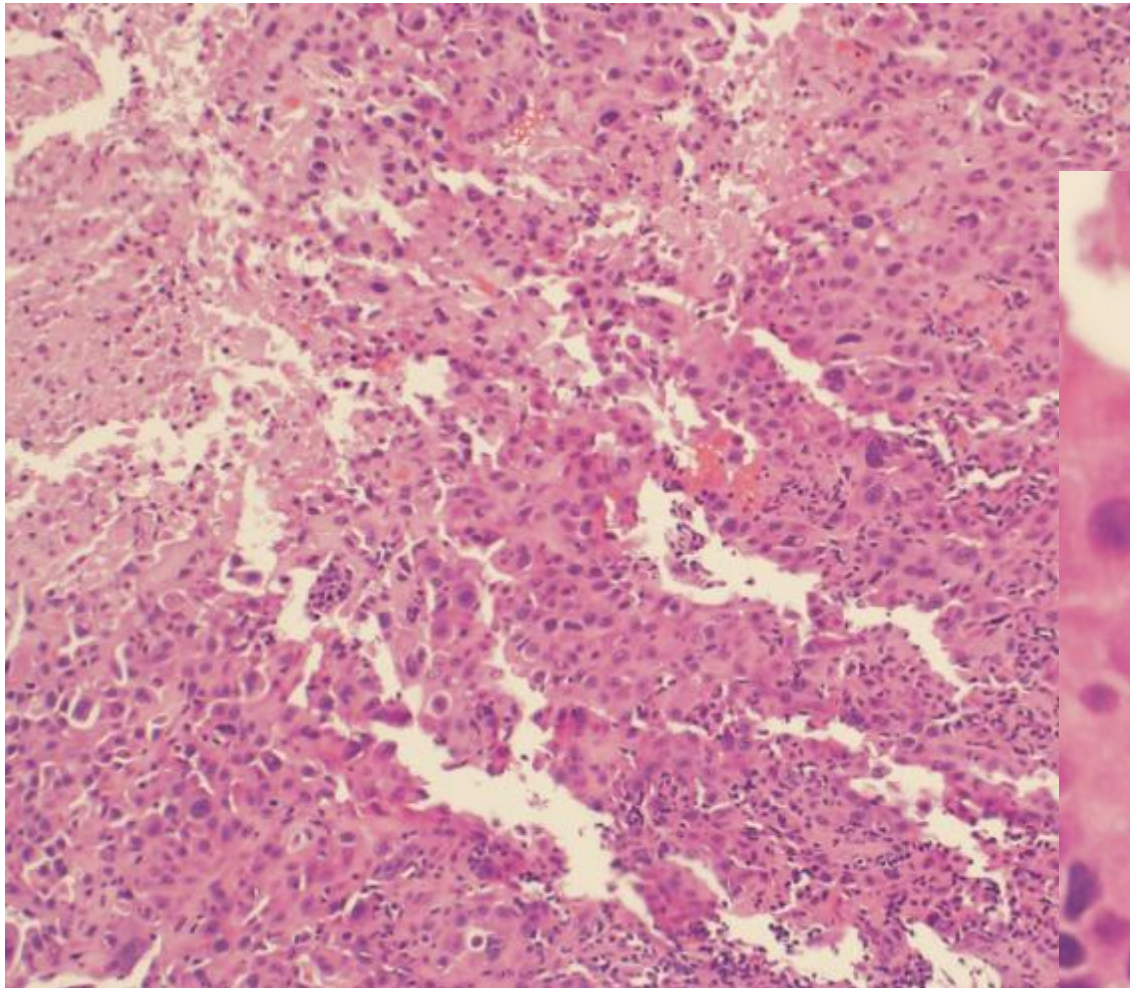


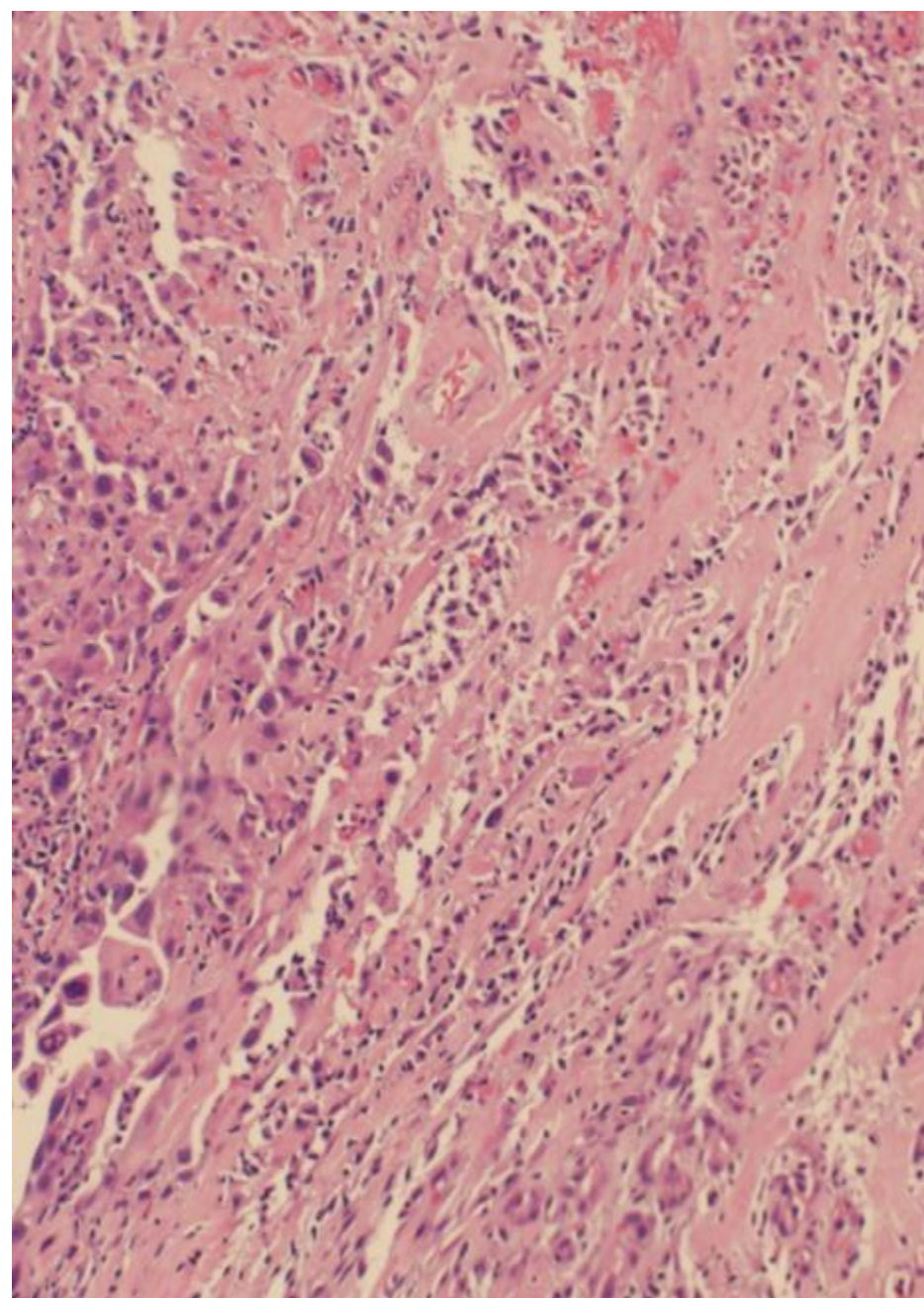
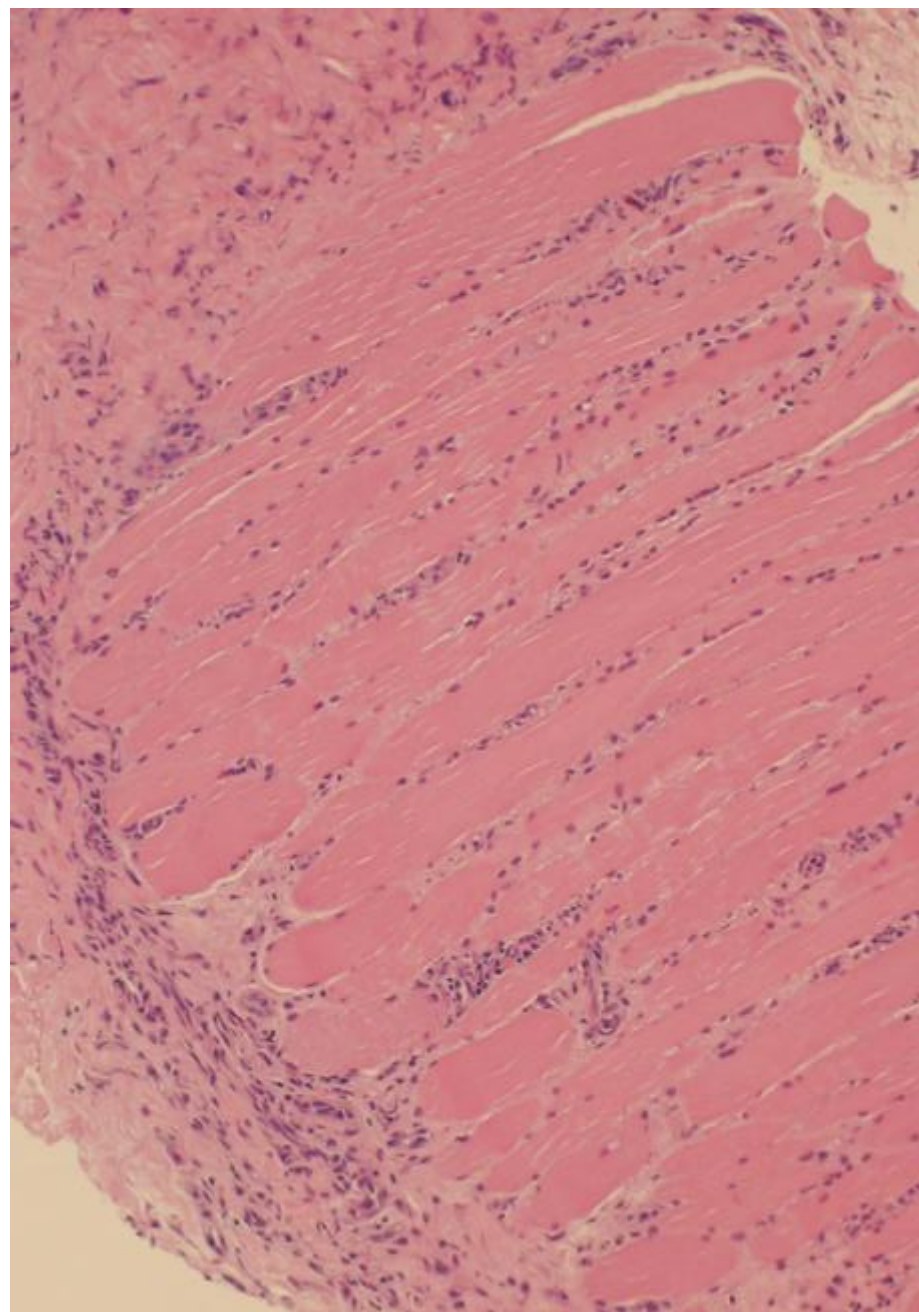
Dx

Thyroid, right, ultrasound guided fine needle aspiration:
Poorly differentiated carcinoma with focal squamoid features.

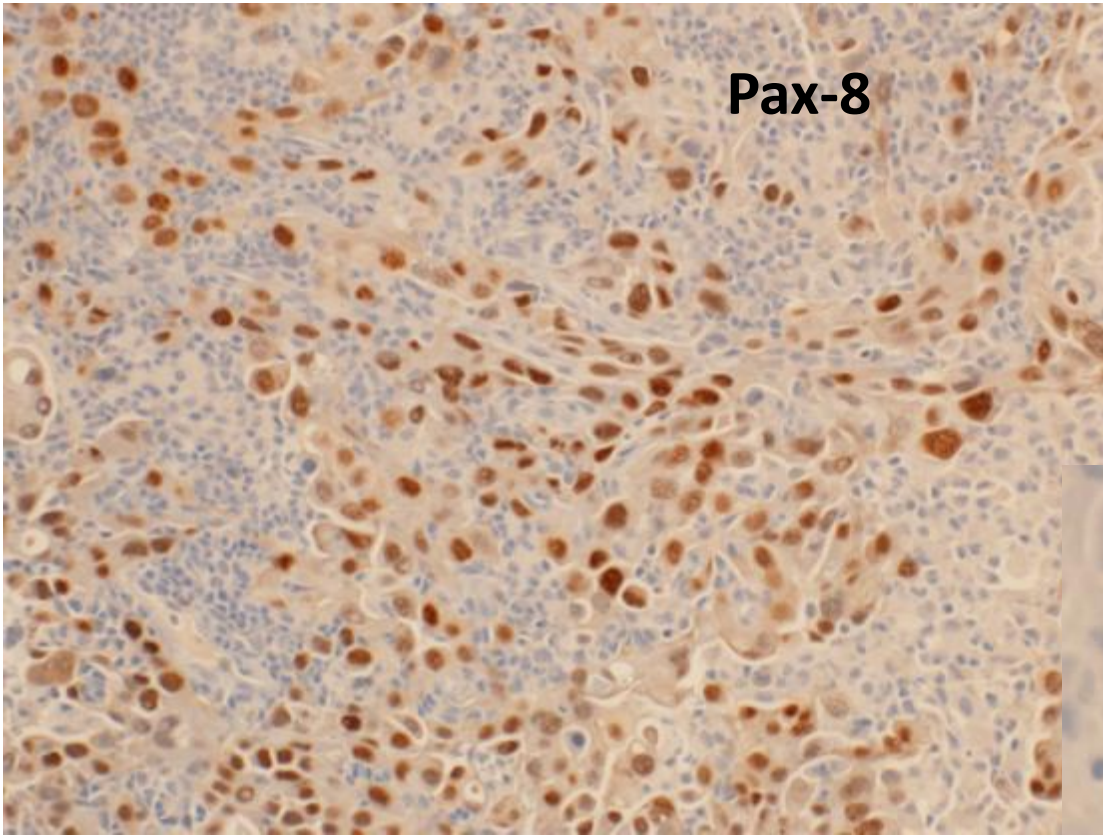
Comment: High grade malignant clusters of neoplastic cells with necrosis and focally dense cytoplasm seen. Immunohistochemical stains performed on the hypocellular cell block, despite obtaining two dedicated passes for the preparation. The tumor cells are positive for cytokeratin cocktail and focally for CK5/6. No reactivity seen with Pax-8, TTF-1, MITF, thyroglobulin, and p63. The immunoprofile is not entirely specific, while a poorly differentiated or undifferentiated thyroid primary is the top differential, the possibility of metastatic disease cannot be entirely excluded.

Surgical Path – core needle Bx

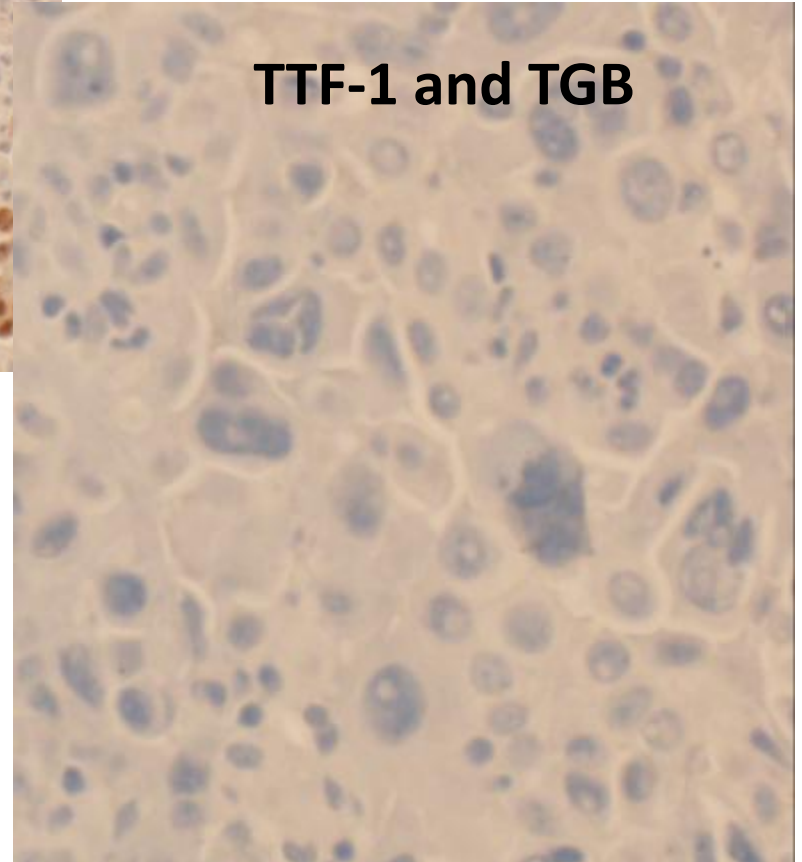




Pax-8



TTF-1 and TGB



Anaplastic Carcinoma of thyroid

- Less than 5% of malignant thyroid tumors
- Rare before age 50
- Female predominance (2-4:1)
- History of longstanding goiter common
- Poorest prognosis of thyroid tumors
 - Six months to one year

Cytologic features

- Markedly to moderately cellular (*but may not be due to fibrosis*)
 - Variably sized groups and single cells
 - Epithelioid and spindled
 - Plasmacytoid and rhabdoid features
 - Nuclear enlargement, irregularity, pleomorphism
 - Parachromatin clearing
 - Prominent nucleoli
 - Intranuclear inclusions
 - Multinucleation
 - Mitotic figures, giant cells
 - *Focus of a co-existing well differentiated or poorly differentiated carcinoma may be present*
- IHC**
- **Positive**
 - Pancytokeratin
 - Vimentin
 - Pax-8 (most)
 - **Negative**
 - Thyroglobulin
 - TTF