Interesting Case Conference

8/19/2013

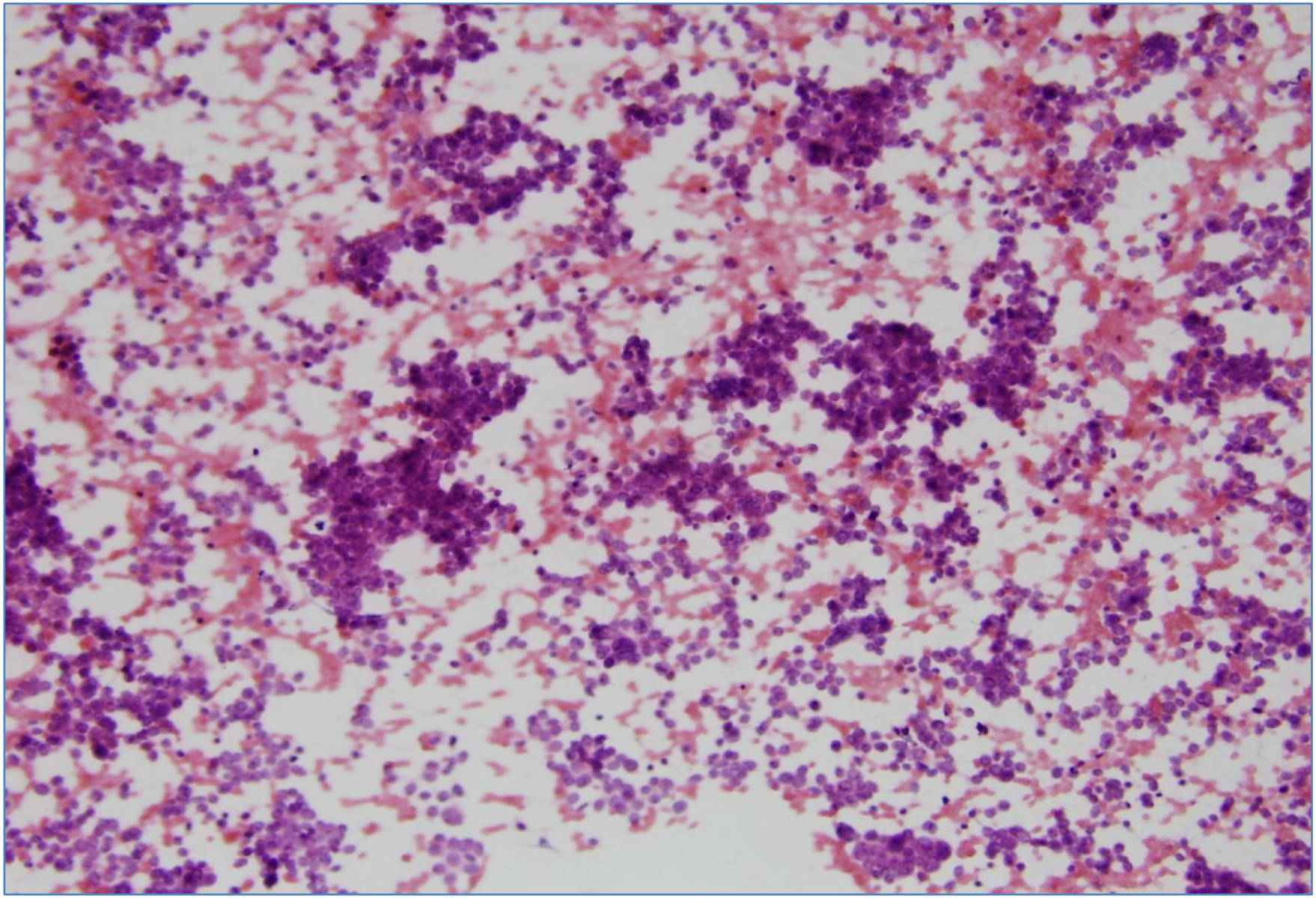
Hx

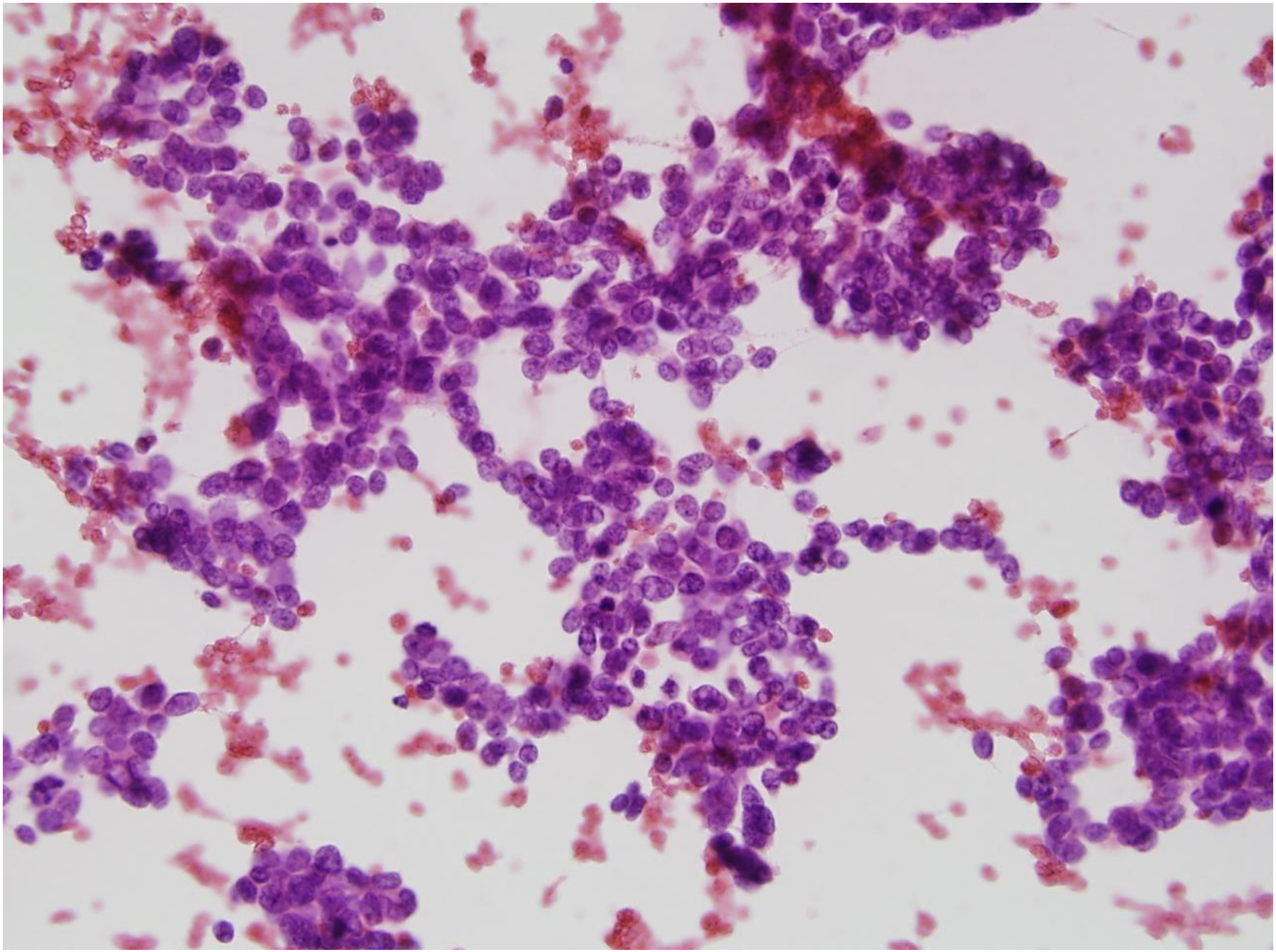
- 75 yo Male presented primary care physician with an enlarged left cervical lymph node
  - nonsmoker
- ENT
  - Normal appearing laryngoscope (nasal cavity, nasopharynx, hypopharynx, and vocal cord)
- US guided FNA at outside hospital (OSH)
- CT neck: lymphadenopathy in left cervical and supraclavicular areas

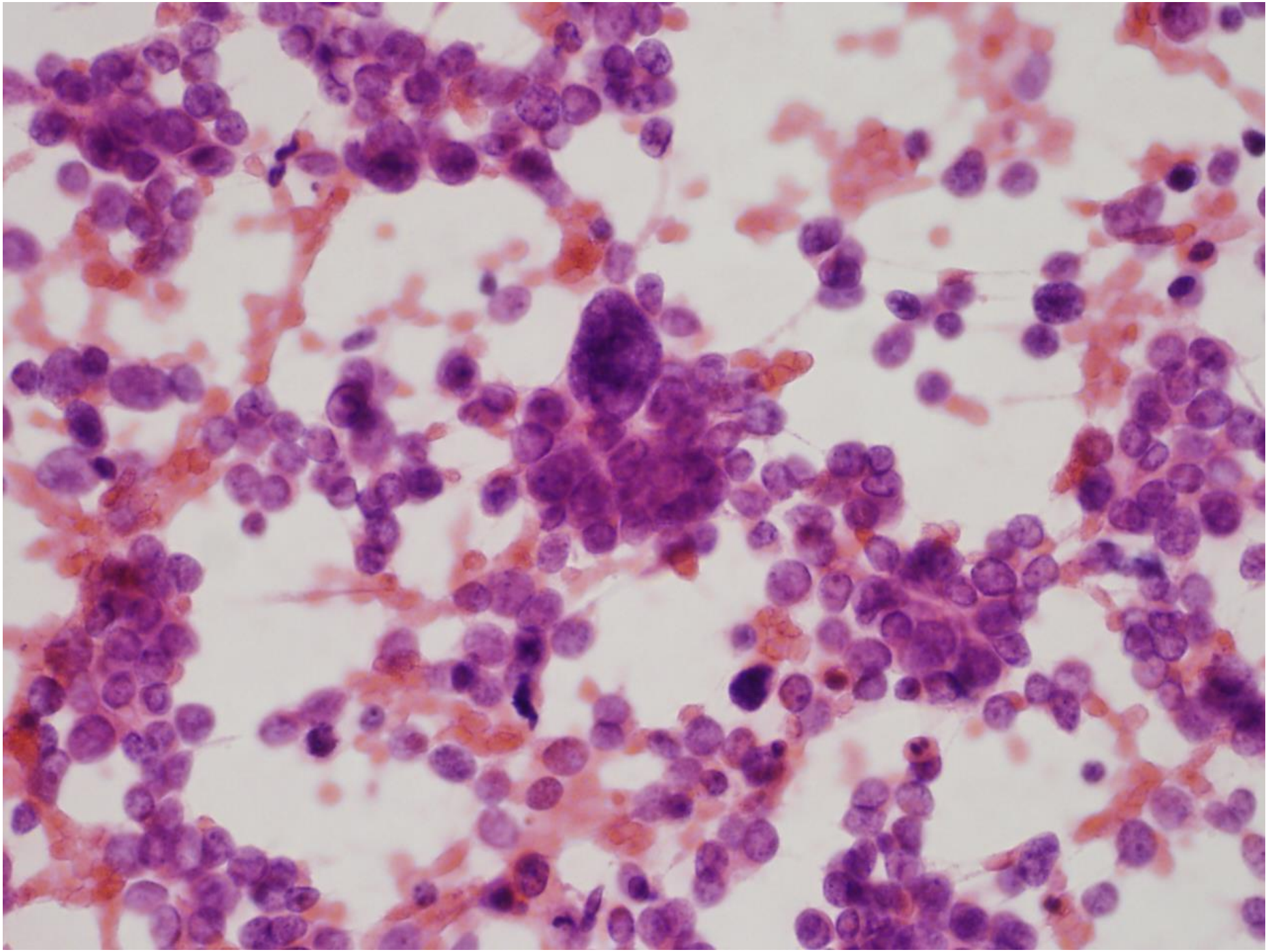
U of M initial workup

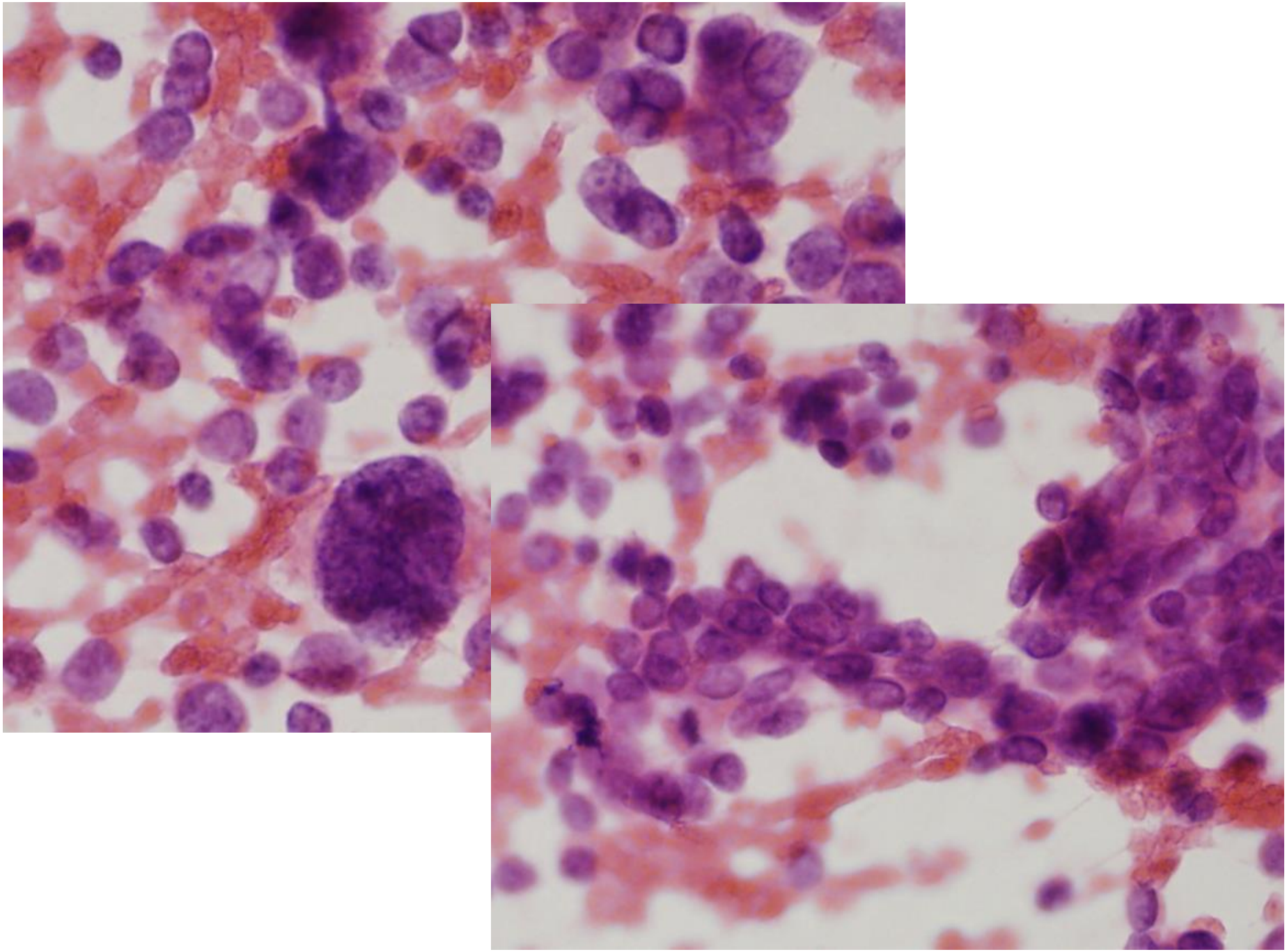
- CT scan chest:
  - 6 mm indeterminate nodule in right lung base
  - Otherwise unremarkable
- CT scan head: no metastatic lesions
- Review of path requested
- PET scan ordered

US guided FNA: 1.5 cm left neck mass

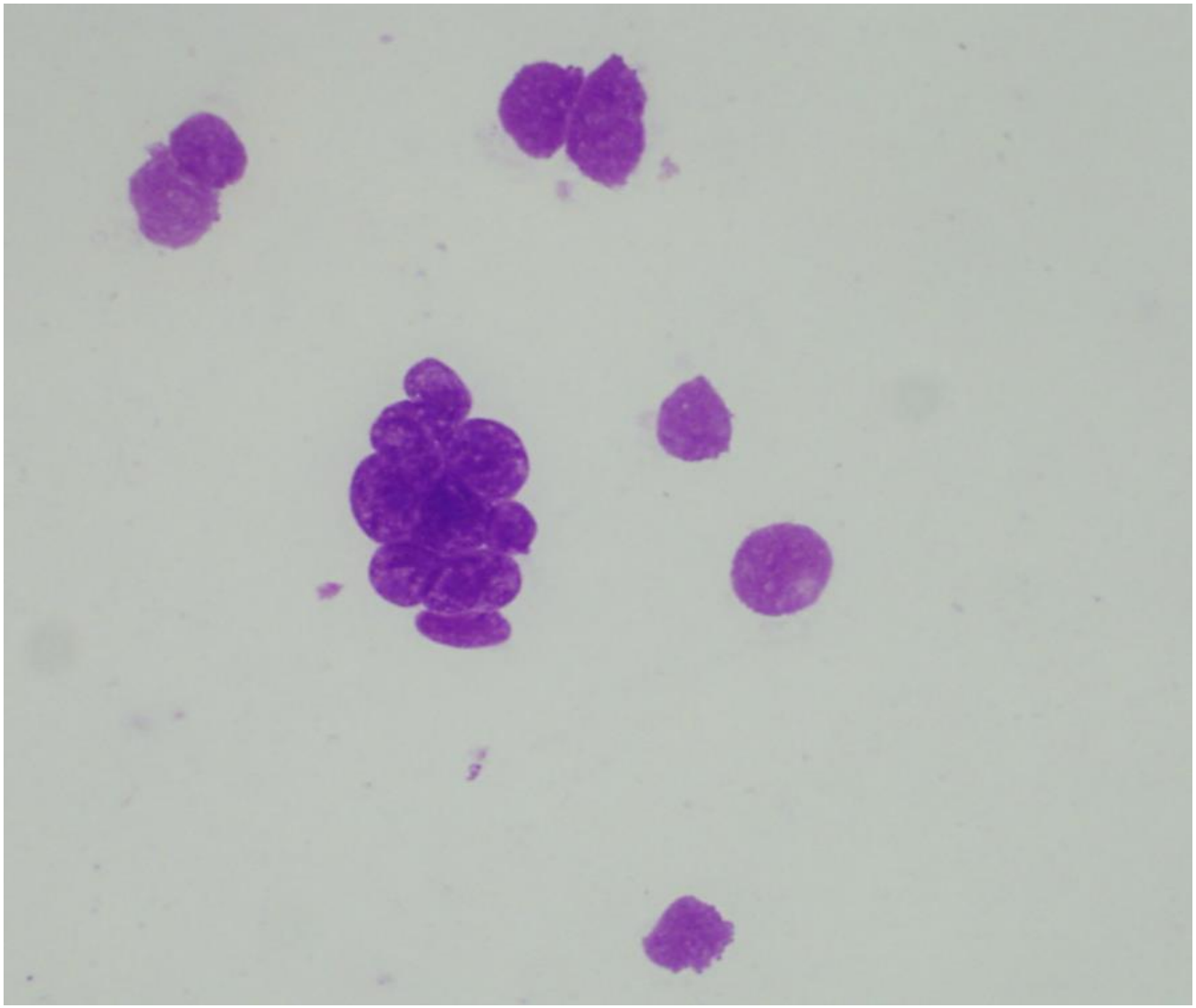




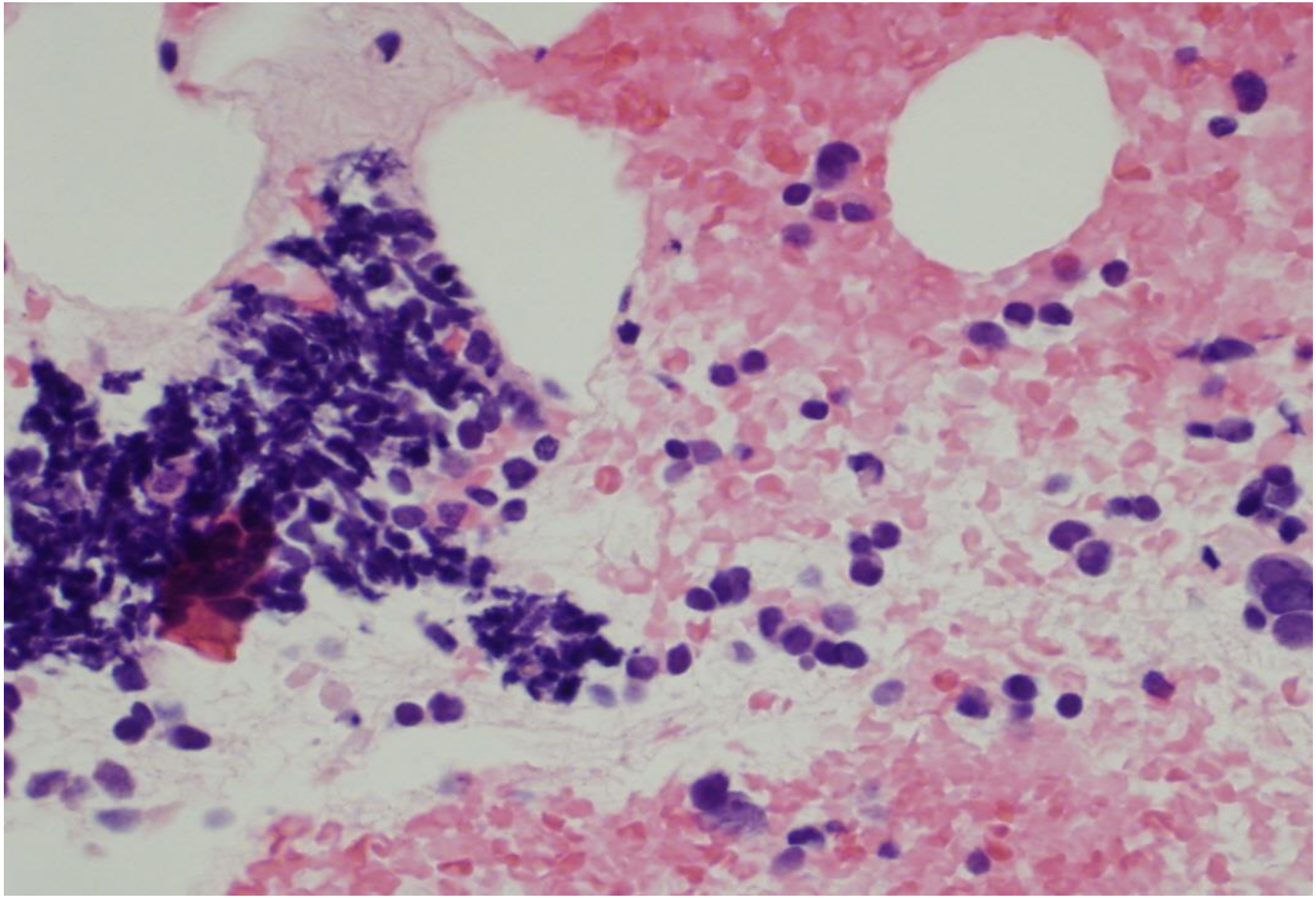




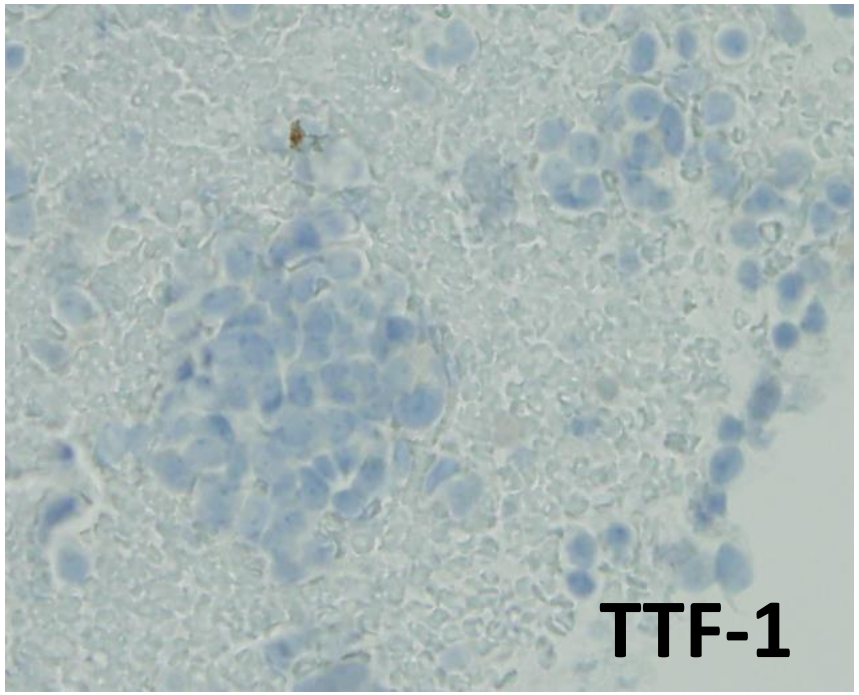
Diff-Quik

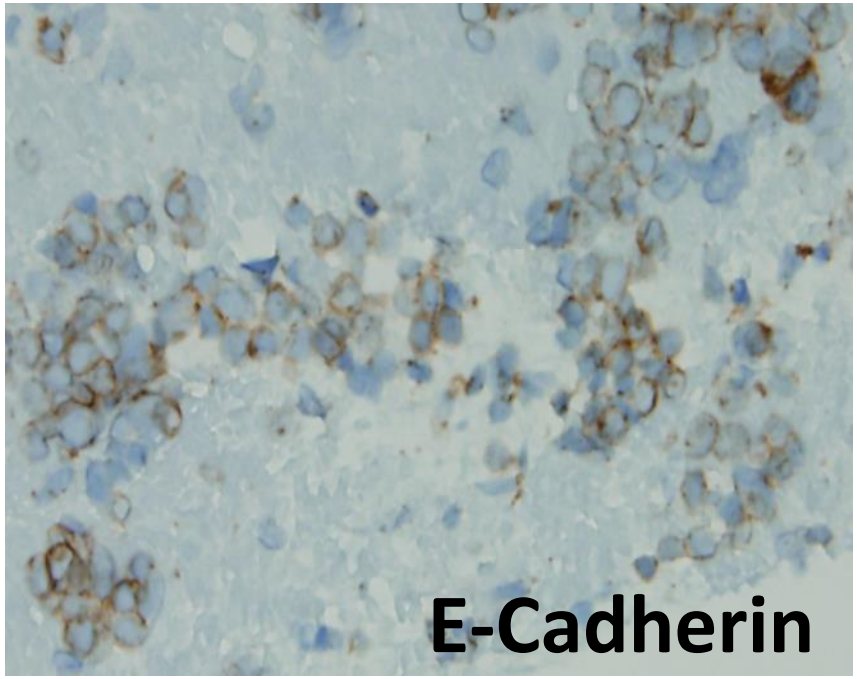


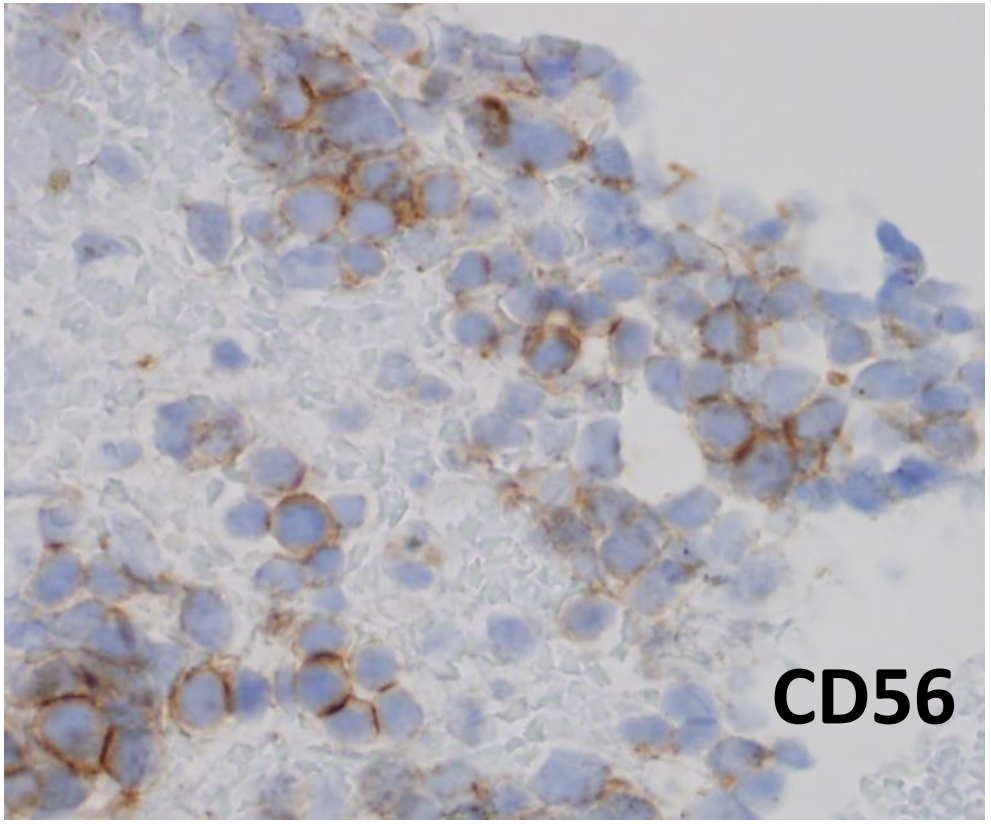
Cell Block



OSH IPOX





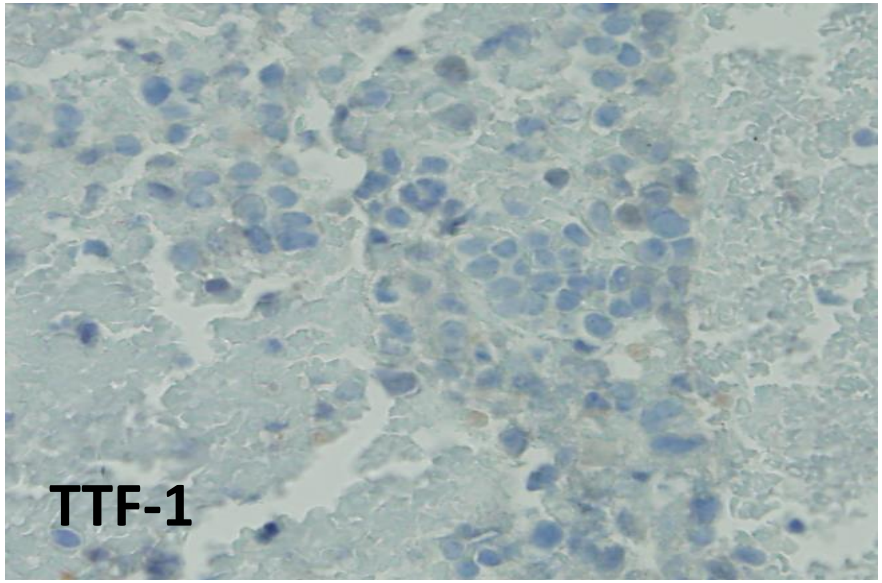


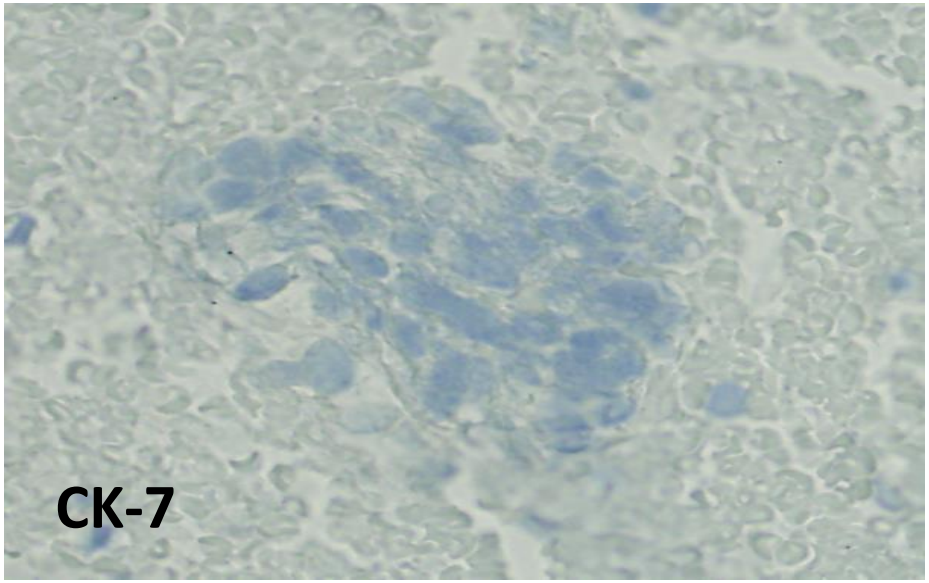
OSH Dx

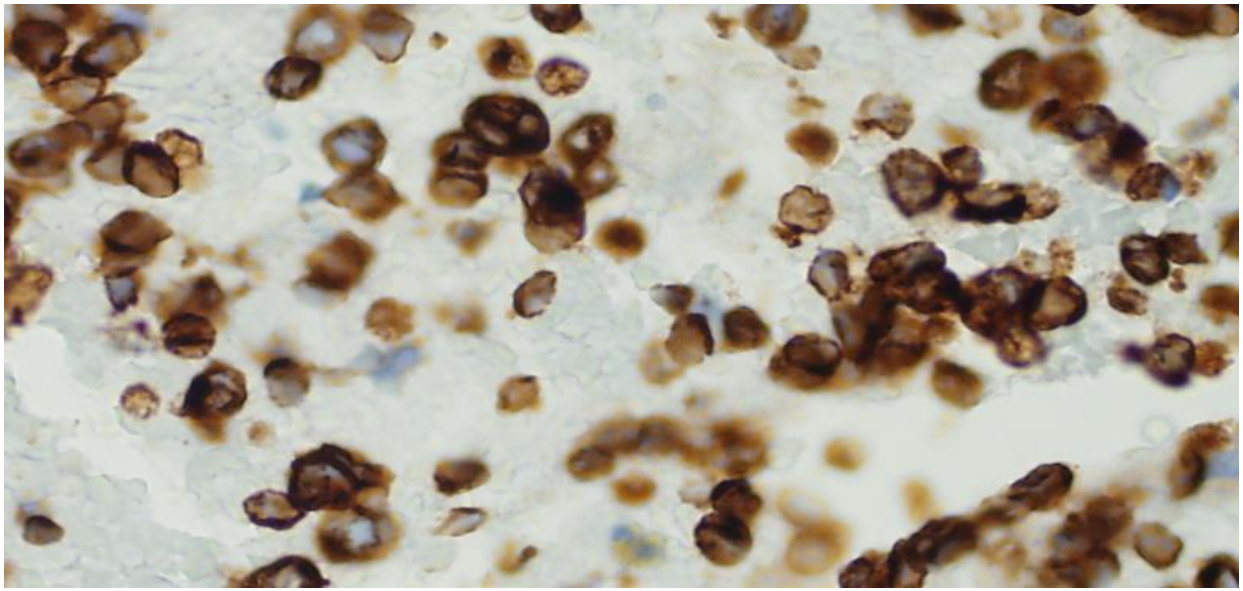
- Flow cytometry
  - No evidence of lymphoid neoplasm
  - CD56+/CD45- population of non-hematologic cells.

- **Dx: Metastatic carcinoma with neuroendocrine features, favor pulmonary large cell neuroendocrine carcinoma**

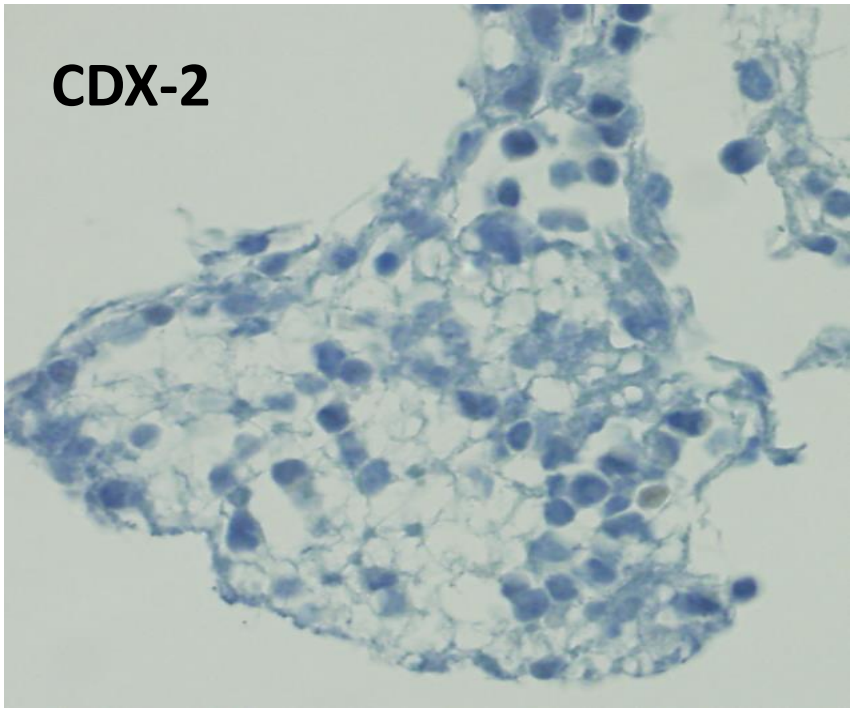
UM work-up

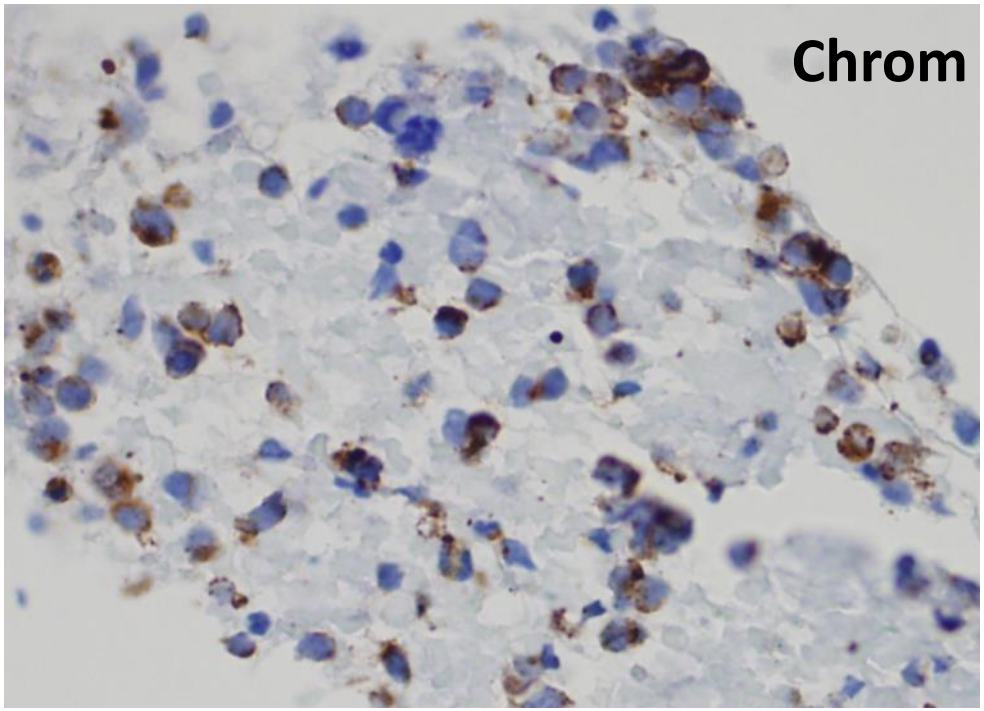


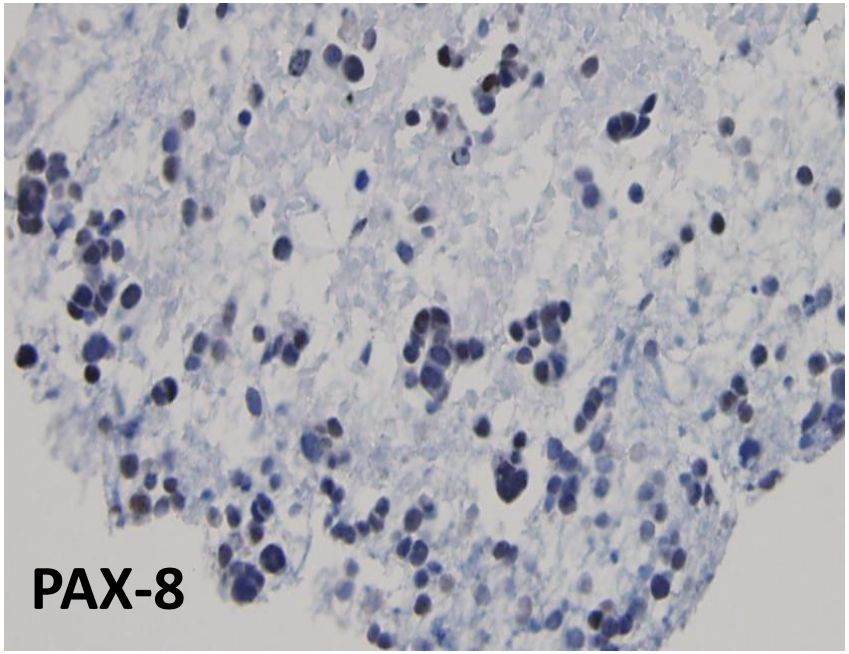


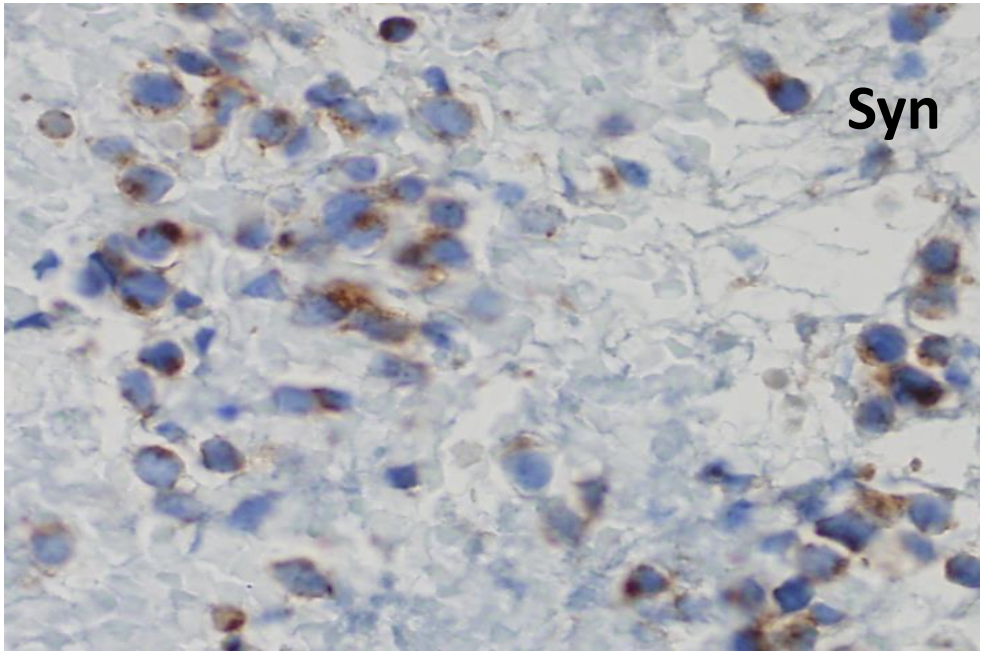


CK-20

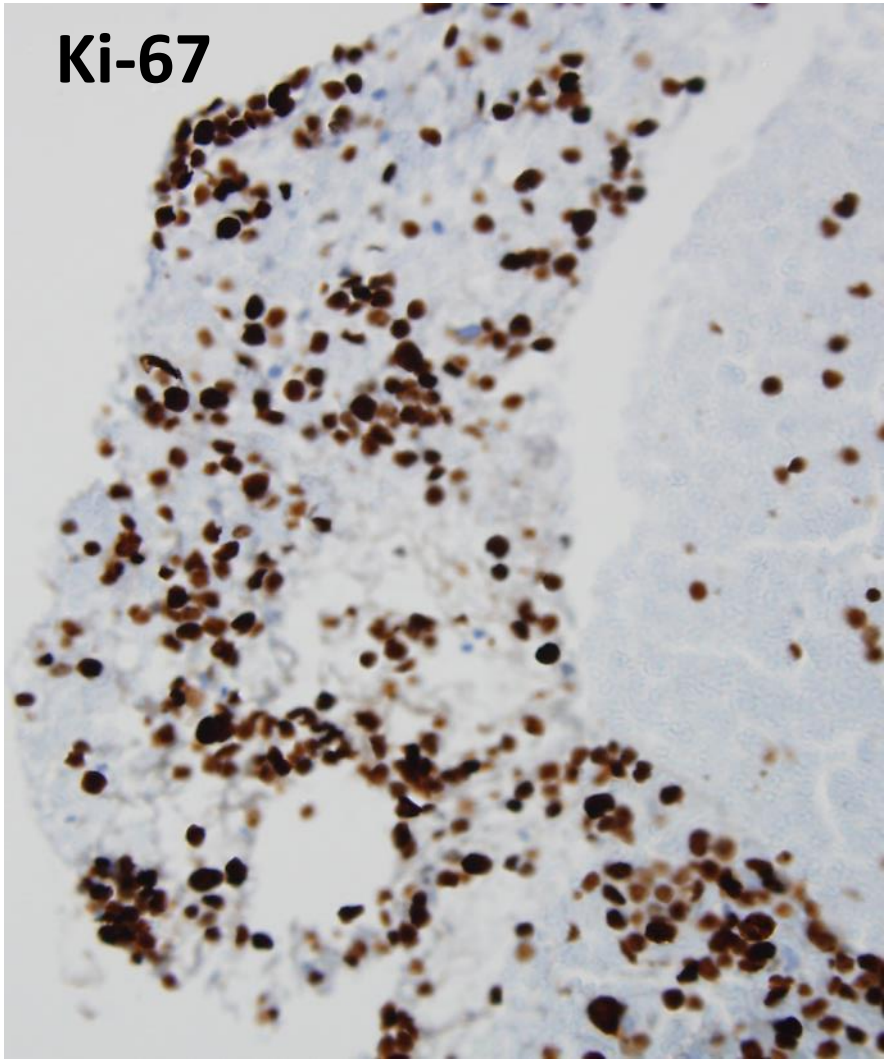

CDX-2


Chrom


PAX-8


Syn

Diagnosis



- High grade neuroendocrine carcinoma.
- Pancreatic primary?
  - Weak PAX8 positivity (a significant proportion of pancreatic endocrine neoplasms were reported to be PAX8+).
- Merkel Cell?
  - Diffuse strong CK-20
  - Lack of perinuclear dot-like pattern

	Typical Carcinoid	Atypical Carcinoid	Large Cell Neuroendocrine Carcinoma	Small Cell Carcinoma
				
I				
Cell size	Small to medium	Medium	Large	Small to medium
Predominant pattern	Tight clusters/rosettes	Loose clusters/rosettes	Loose clusters/rosettes	Dispersed cells
Cytoplasm	Moderately abundant	Scant to moderate, lacy	Scant or moderate, lacy	Scant
Plexiform vascularity	Common	Common	Not known	Rare
Nuclear molding	Rare	Slight to moderate	Slight to moderate	Prominent
Chromatin	Coarsely granular	Coarsely granular	Coarsely granular	Finely granular
Nucleoli	Small	Occasionally prominent	Prominent	Inconspicuous
Mitoses (per 10 high power fields)	Rare (<2)	Uncommon (2–10)	Abundant (≥11; median 70)	Abundant (≥11; median 80)
Nuclear pleomorphism	Mild	Moderate	Marked	Moderate
Necrosis	Absent	Moderate	Marked	Marked
Nuclear crush	Absent	Mild	Moderate	Marked

Cibas, E. Ducatman, B. Cytology Diagnostic Principles and Clinical Correlates. 3rd Edition. 2009. p93

Follow-up

- PET Scan
  - Pancreatic head shows FDG avidity along with left supraclavicular and left cervical lymph nodes
  - Comment: usual pattern of nodal metastasis for pancreatic primary