

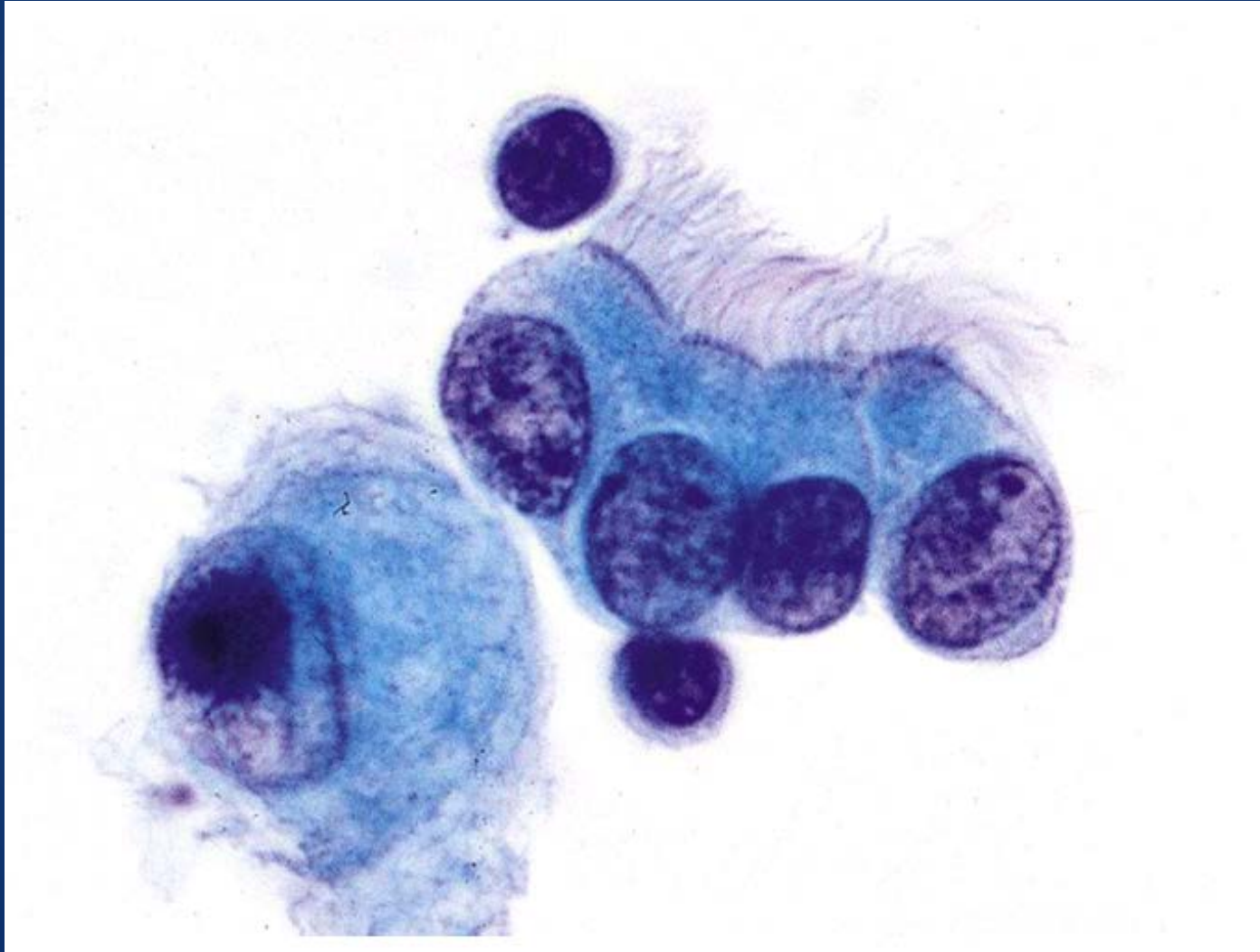
CYTOLOGY OF LUNG NEOPLASM

Dr. GOUTHAMI

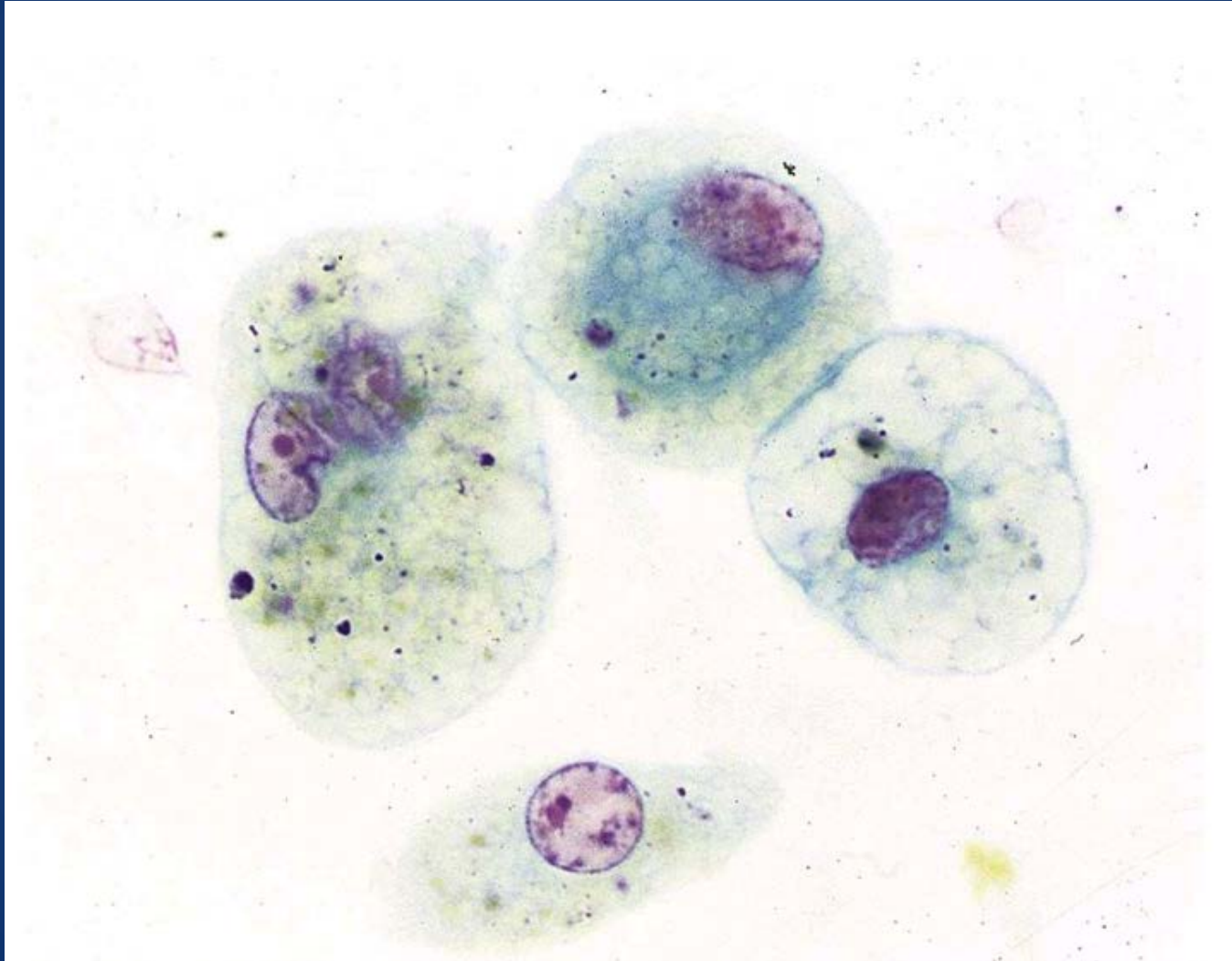
3rd year PG

DEPT OF PATHOLOGY

Normal ciliated bronchial cells

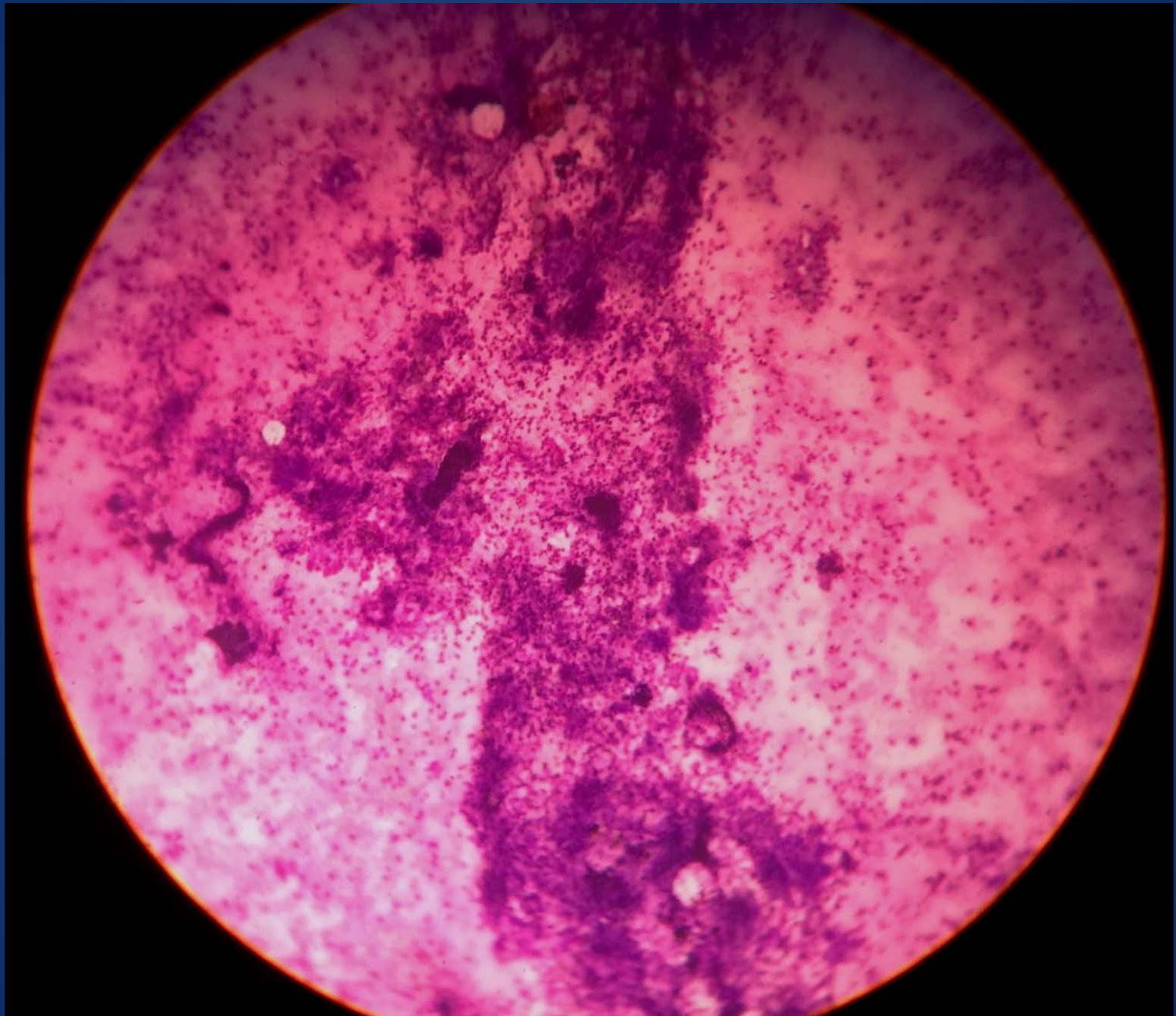


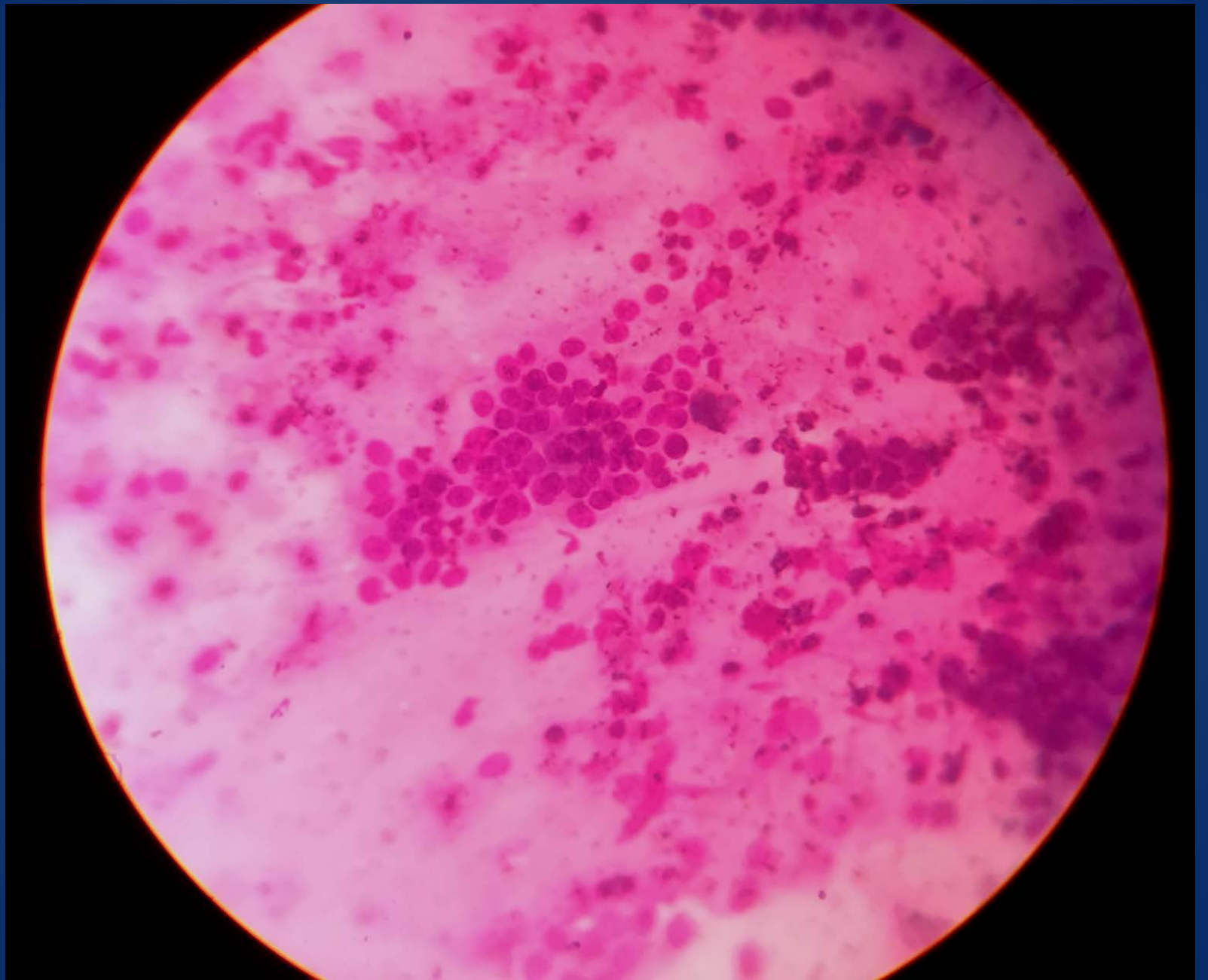
PULMONARY ALVEOLAR MACROPHAGES

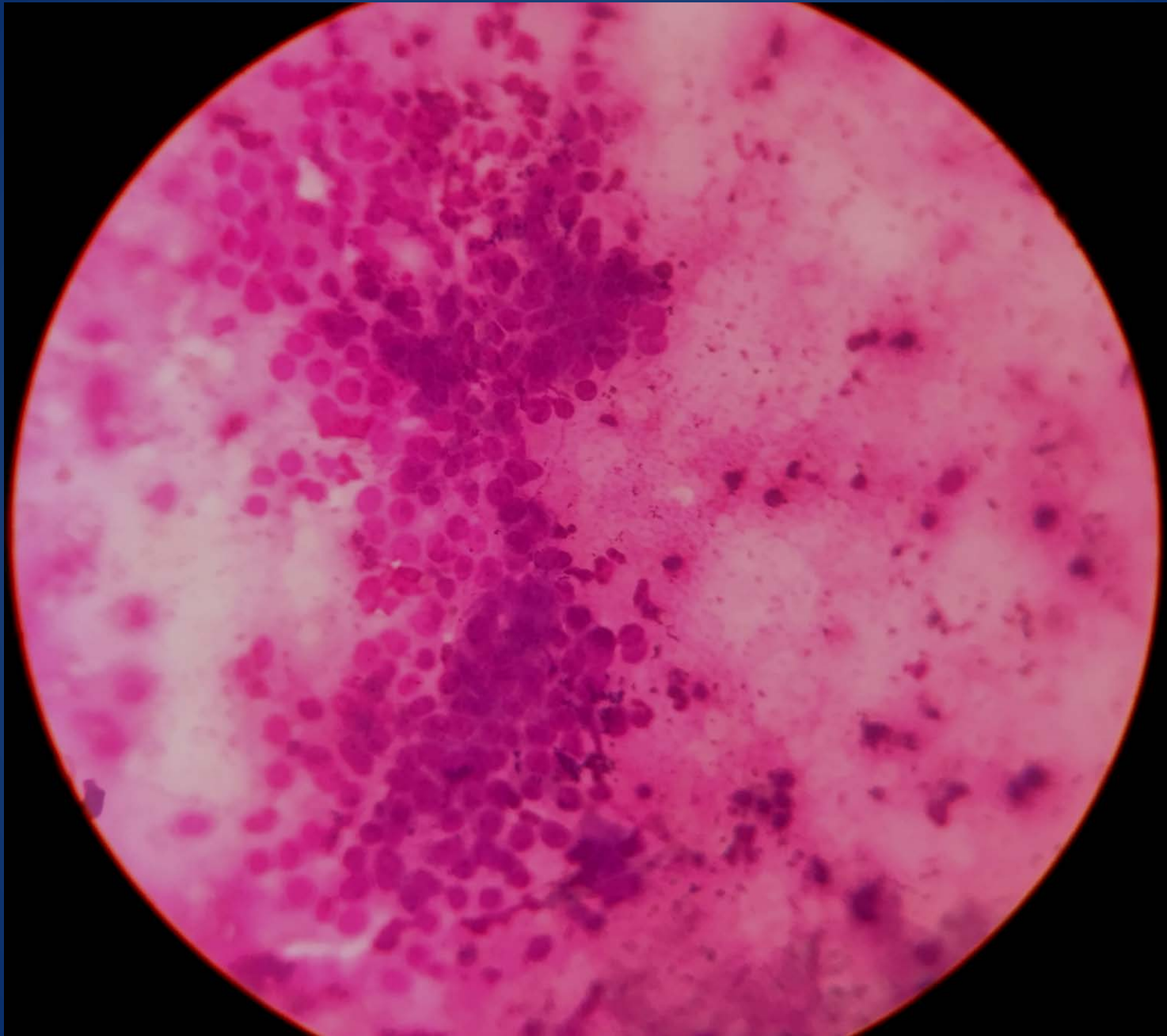


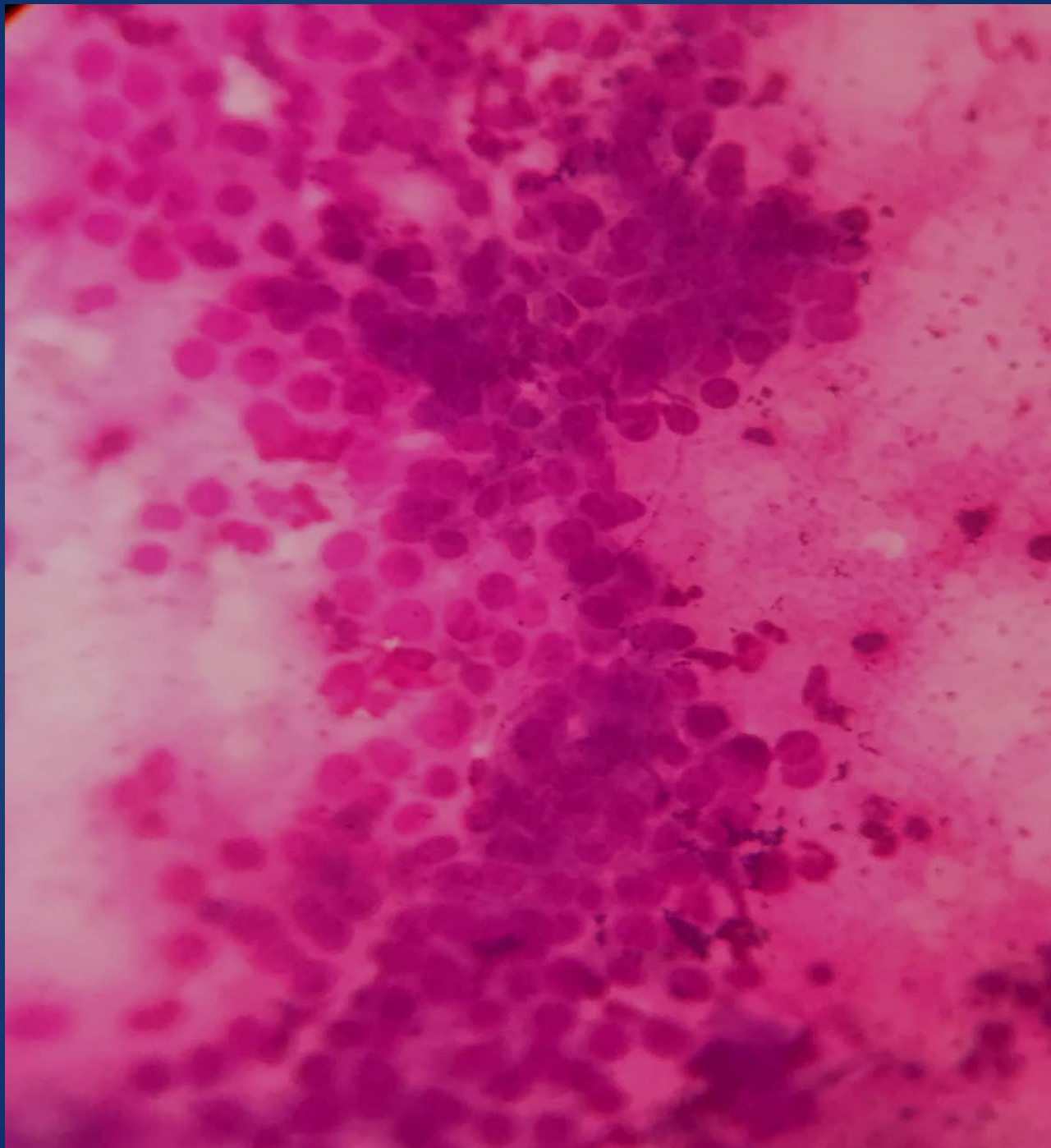
RECEIVED TBNA SLIDES

- Requisition labelled
K. Mallaiah
65 yrs , M
Pulmonology
CYT no. – 2625/17









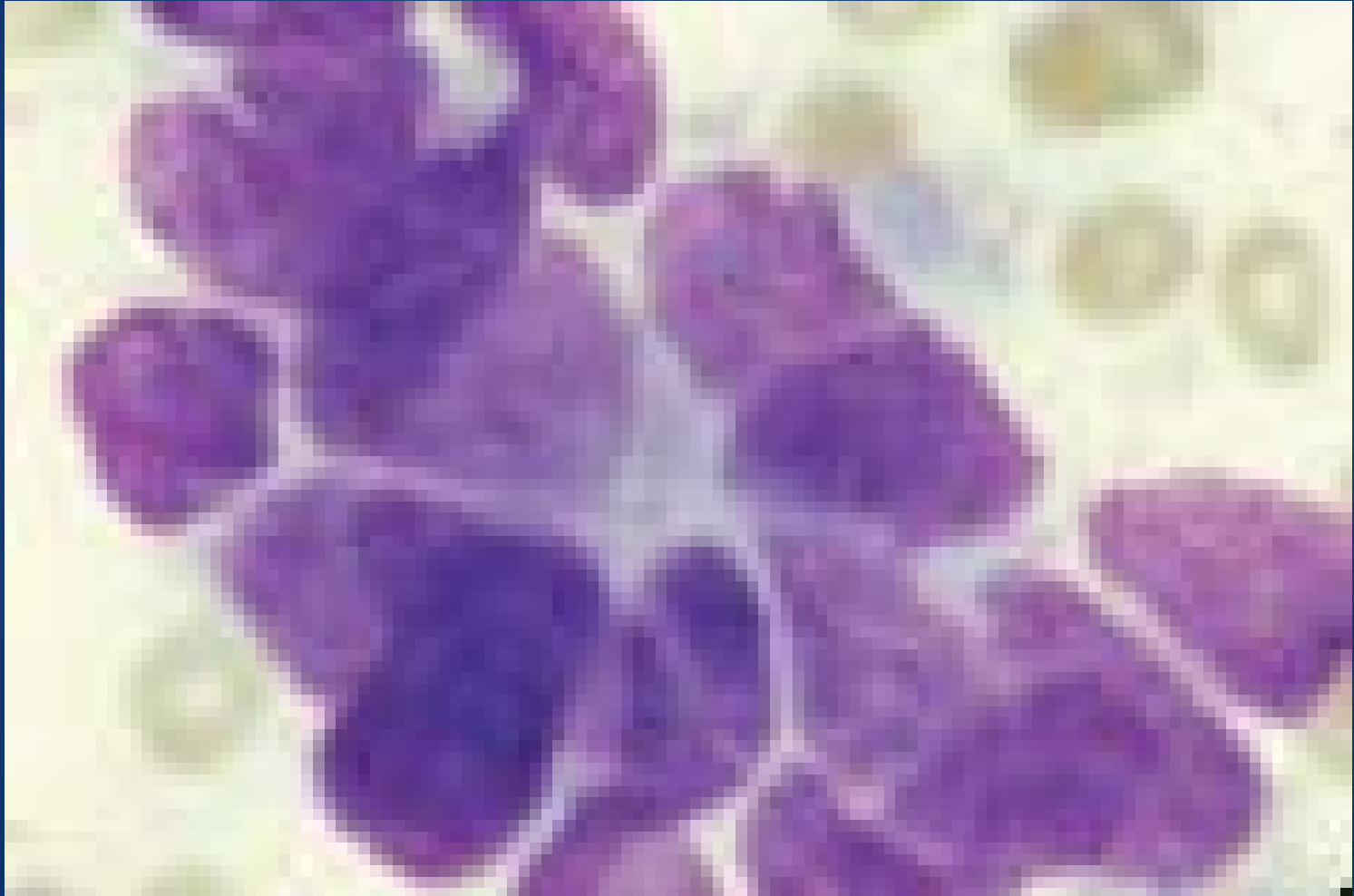
MICROSCOPY FINDINGS

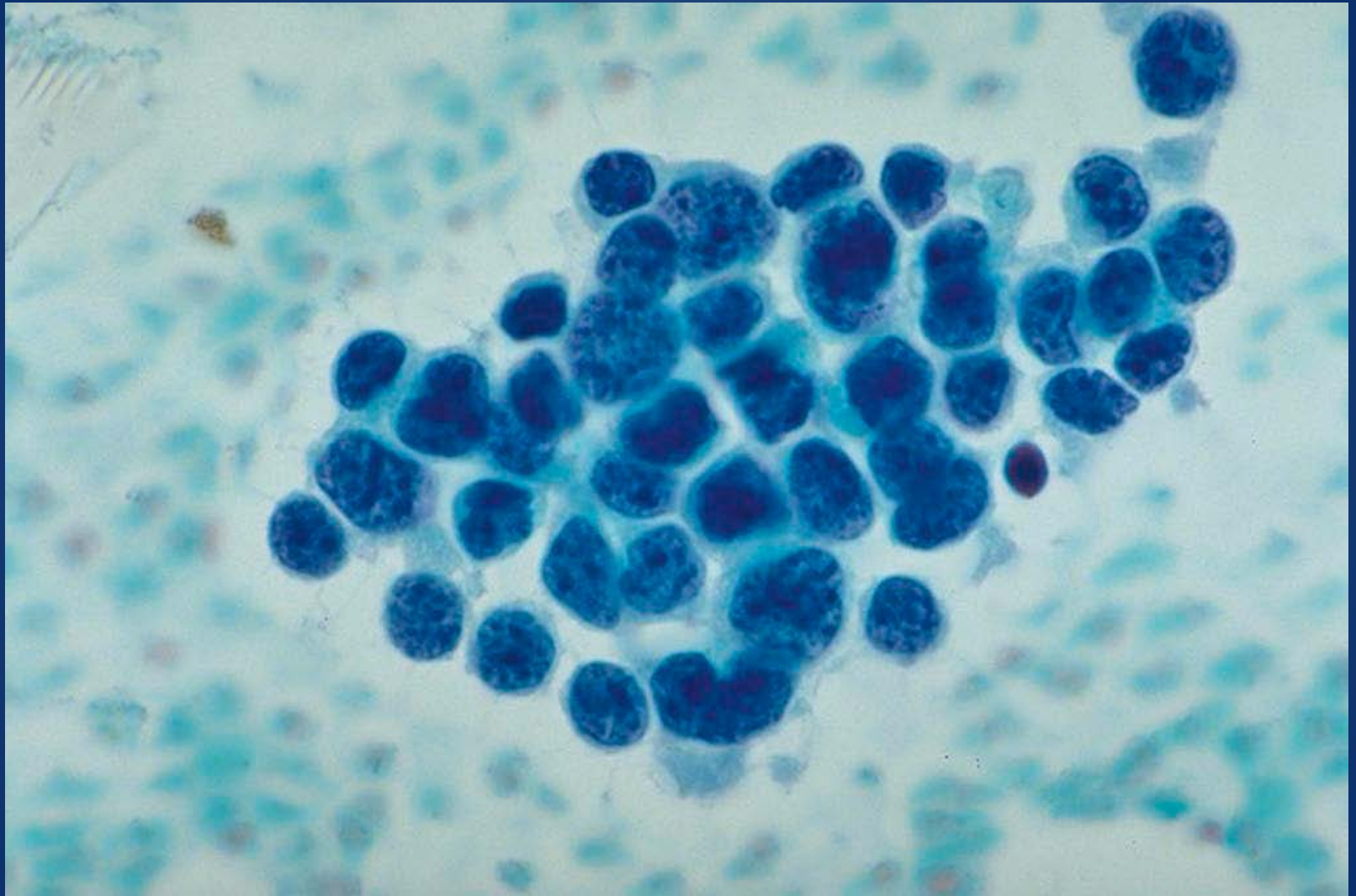
- Cellular smear
- Tight clusters of cells
- Sheets of cells and few singly dispersed
- Focal acinar formation
- Polygonal cells with moderate eosinophilic cytoplasm
- Round to oval nucleus with mild pleomorphism
- Prominent nucleoli

SMALL CELL CARCINOMA

- Small cells with scant cytoplasm
- Illdefined cell borders
- Finely granular nuclear chromatin
- Absent or inconspicuous nucleoli.
- *Nuclear molding* is prominent
- *Necrosis* is typically extensive
- Mitotic count is high

NUCLEAR MOLDING

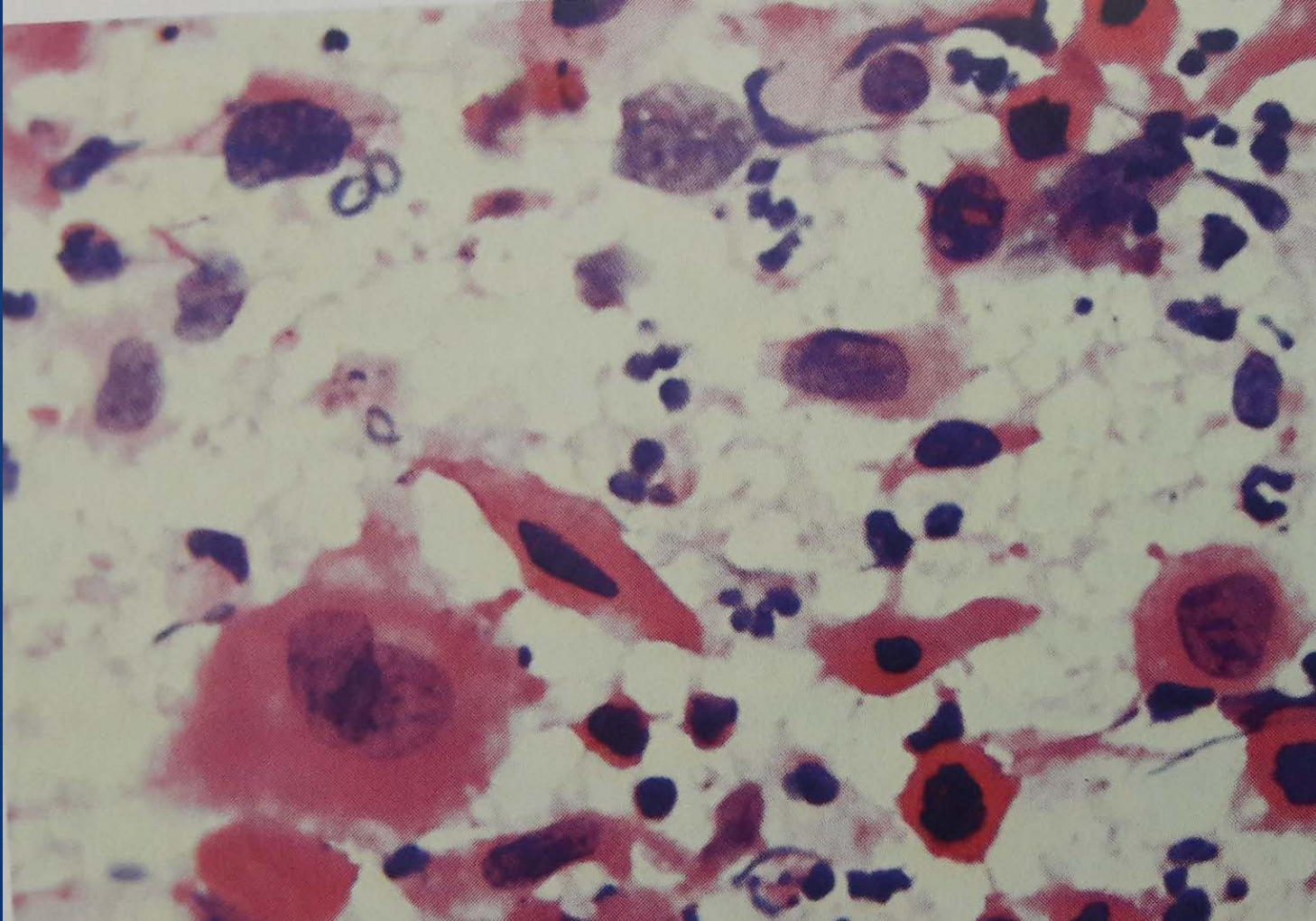




SQUAMOUS CELL CARCINOMA

- Abundant dyscohesive cells
- Polymorphic cell shapes: polygonal, rounded,
- Elongated (fiber-like), tadpole shaped
- Dense cytoplasmic orangeophilia
(Papanicolaou stain)
- Pyknotic nuclei
- Frequent anucleate cells

SQUAMOUS CELL CARCINOMA

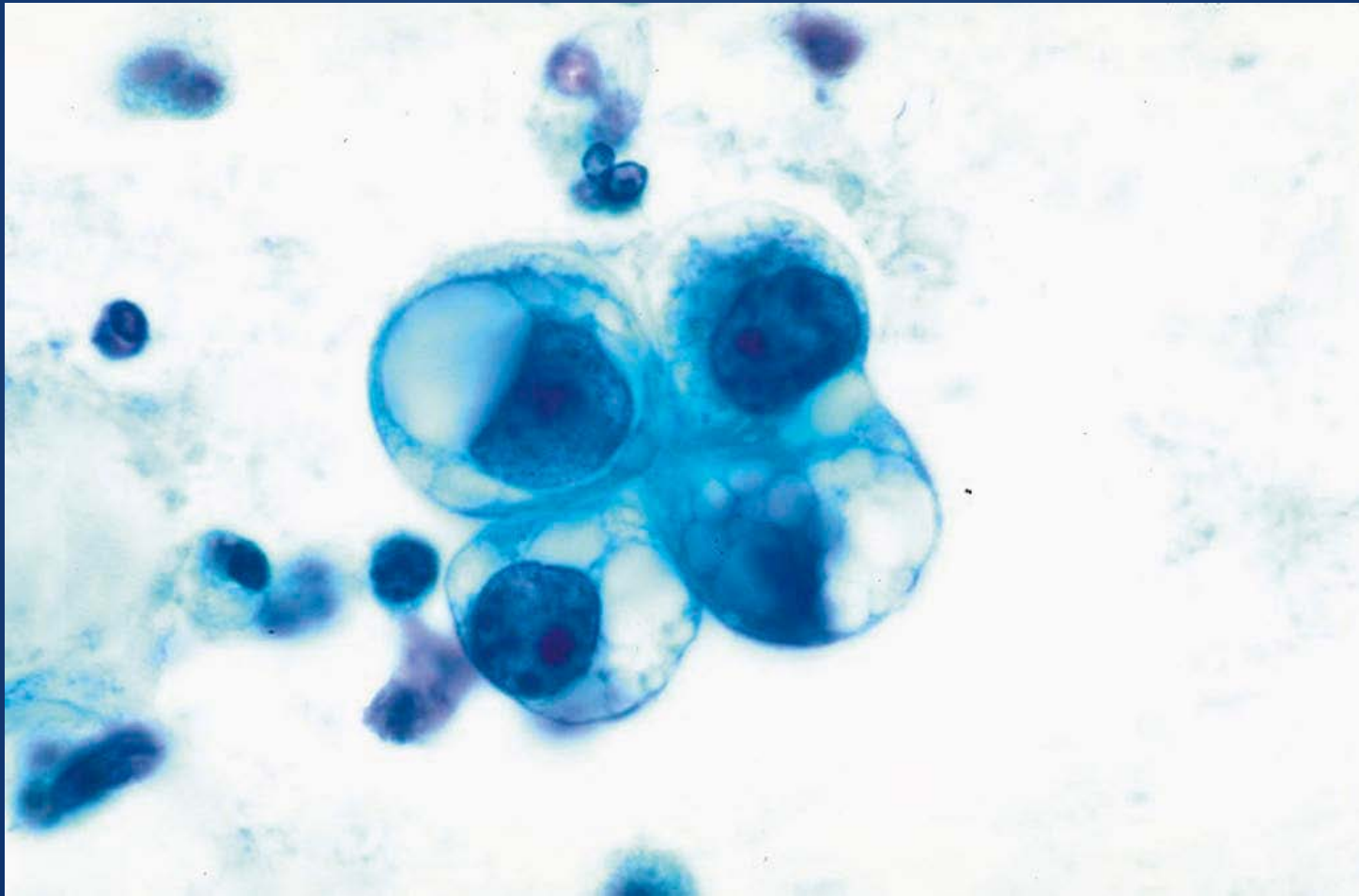


ADENOCARCINOMA

- Honeycomb-like sheets, three-dimensional clusters, acini, papillae
- Eccentrically placed, round or irregular nuclei
- Finely textured chromatin
- Large nucleoli
- *Mucin vacuoles*
- Translucent, foamy cytoplasm

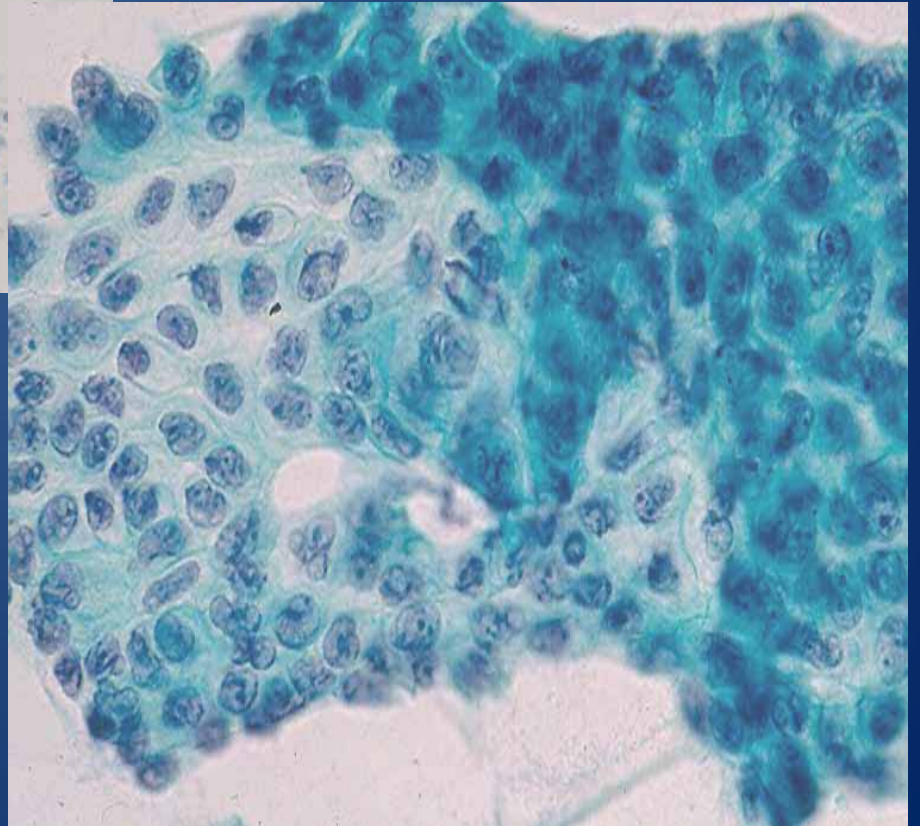
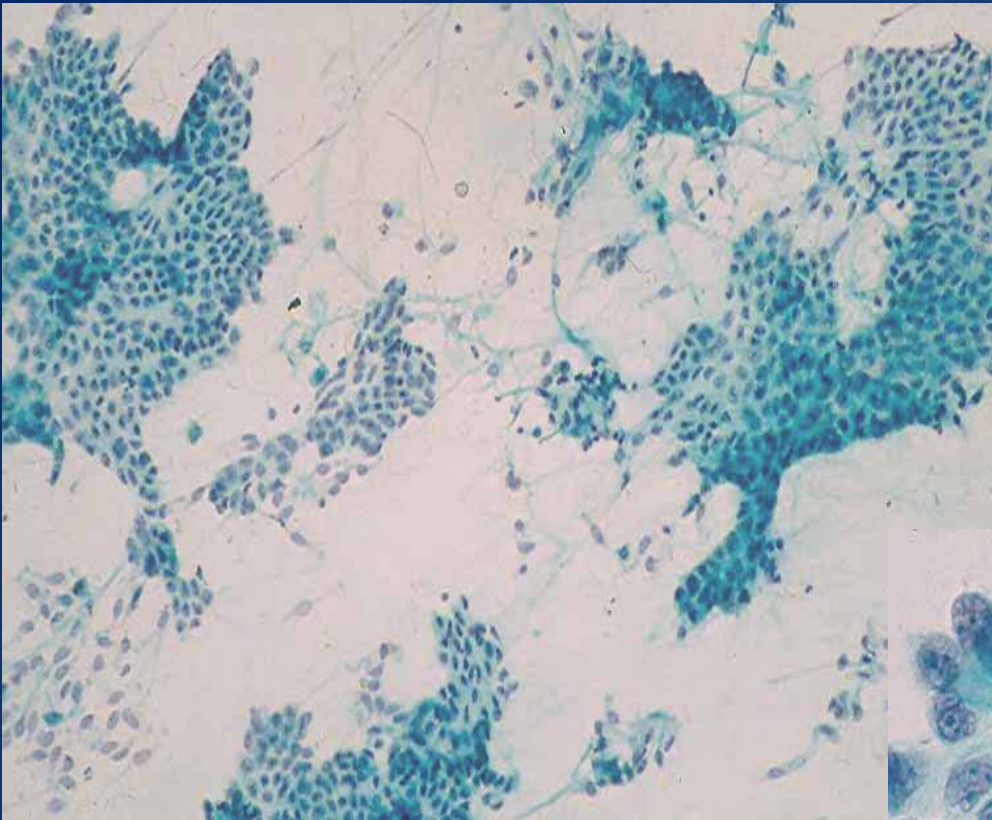


INTRACYTOPLASMIC MUCIN VACUOLES



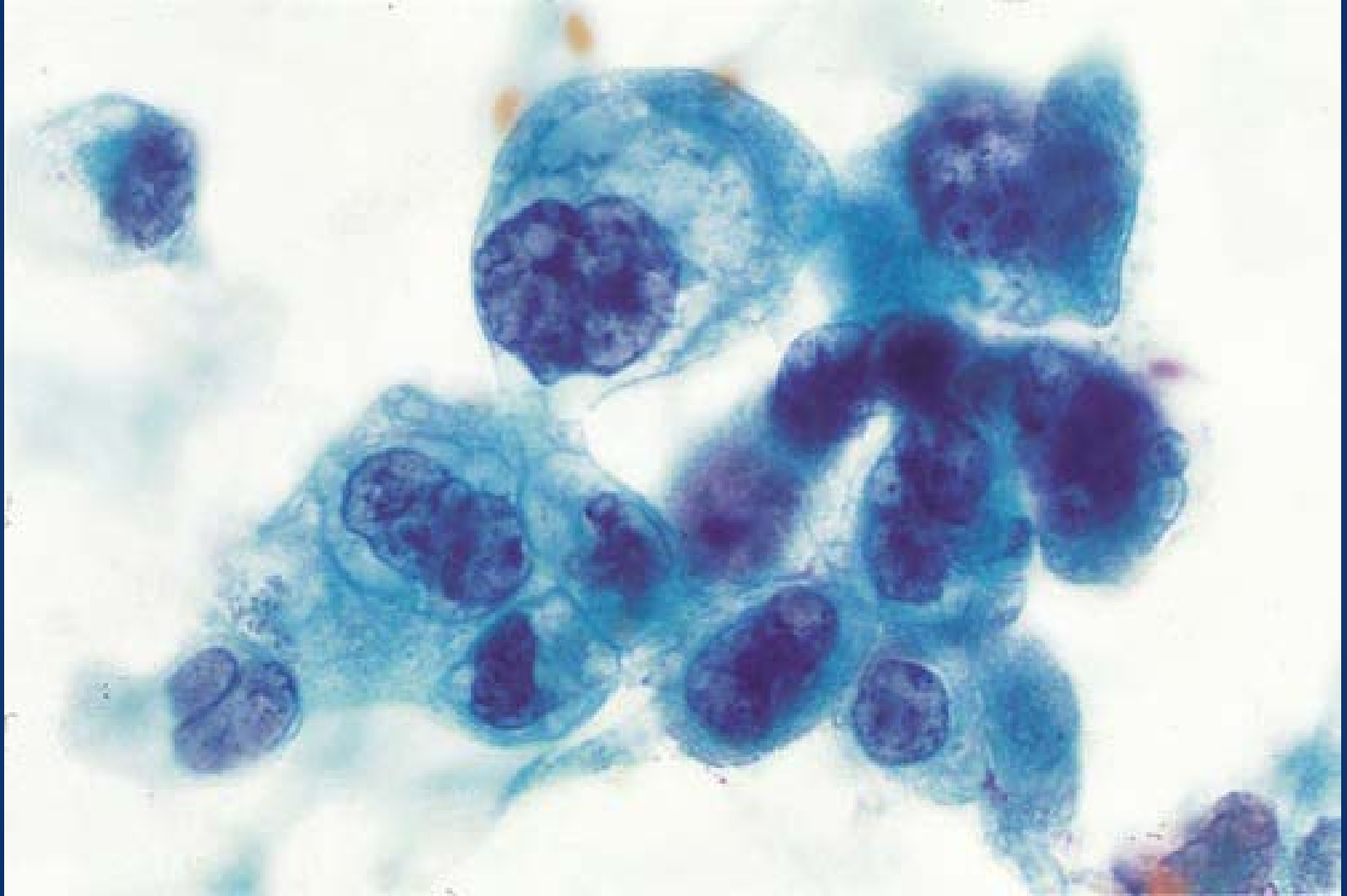
BRONCHOALVEOLAR CARCINOMA

- Monolayered sheets and ball like clusters
- Papillary fragments of cells
- Round to oval cells with moderate *vacuolated cytoplasm*
- Mild to moderate nuclear atypia
- *Inconspicuous nucleoli*
- *Intranuclear inclusions*



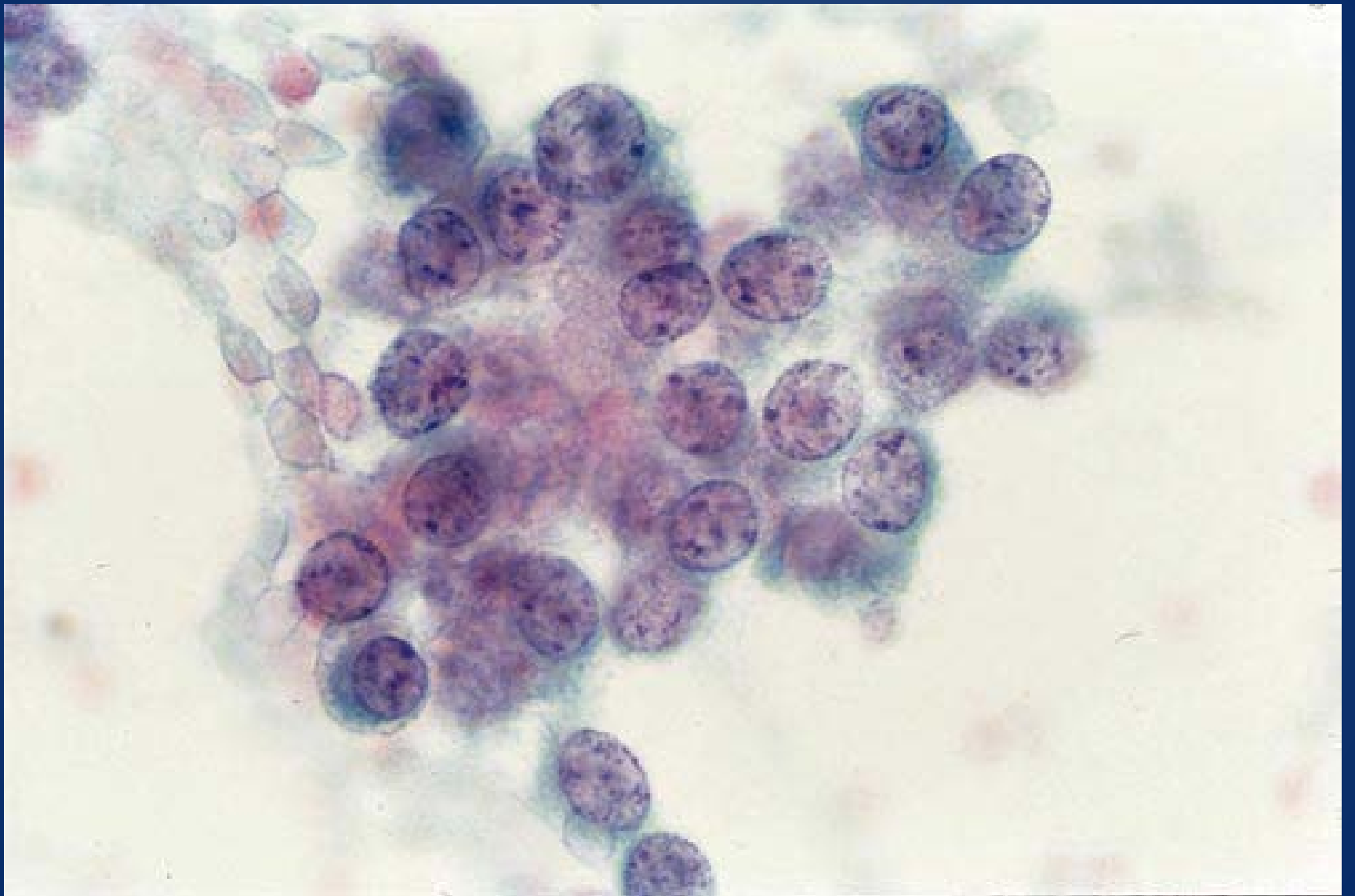
LARGE CELL CARCINOMA

- Syncytial clusters and dispersed cells
- *Irregular nuclei*
- Striking chromatin clearing
- Prominent, often *multiple nucleoli*
- Ill-defined, feathery cytoplasm



TYPICAL CARCINOID

- Loosely cohesive groups and single cells
- *Rosette-like* structures
- Round, plasmacytoid, or elongated cells
- Uniform nuclei with “*salt and pepper*” chromatin
- *Ample granular cytoplasm*
- Branching capillaries
- Mitoses uncommon
- No necrosis



- As per the WHO 2015 classification of lung tumors
- If morphological patterns of adenocarcinoma or squamous cell carcinoma when not clearly present then the term

“ NON SMALL CELL CARCINOMA “

- Further biopsy of the lesion is to be advised
- Immunohistochemical markers to be applied to identify
 - adenocarcinoma (TTF 1 or Mucin or NAPSIN A positive)
 - Squamous cell carcinoma (P40 or P63 positive)
 - Neuroendocrine markers (Chromogranin)

- If all markers are negative then the term

“NON SMALL CELL CARCINOMA NOS (NSCC not otherwise specified)”

FINAL DIAGNOSIS

- **“NON SMALL CELL CARCINOMA”**

THANK YOU