

Double trouble

FNA of the left SCF node

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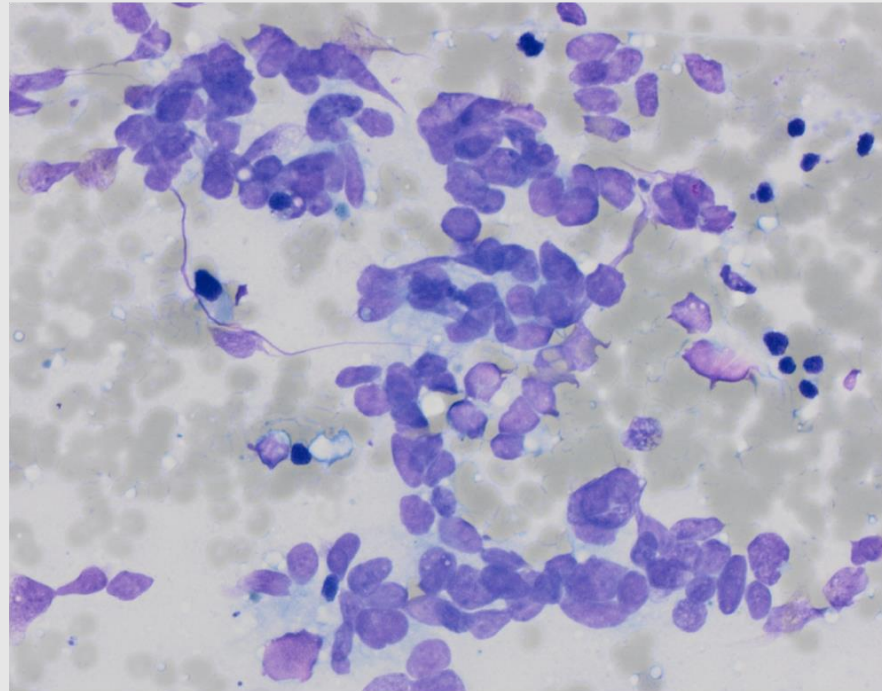
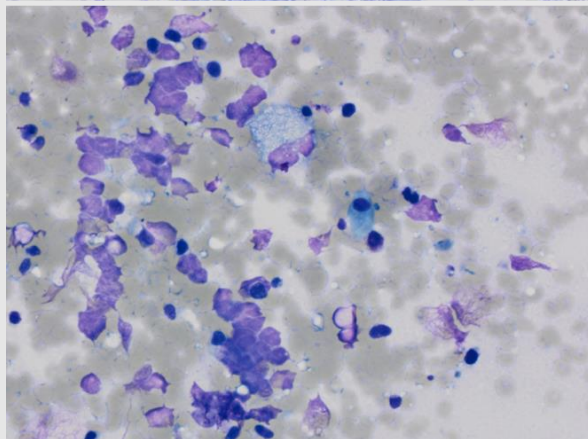
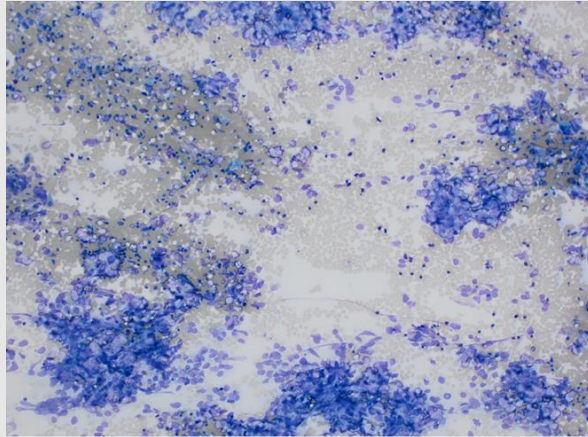
Diagnostic Cytology

Royal Cornwall Hospital

Clinical information

- 63-Year-old male
- Smoker
- Works in industry with exposure to dusty environment
- 5 weeks of worsening shortness of breath and wheezy on talking
- X2 courses of antibiotics and steroids with no improvement
- Chest X-ray shows right upper lobe consolidation and Left lower lobe shadow.
- CT shows – Probable bronchogenic carcinoma at right hilum with extensive mediastinal lymphadenopathy and bilateral adrenal deposits and neck nodes

Ultrasound guided biopsy of left supraclavicular fossa lymph node performed with ROSE

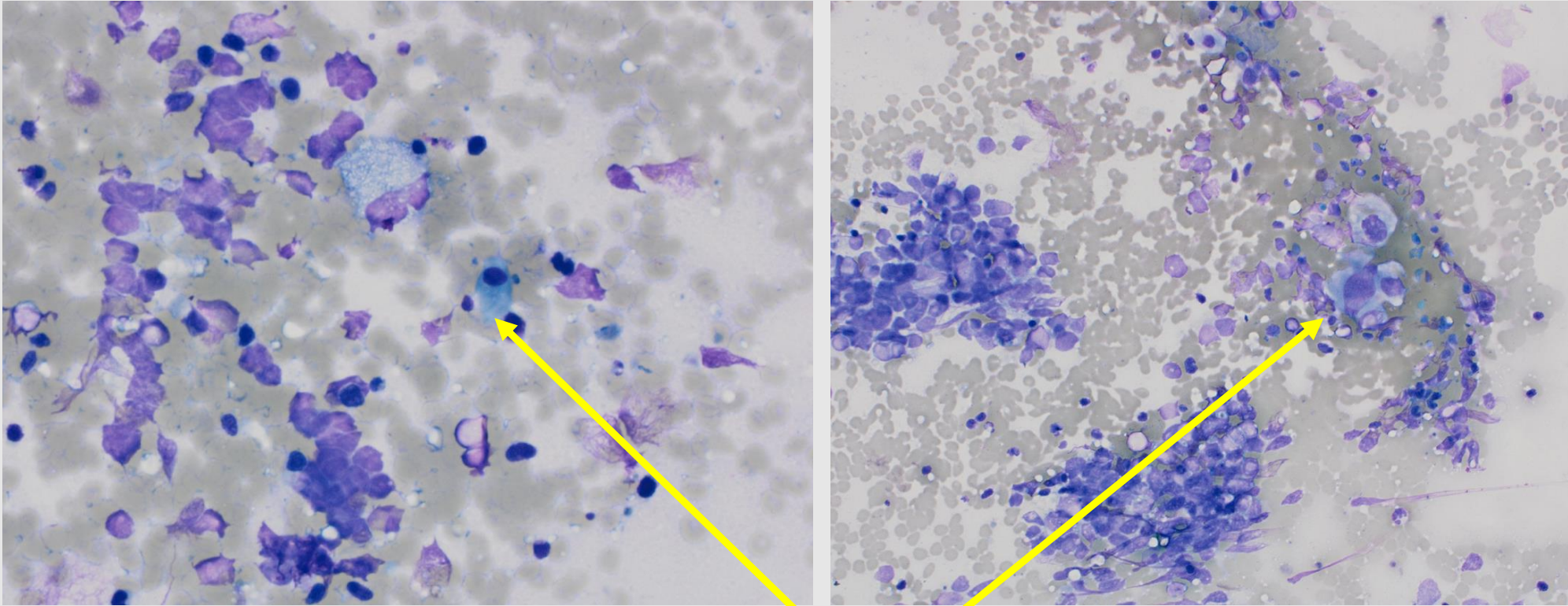


- Cellular
- Clusters & single cells
- Small fragile cells
- High N:C / minimal cytoplasm
- Nuclear moulding
- Discreet / absent nucleoli

Morphological features in keeping with Small cell carcinoma

All the remaining sample from ROSE was made into a cell block

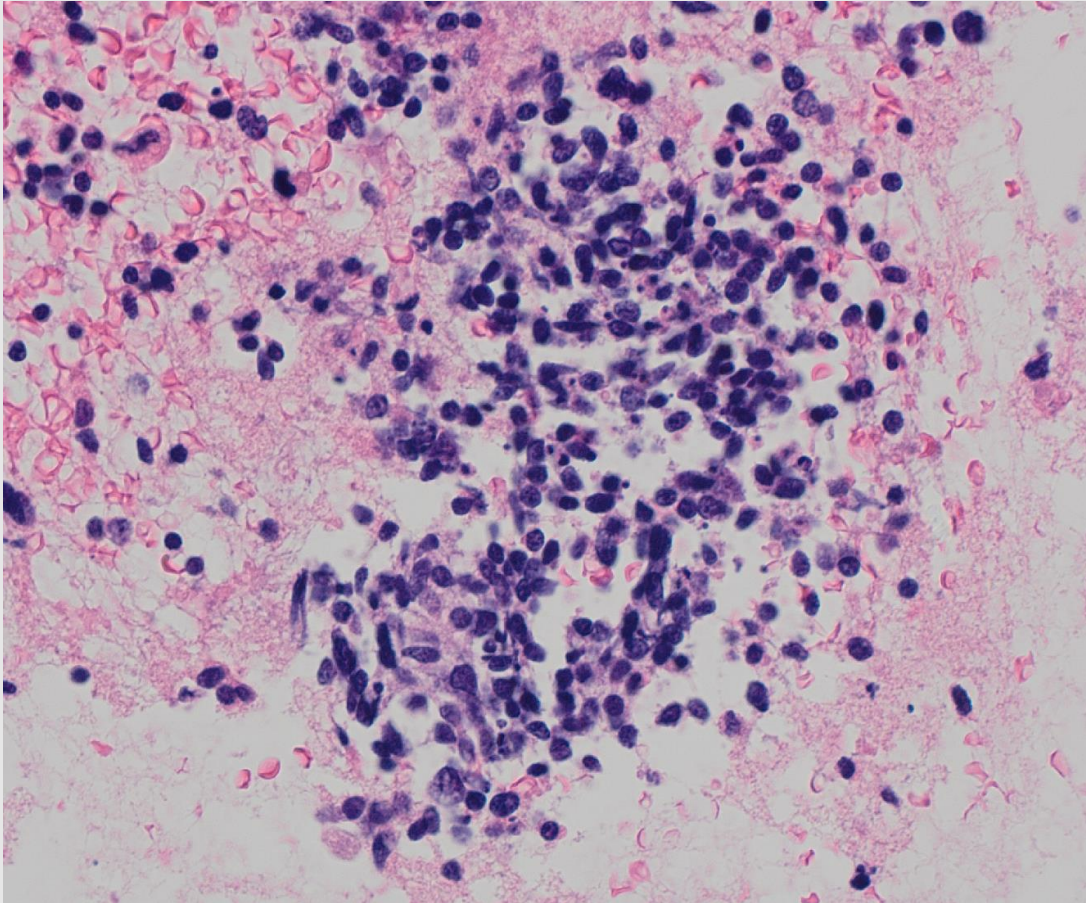
On review in the lab



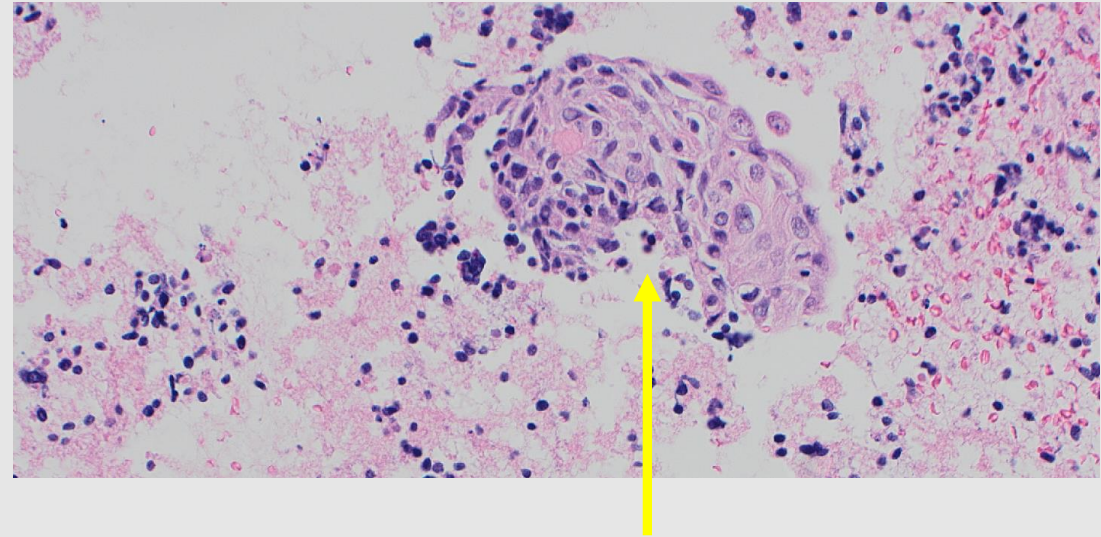
A very sparse second population of abnormal cells

- Keratinisation
- Abundant cytoplasm
- Irregular nuclear membranes
- “Squamoid appearance”

Cell block demonstrates two distinct populations of abnormal cells



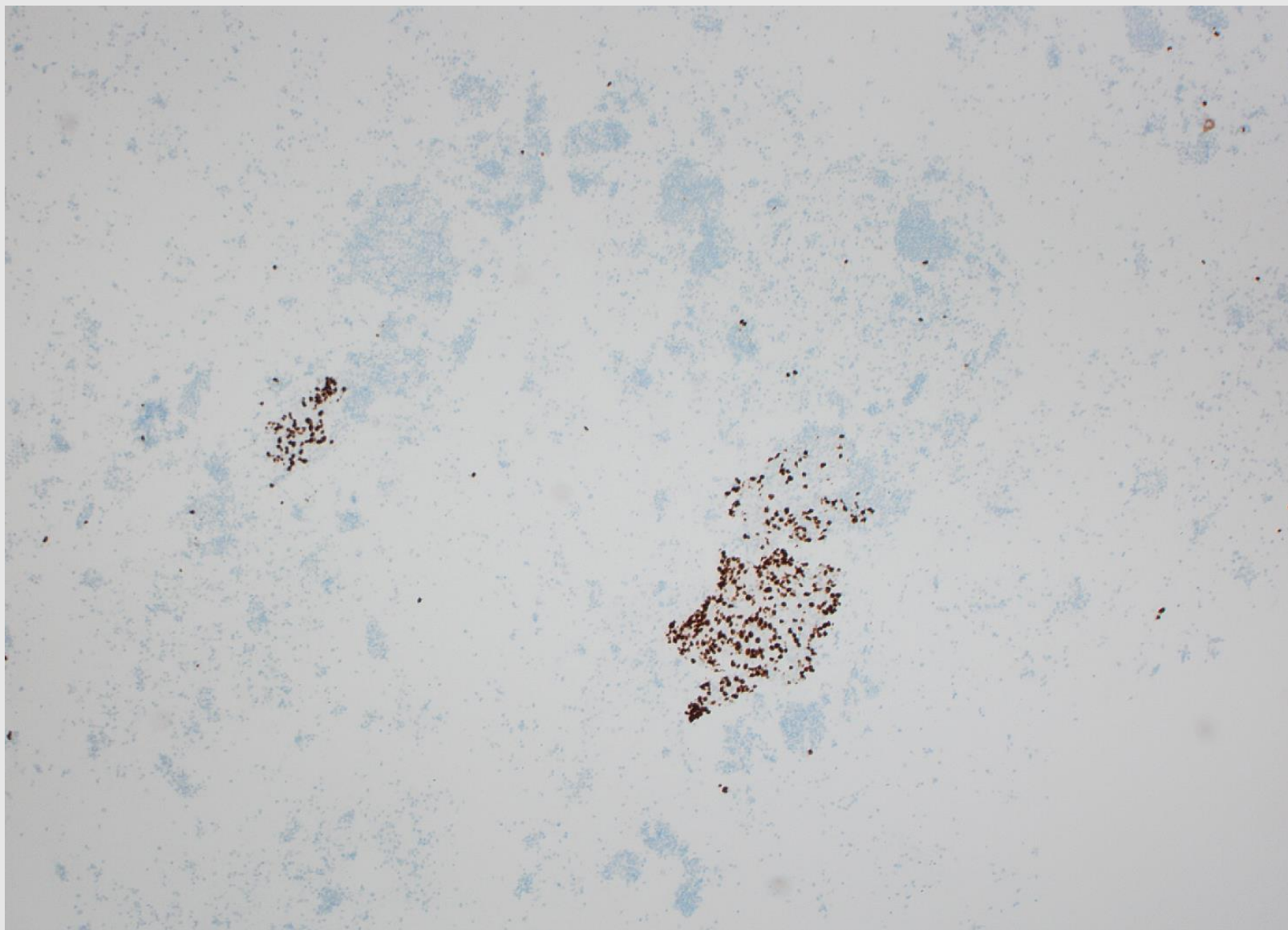
- Small cell carcinoma
- Stippled chromatin
 - High N:C
 - Discreet nucleoli



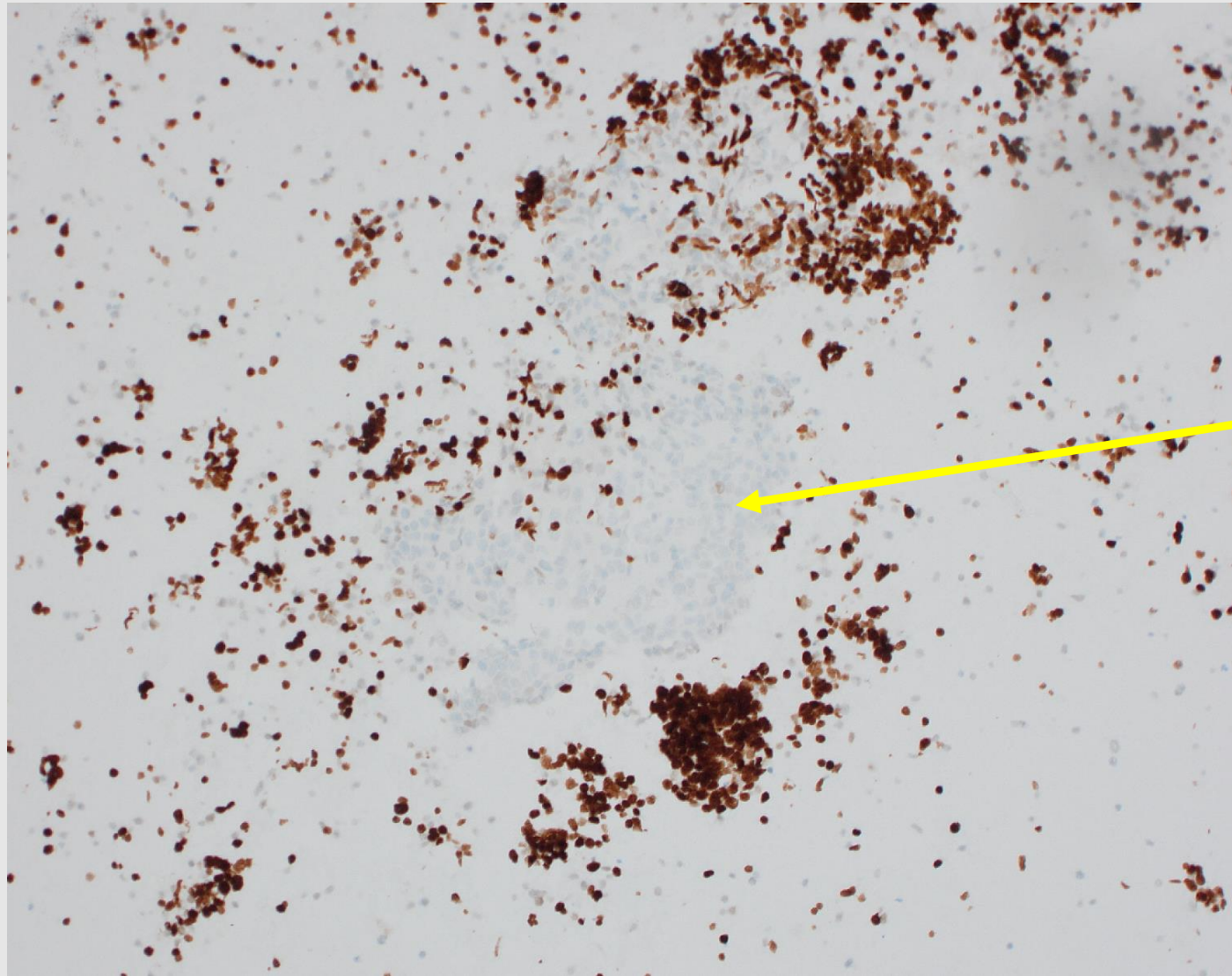
- Squamous cell carcinoma
- Abundant cytoplasm
 - Intercellular bridges
 - Irregular nuclear membranes

Immunocytochemistry

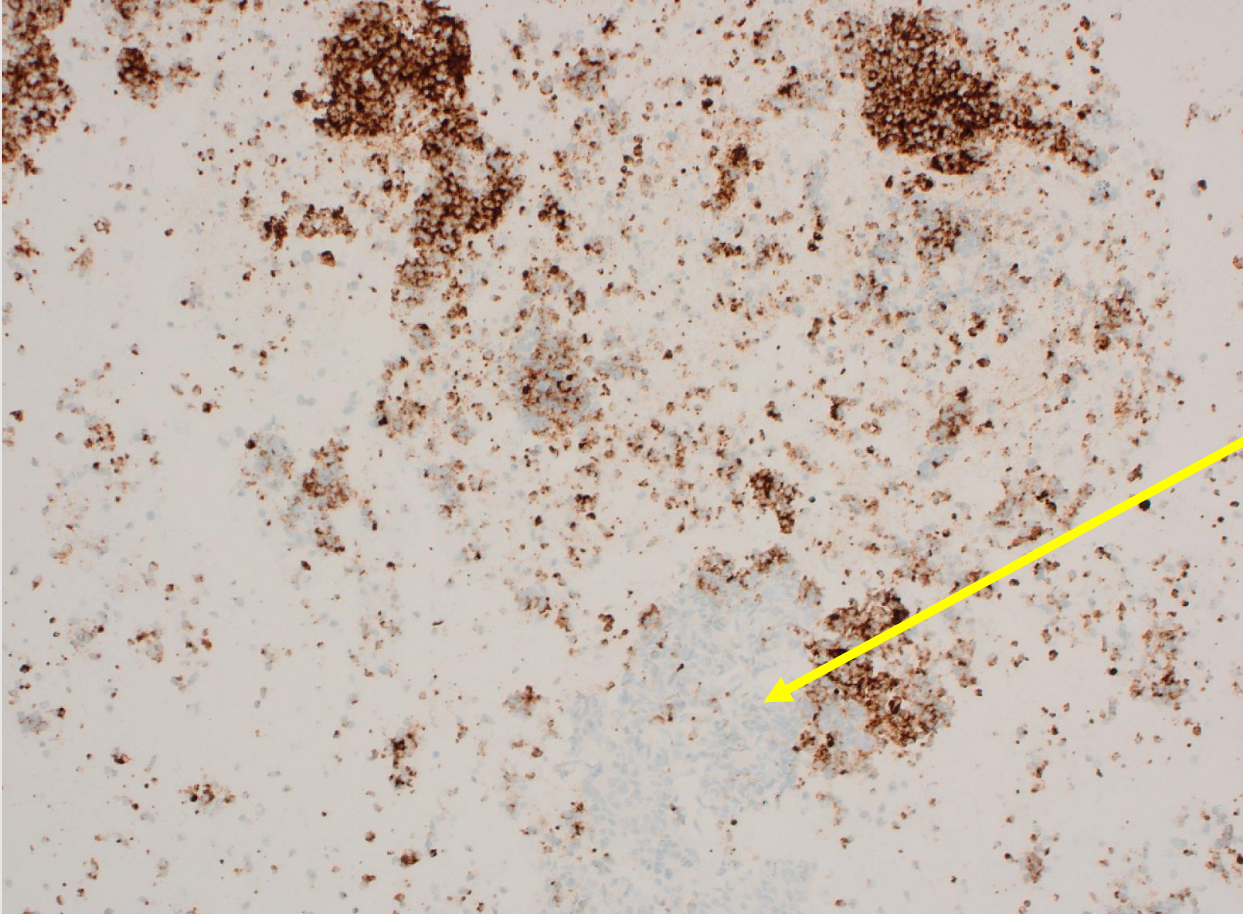
- Small cell carcinoma population of cells : Positive for MNF116, TTF1 and Synaptophysin. Negative expression for P40, Chromogranin and CD45
- Squamous cell carcinoma population of cells : Positive for MNF116 and P40 and negative expression for TTF1, Synaptophysin, Chromogranin and CD45.



P40 Immunocytochemistry
Demonstrates positive staining in
the squamous cell carcinoma and
negative expression in the
neuroendocrine cells



TTF1 was positive in the neuroendocrine cells and negative in the squamous cell carcinoma cells



Synaptophysin was positive in the neuroendocrine cells and negative in the squamous cell carcinoma cells

- Discussed with expert Cellular pathologist
- Discussed at MDT
- Excluded cutaneous lesion sampled on route to sampling

- Concluded : Neck Lymph Node FNA, Left SCF: Metastatic combined small cell lung carcinoma.

- PDL1 was requested by MDT for the squamous component (PDL1 was 5%)
- Patient treated combination chemo-immunotherapy (Carboplatin, etoposide and Atezolizumab) with the aim of disease control.
- Patient currently responding well to treatment.

Combined small-cell lung carcinoma (C-SCLC)

- Combined small-cell lung carcinoma (C-SCLC) is defined by the World Health Organization (WHO) as small-cell carcinoma (SCLC) combined with additional components that consist of any of the histological types of non-small-cell lung carcinoma (NSCLC). In this case it was squamous cell carcinoma.
- Rare 2-14% of small cell lung cancer
- Study data is scarce and limited.
- More often the second component is seen in the mass. In this case it was the metastases.

Combined small-cell lung carcinoma (C-SCLC)

- Histogenesis remains controversial
- Prognosis is poor and determined by the small cell carcinoma component
- Surgery is considered in early-stage disease only
- The median age of C-SCLC patients is 59–64 years
- Majority of patients are male
- Associated with heavy smoking history
- Develops predominantly in central sites

References:

1. meer AL Diffalha, Saleh Hasan, Maryam Tahmasbi, Farah Khalil,
Rare case of combined small cell lung cancer with adenocarcinoma and squamous cell carcinoma,
Human Pathology: Case Reports, Volume 7, 2017, Pages 31-34,

[Rare case of combined small cell lung cancer with adenocarcinoma and squamous cell carcinoma - ScienceDirect](#)

2. Qin J, Lu H. Combined small-cell lung carcinoma. Onco Targets Ther. 2018 Jun 19;11:3505-3511.
doi: 10.2147/OTT.S159057. PMID: 29950855; PMCID: PMC6016273.

[Combined small-cell lung carcinoma - PMC](#)

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