

***I Did Not Expect That; Surprises  
During the Daily Practice of Fine-  
Needle Aspiration***

*A Slide Seminar Co-Sponsored by  
American Society of Cytopathology &  
Papanicolaou Society of Cytopathology*

# Case 1

**Dr. Ritu Nayar**

*Professor of Pathology, Northwestern University*

*Feinberg School of Medicine*

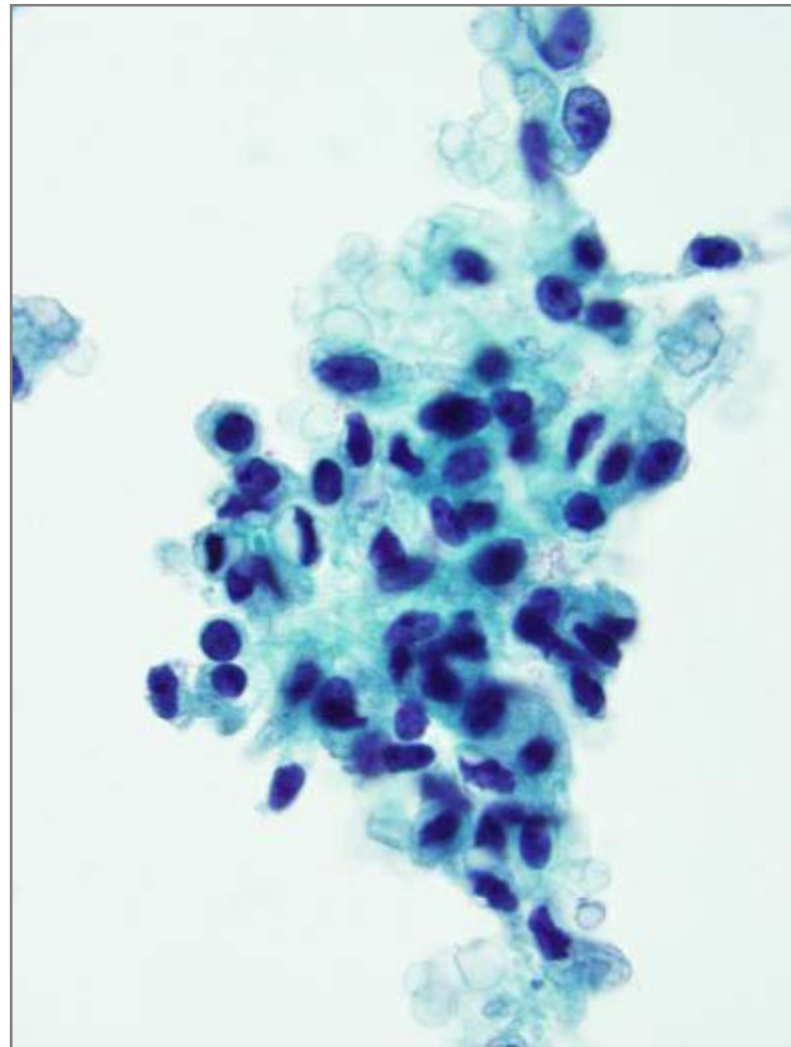
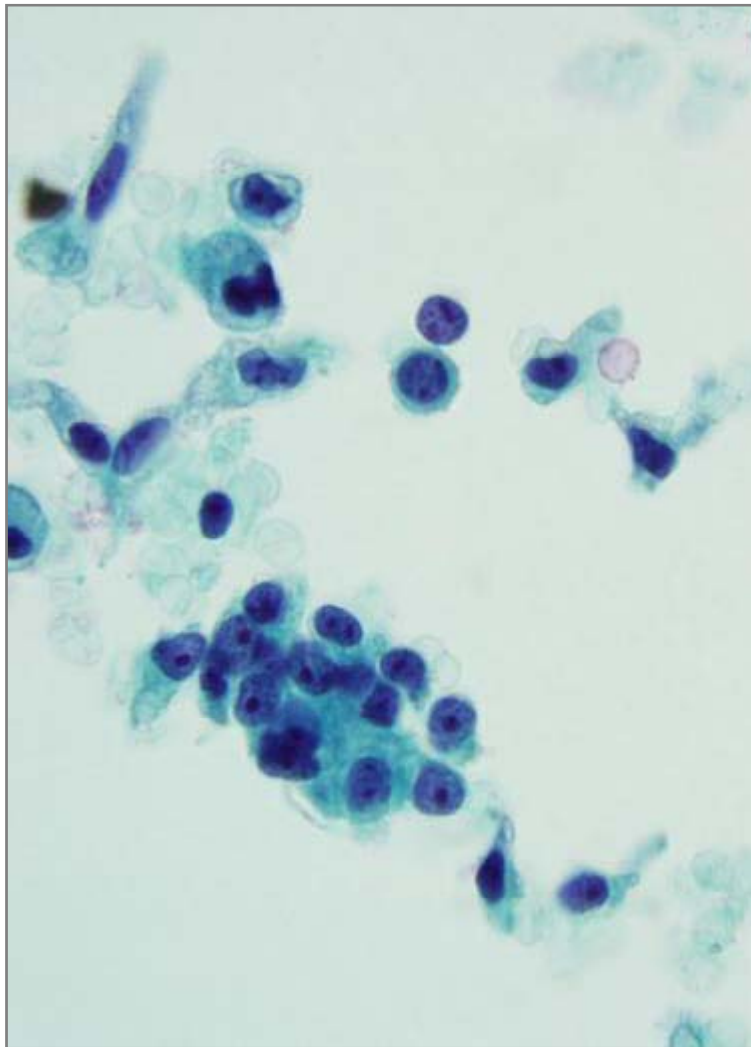
*Chicago, Illinois*

# CASE HISTORY

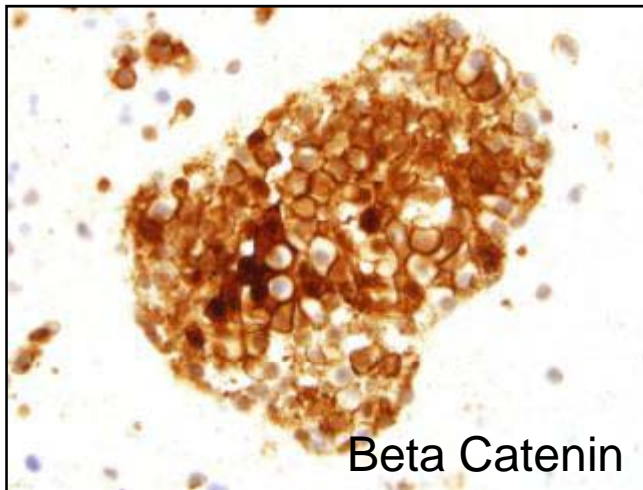
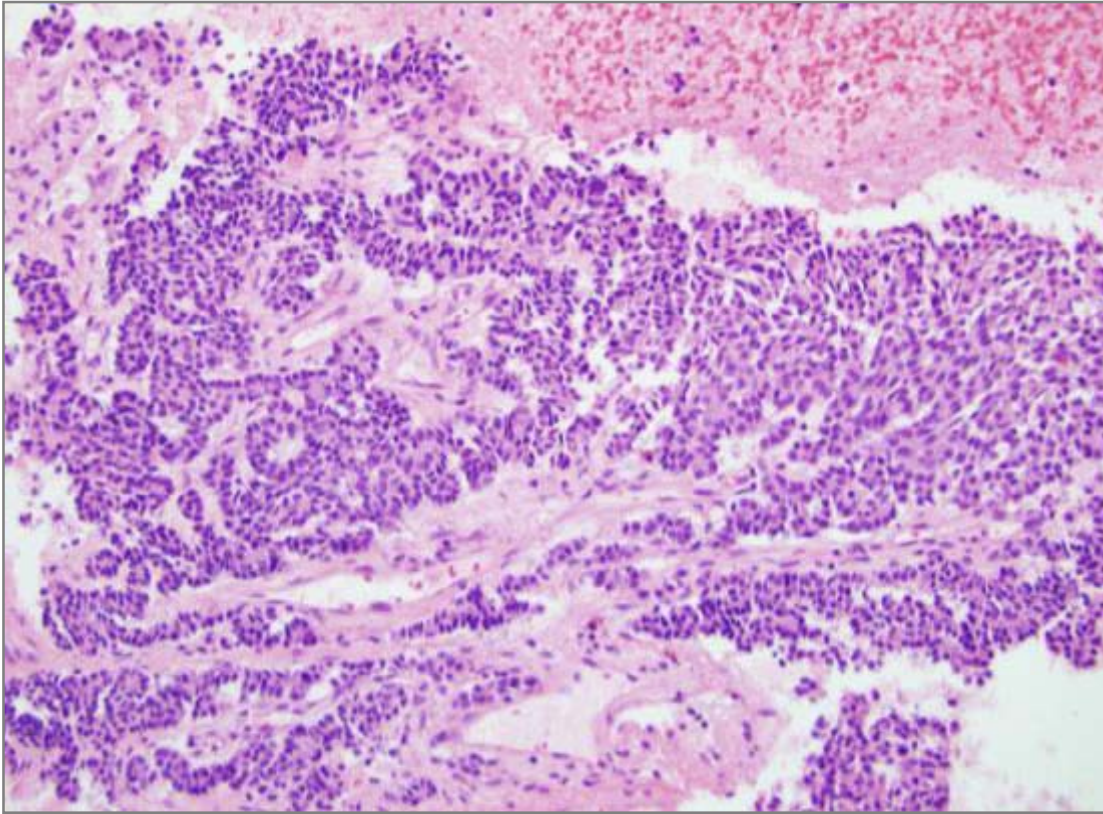
- 44 year old female
- 12 x 6 x 7 cm well defined mass in the head of the pancreas
- Patient sought a second opinion on FNA material at Northwestern Memorial Hospital, Chicago
- Cytopathology received one ThinPrep slide and cell block/immunostains for review

# Cytologic Features

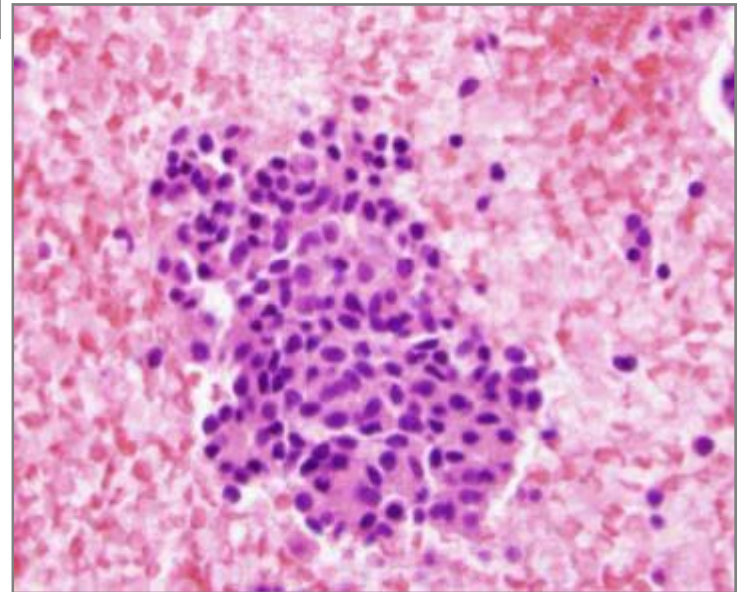
## One Thin Prep slide



# Cytology Cell Block



Beta Catenin



Diagnosis ?

# Case 2

**Dr. Tarik Elsheikh**

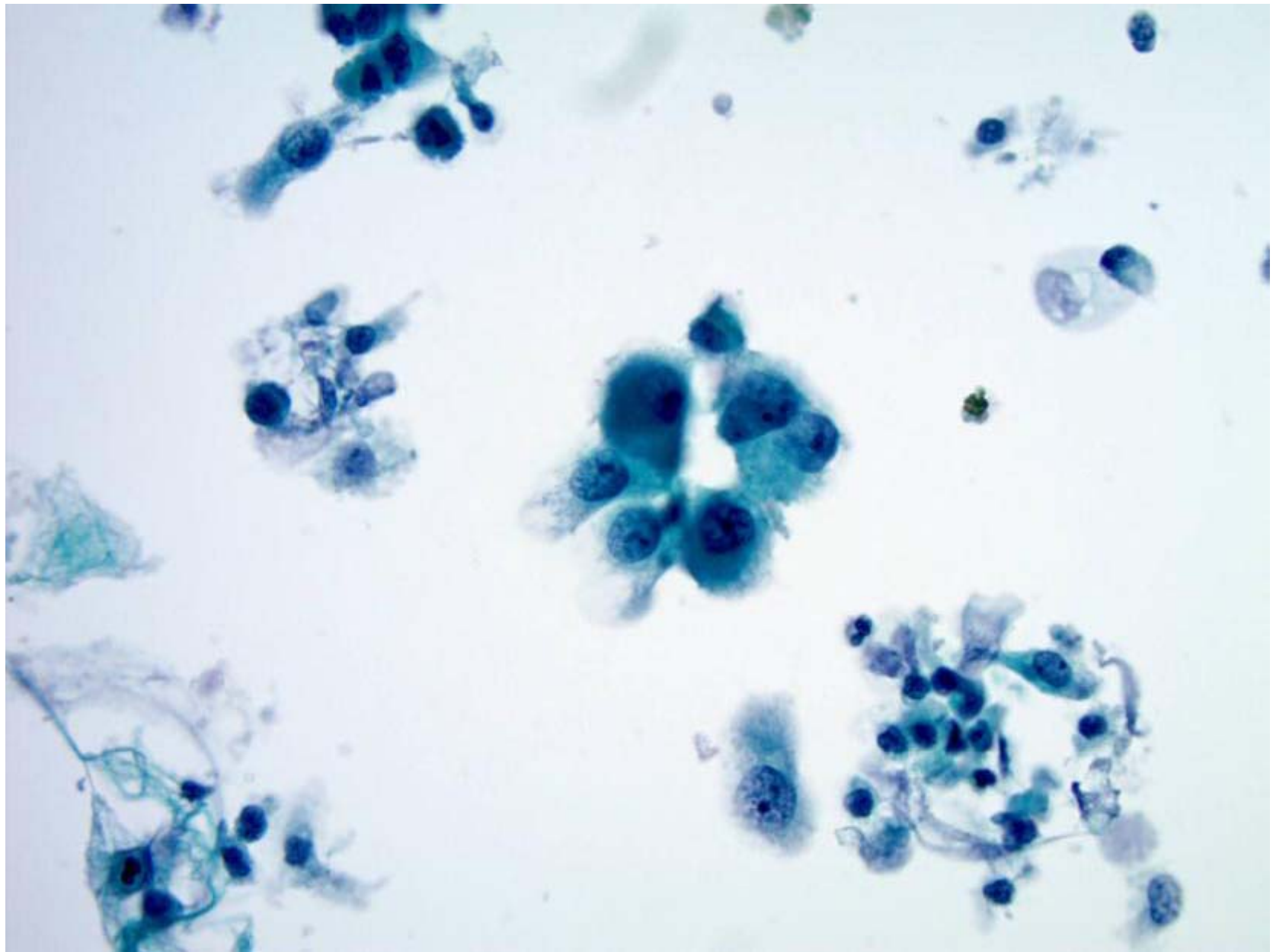
*Staff Pathologist, Cleveland Clinic*

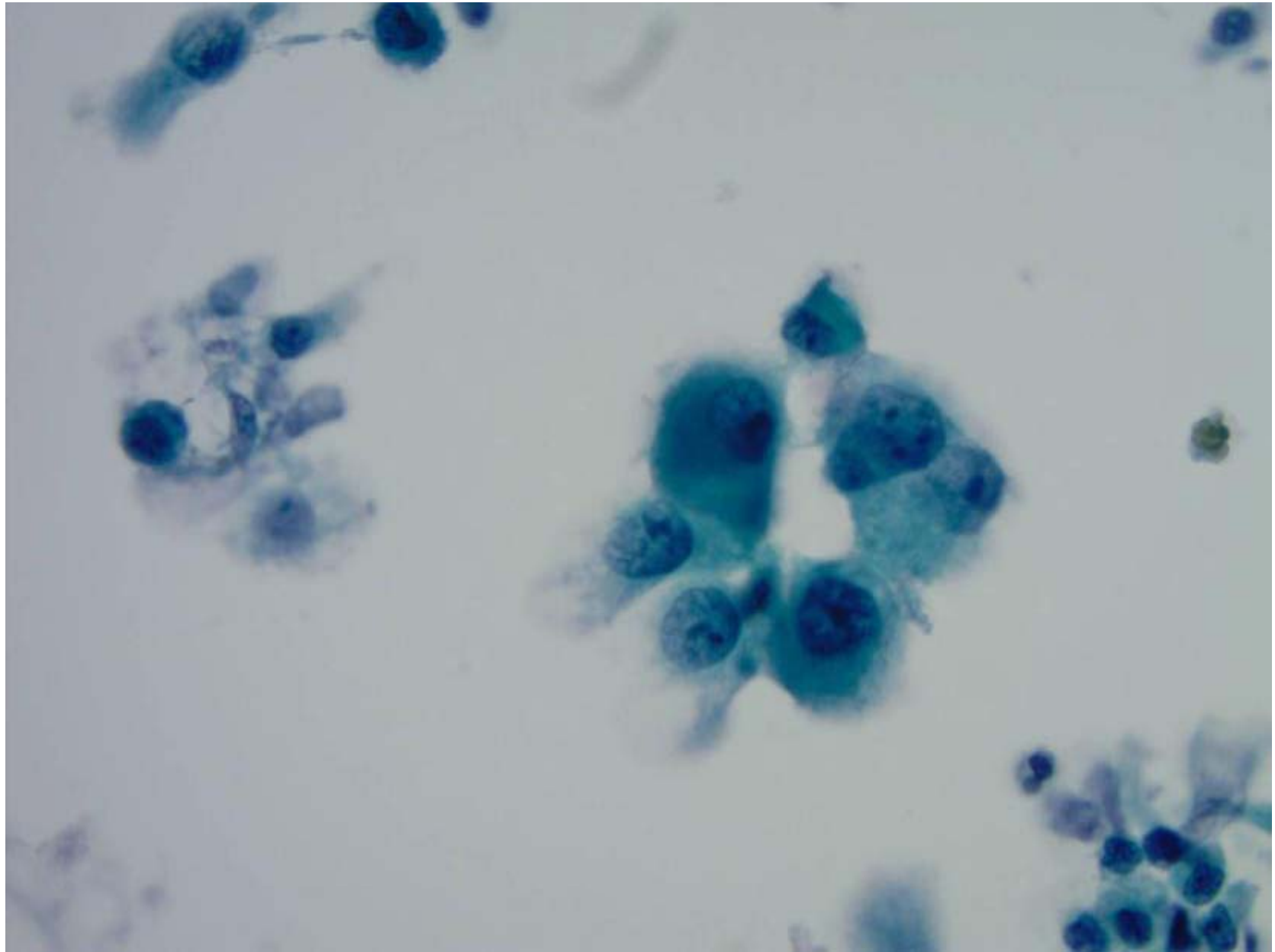
*Cleveland, Ohio*

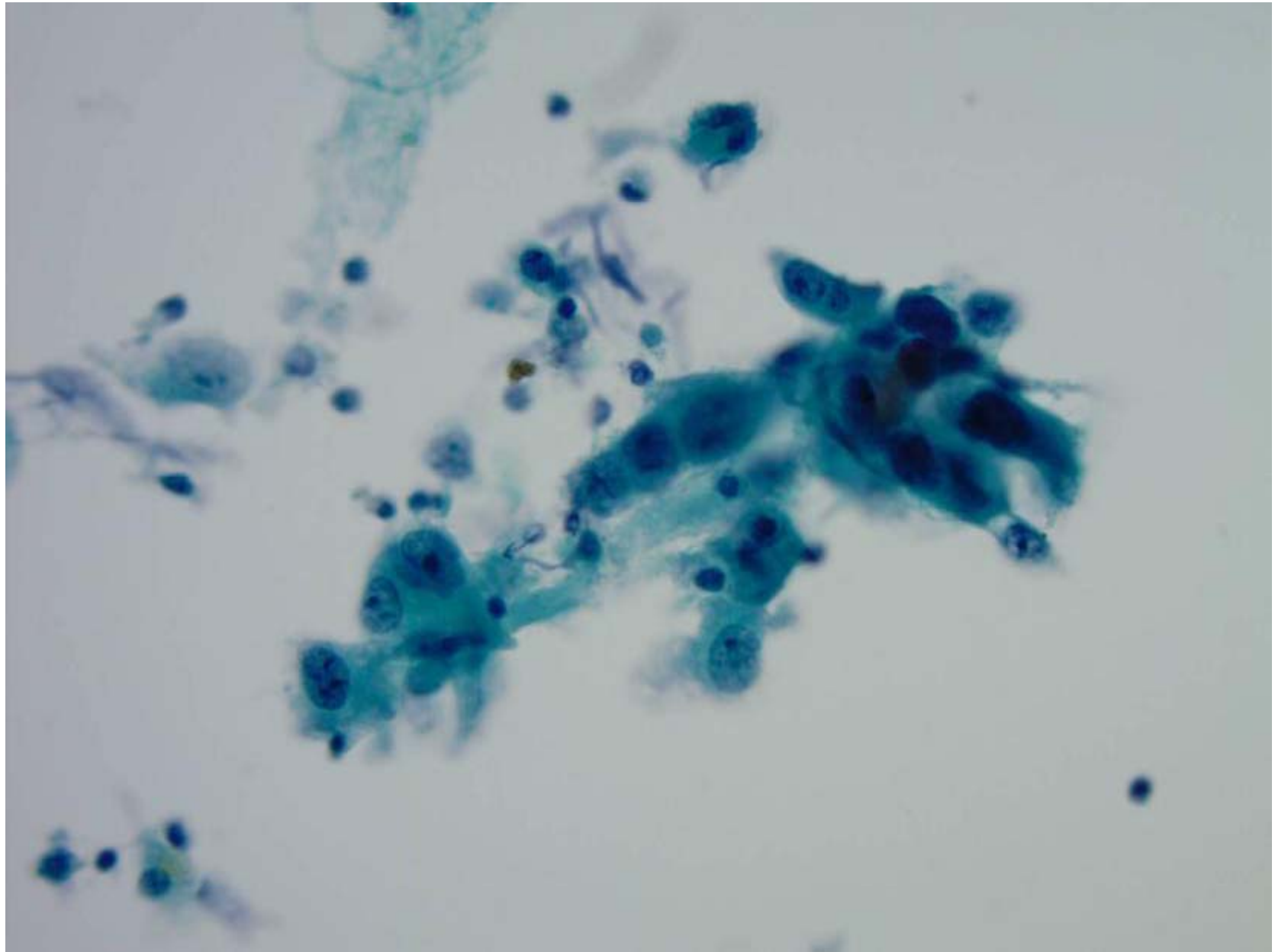
# Case History

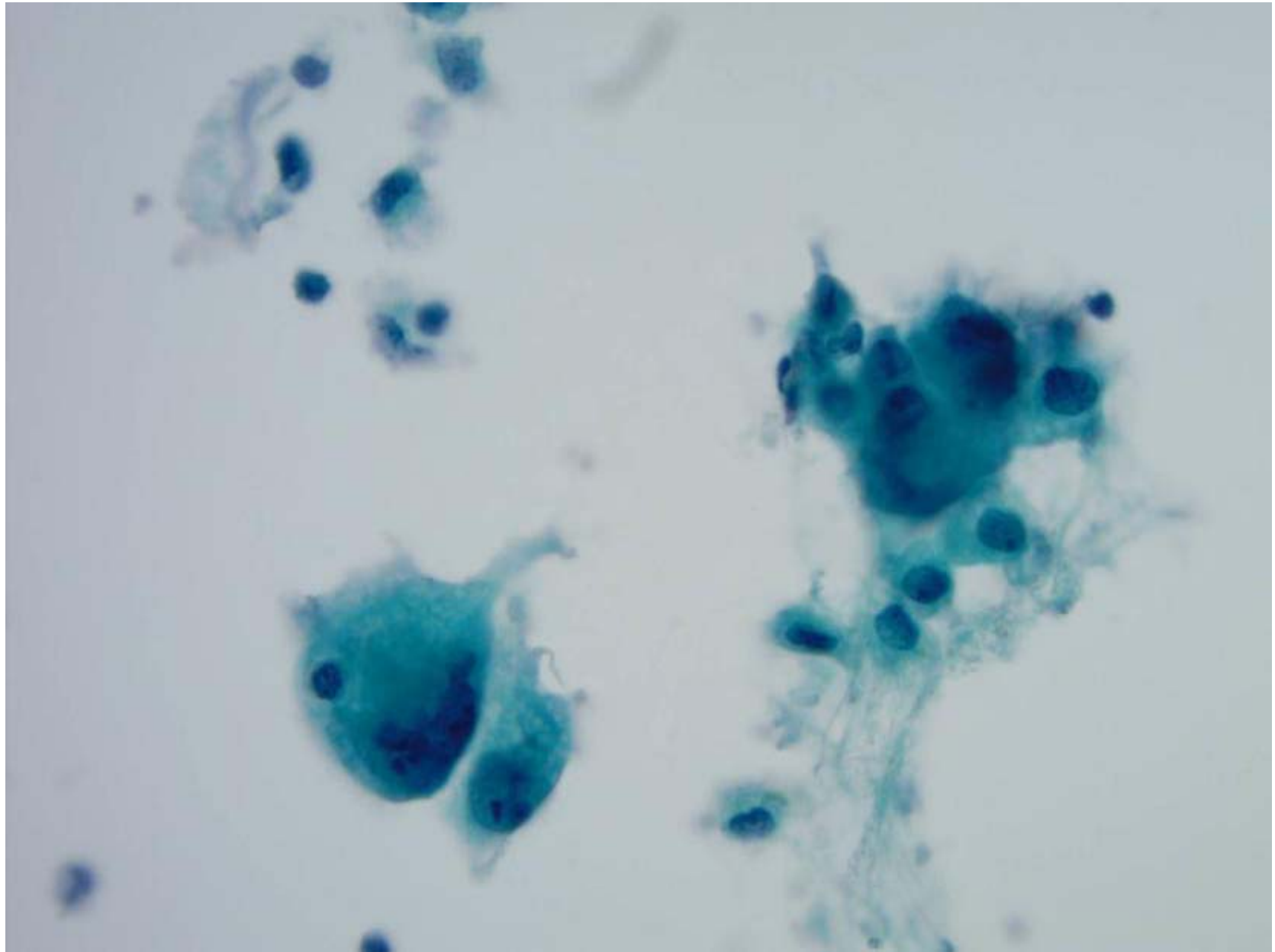
- Pleural fluid cytology (SurePath) from a 65 year old man. He presented with pleural thickening/mass two weeks earlier, at which time underwent a core biopsy that was diagnosed as “Mesothelioma”. The neoplasm was WT1 positive, and negative for CEA, TTF1, and Renal cell antigen. There is no previous history of other malignancies.

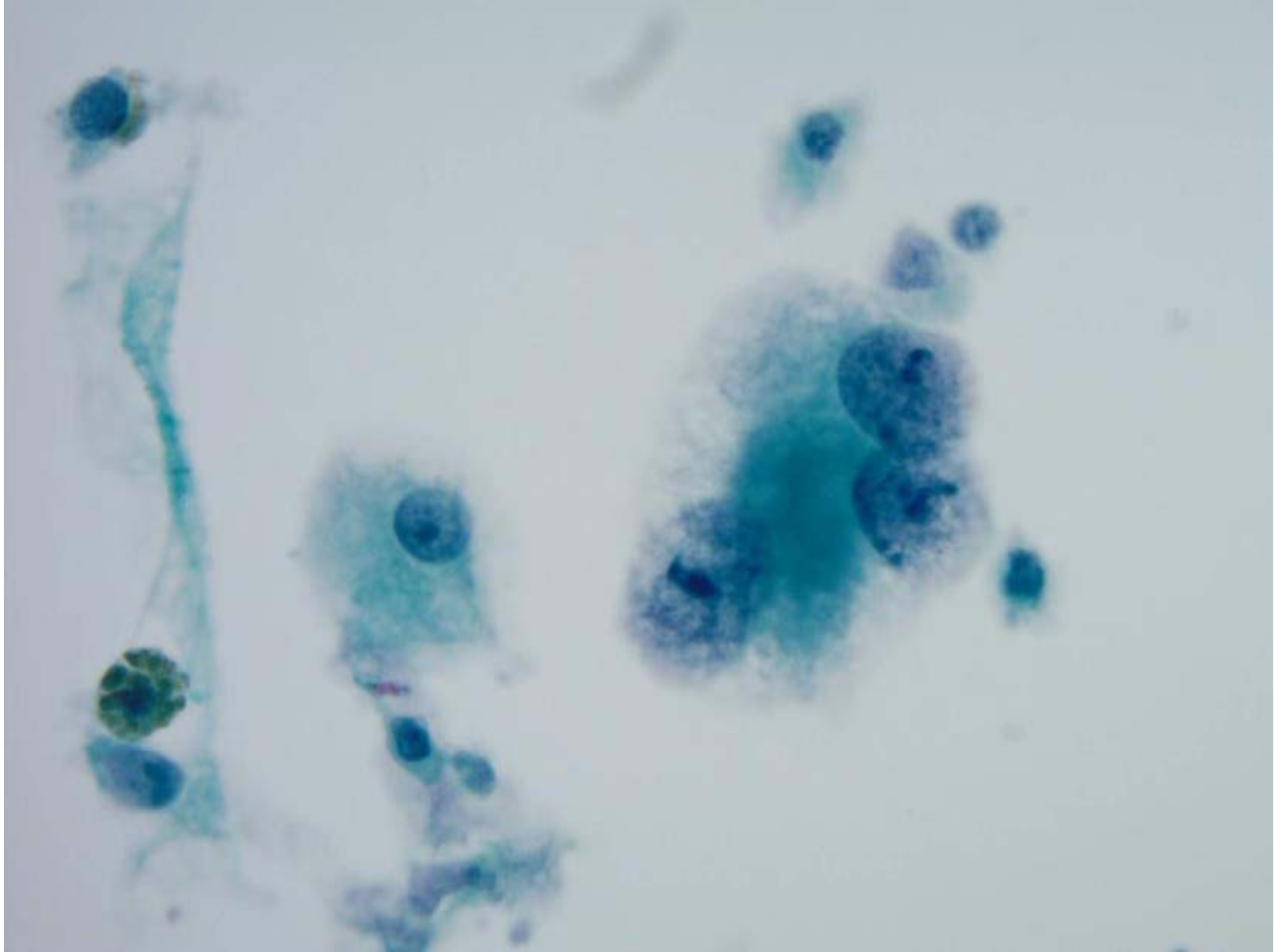


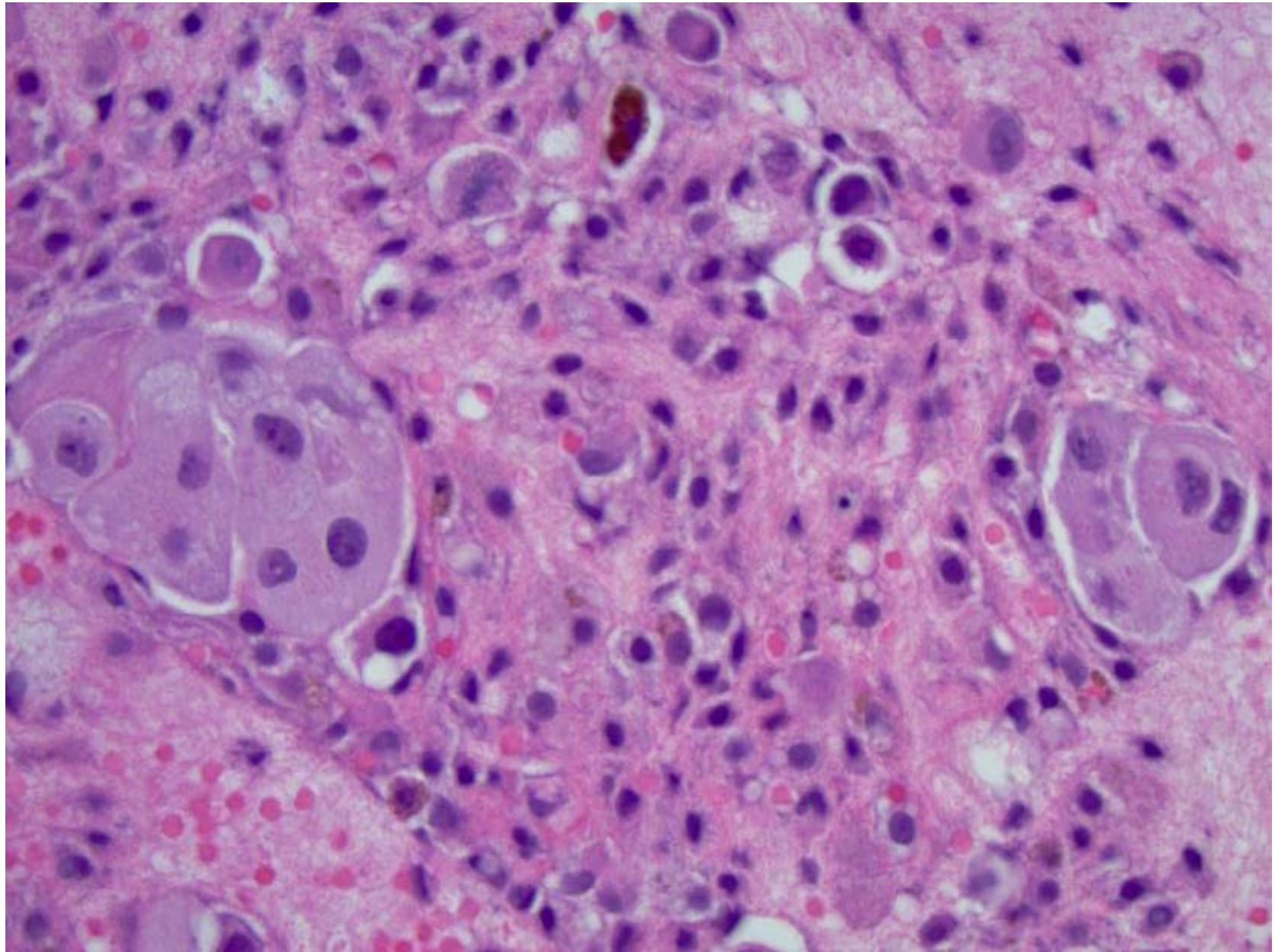












Diagnosis?

# Case 3

**Dr. Philippe Vielh**

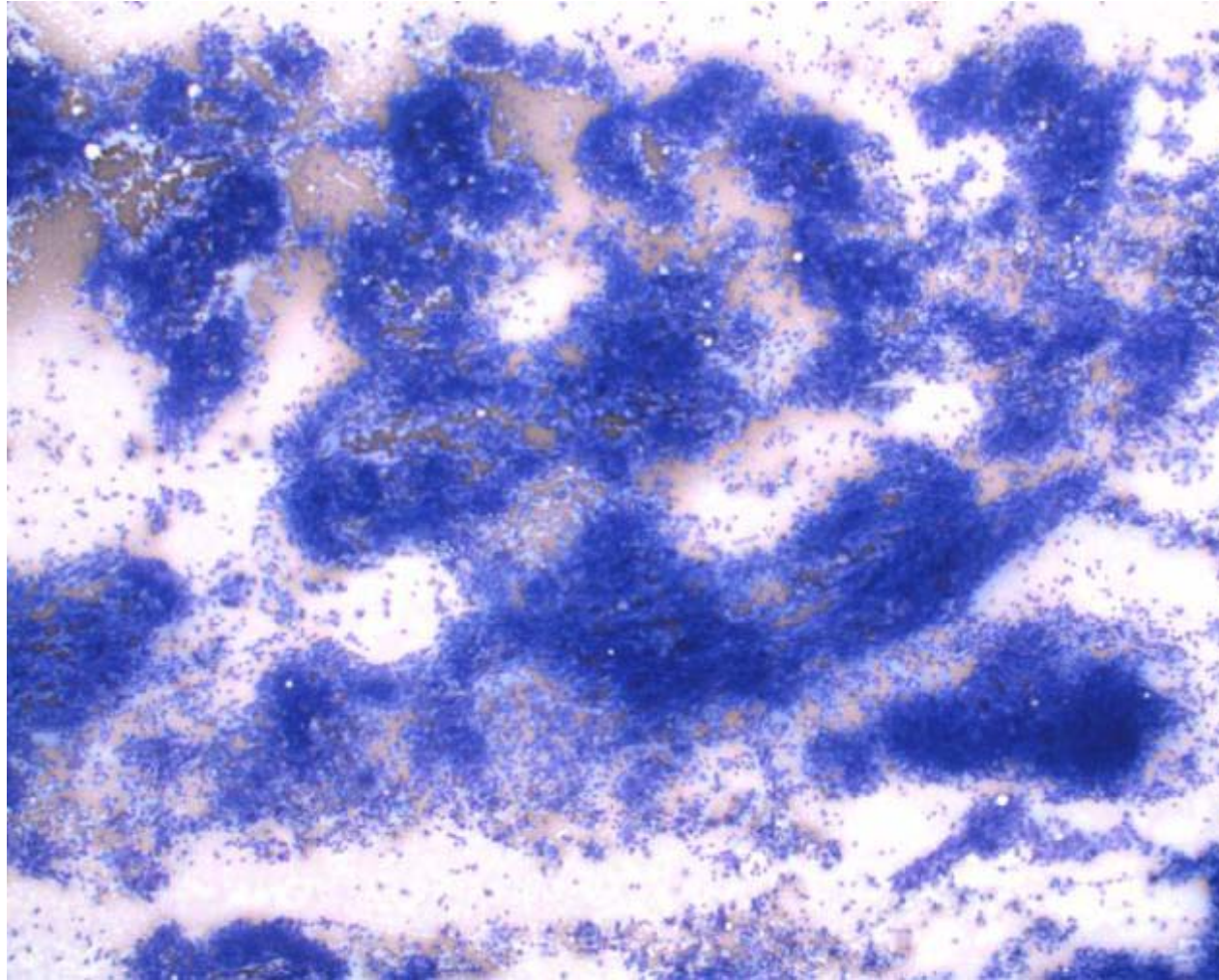
*Département de Pathologie  
Institut Gustave Roussy  
Villejuif CEDEX*



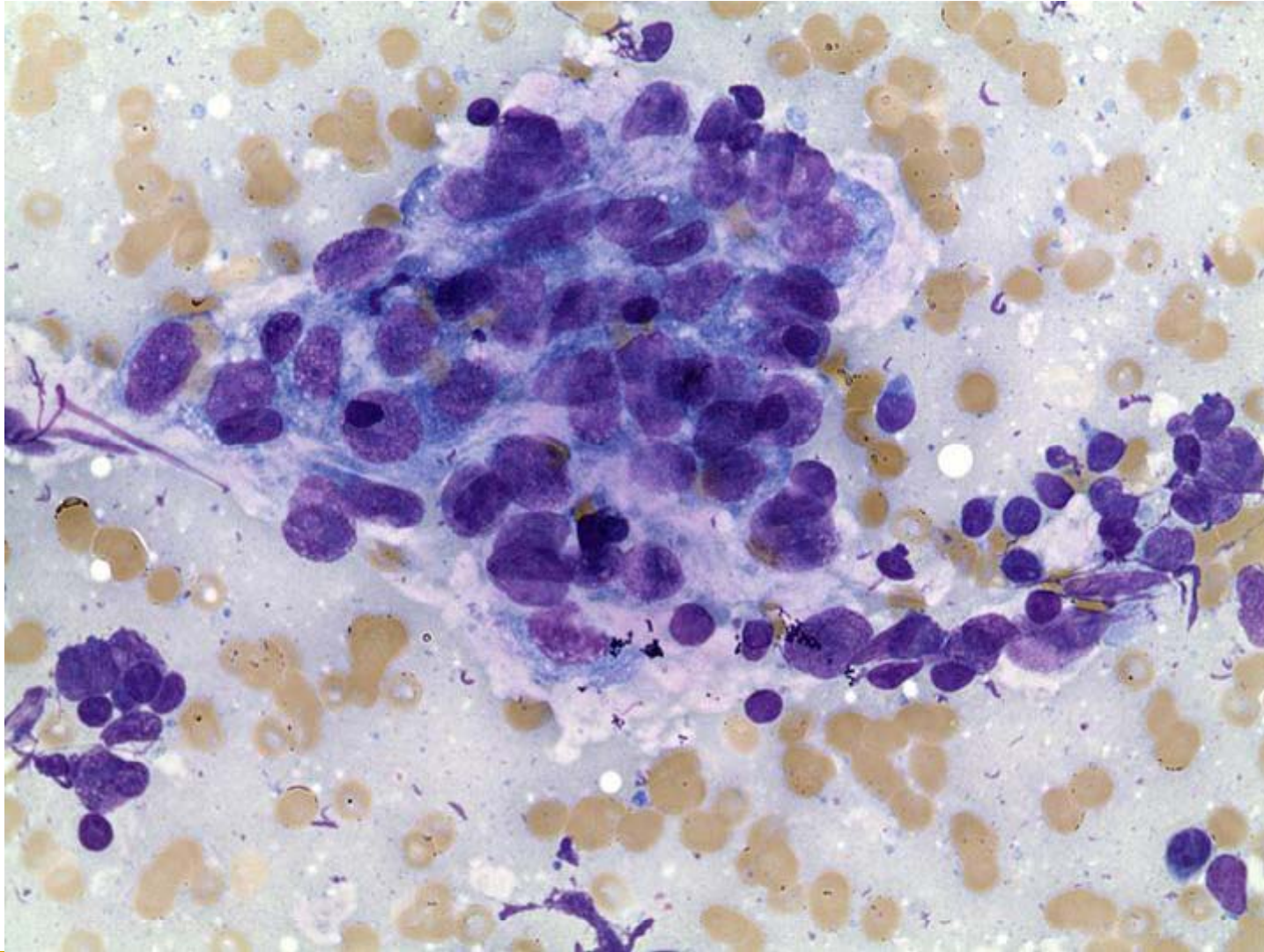
# Clinical findings

- **67 yr old man**
  - **2003: incomplete surgery for prostatic carcinoma, Gleason 6**
  - **2009: right and painful inguinal adenopathy, 2 cm in diameter**
- **Clinical examination**
    - **isolated inguinal lymph node, no hepatosplenomegaly**
  - **Biology**
    - **No blood abnormality**
    - **No increase of PSA**
  - **Imaging:**
    - **Suspicious echography**
    - **Normal CT-Scan and scintigraphy**

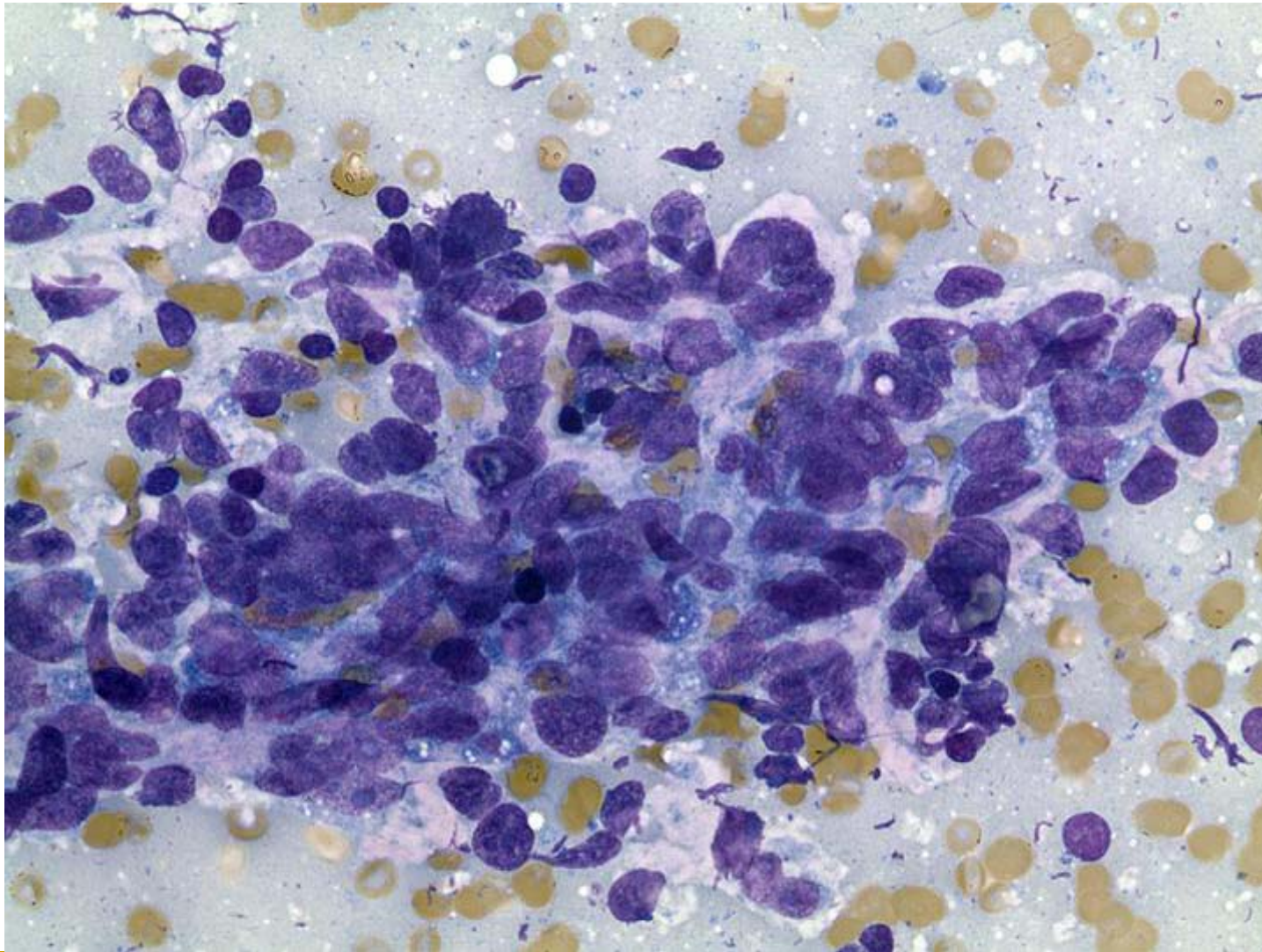
# FNAC (1)



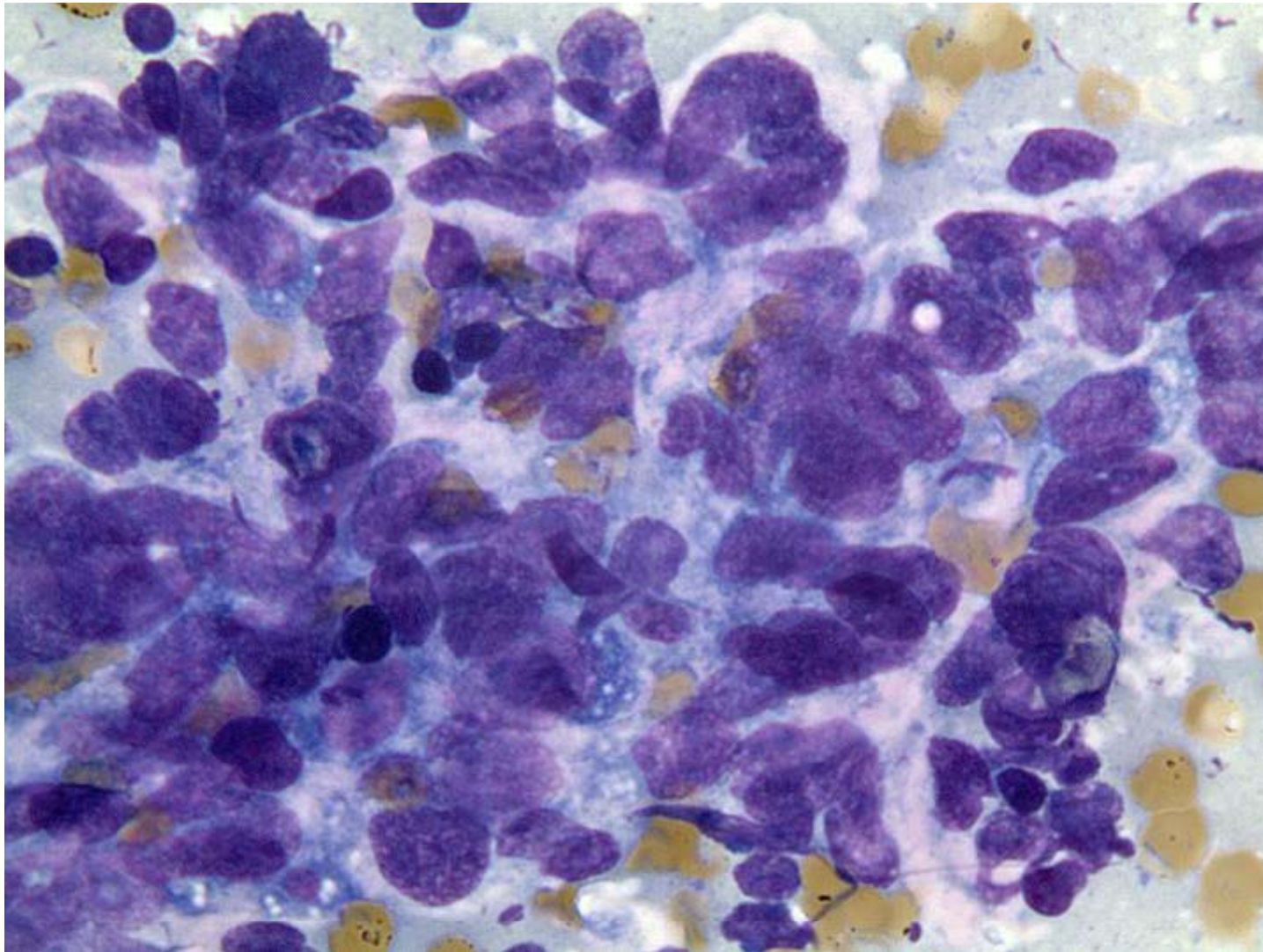
## FNAC (2)



# FNAC (3)



# FNAC (4)



Diagnosis?

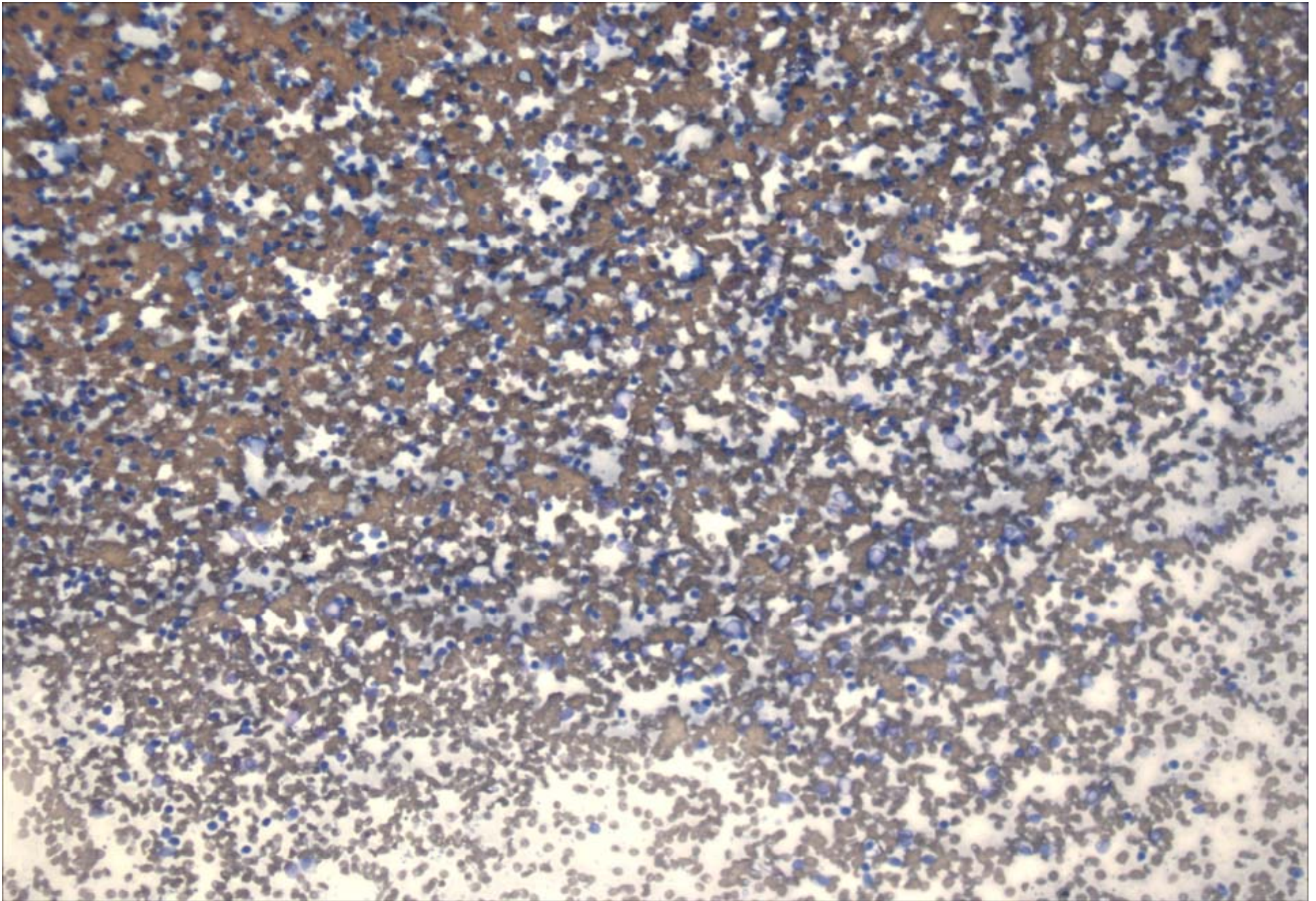
# Case 4

**Dr. David Chhieng**  
*Professor of Pathology*  
*Yale University*  
*New Haven CT*

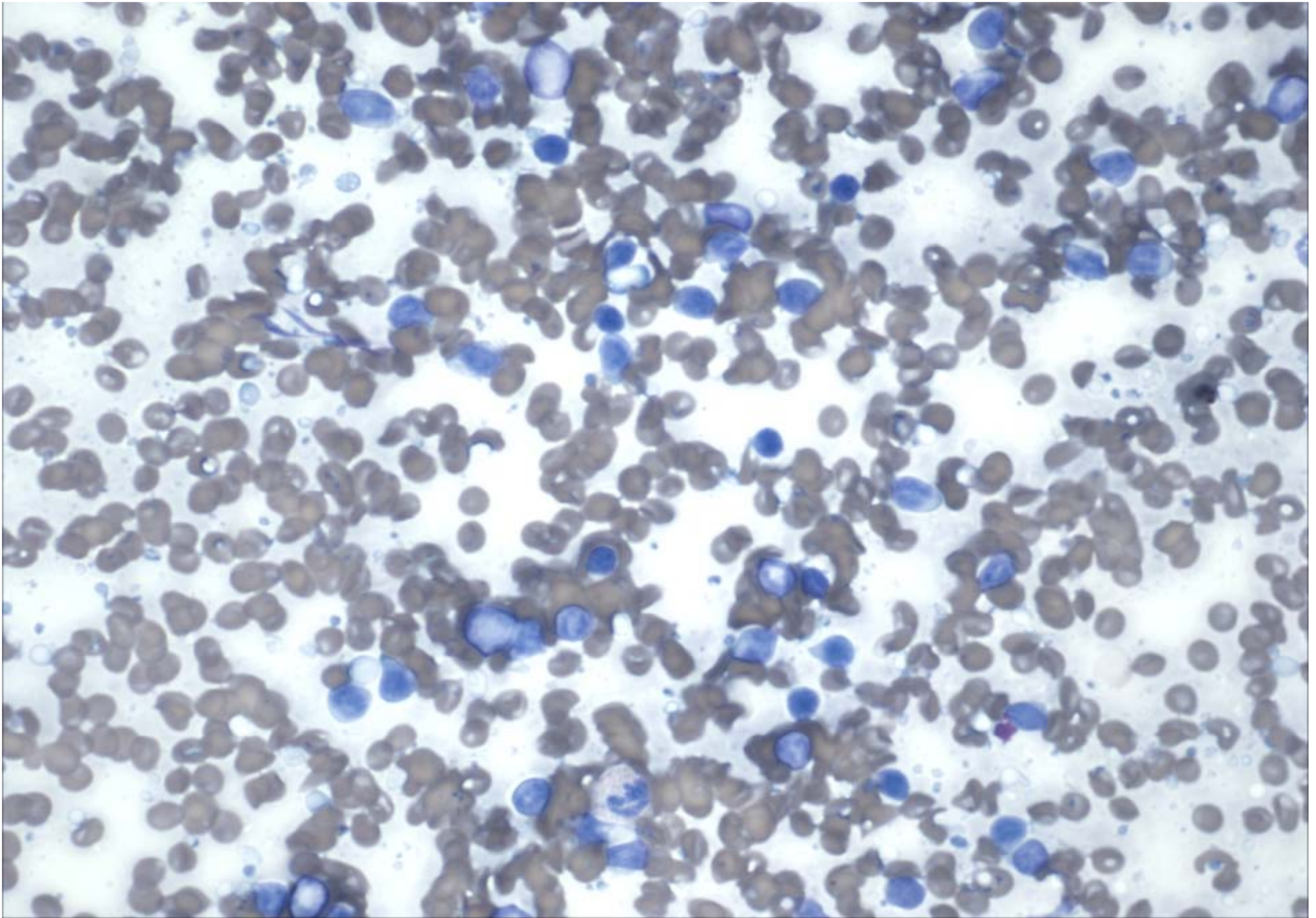
# History

- 43 year old female present with bilateral thyroid nodules on routine US examination
- The patient was asymptomatic
- Past history: a long standing history of Hashimoto's thyroiditis with hypothyroidism
- Medication: Synthroid 30 mg qd
- Physical examination: Normal thyroid without palpable masses; no cervical adenopathy
- US thyroid: 1.2 cm nodule on the left side and 1 cm nodule on the right side
- FNA was performed on both nodules
- The following images were from the left nodules
- The right nodules showed similar cytologic and Flow cytometry findings

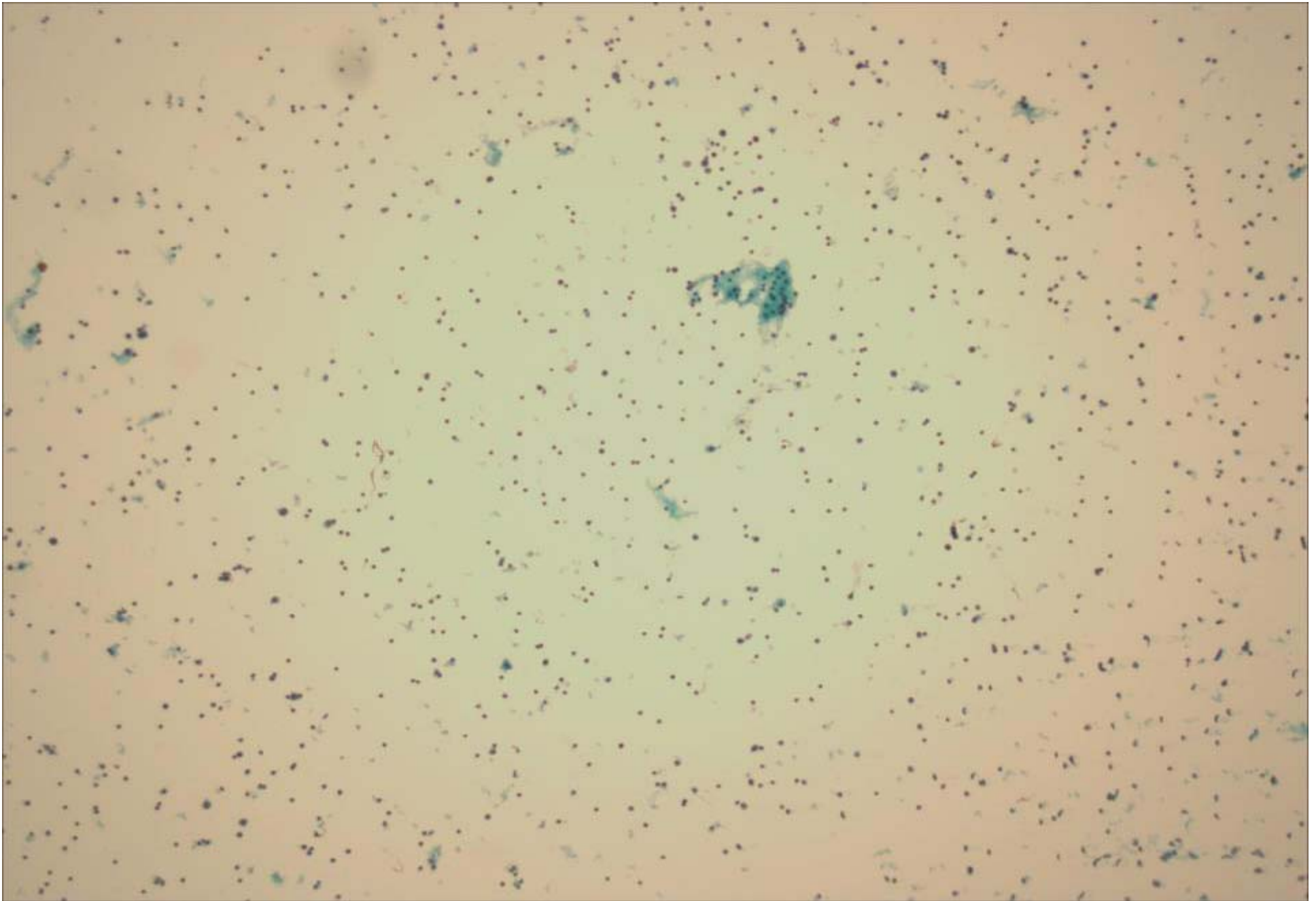




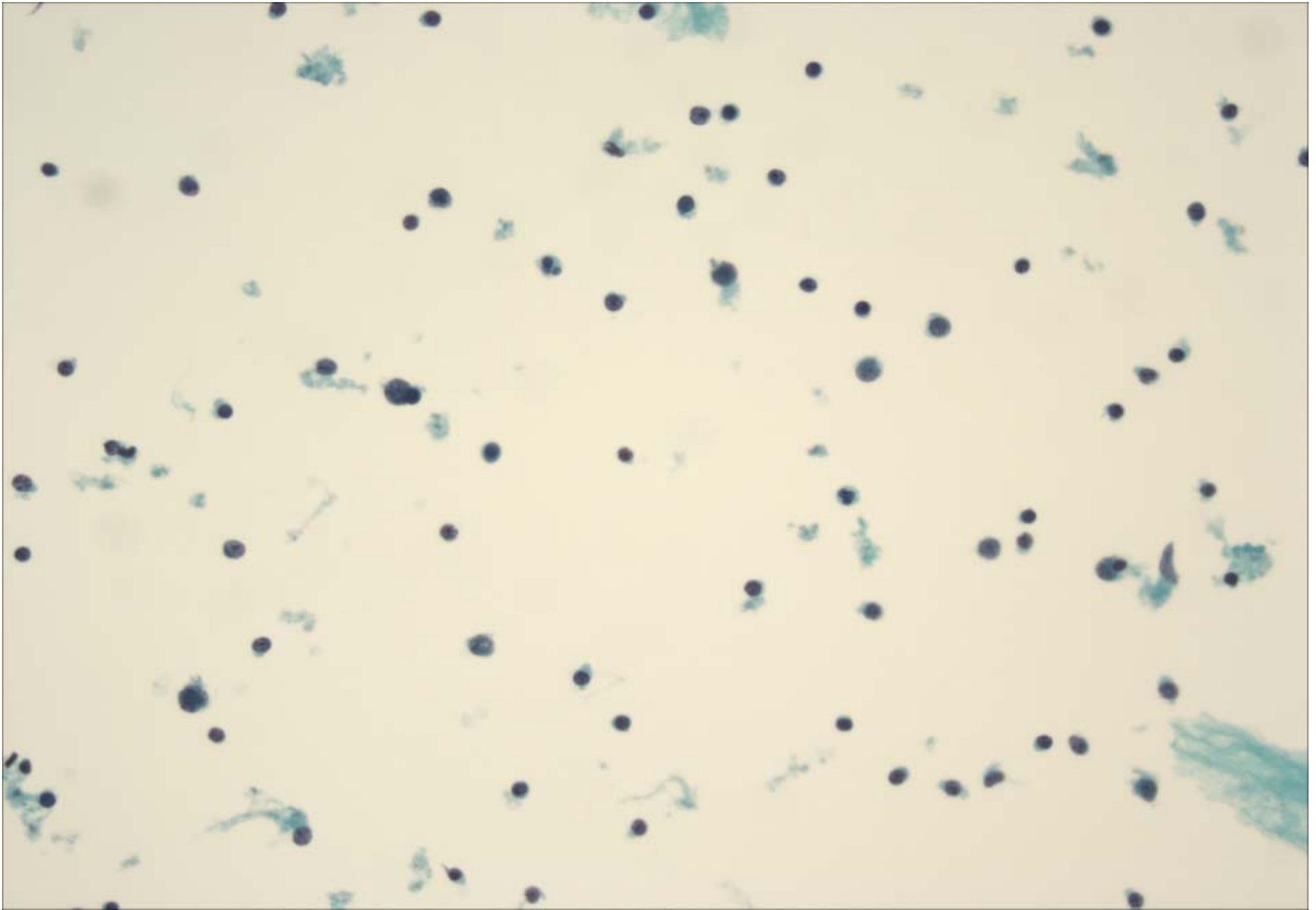
Direct smear, Diff Quik stain, x200



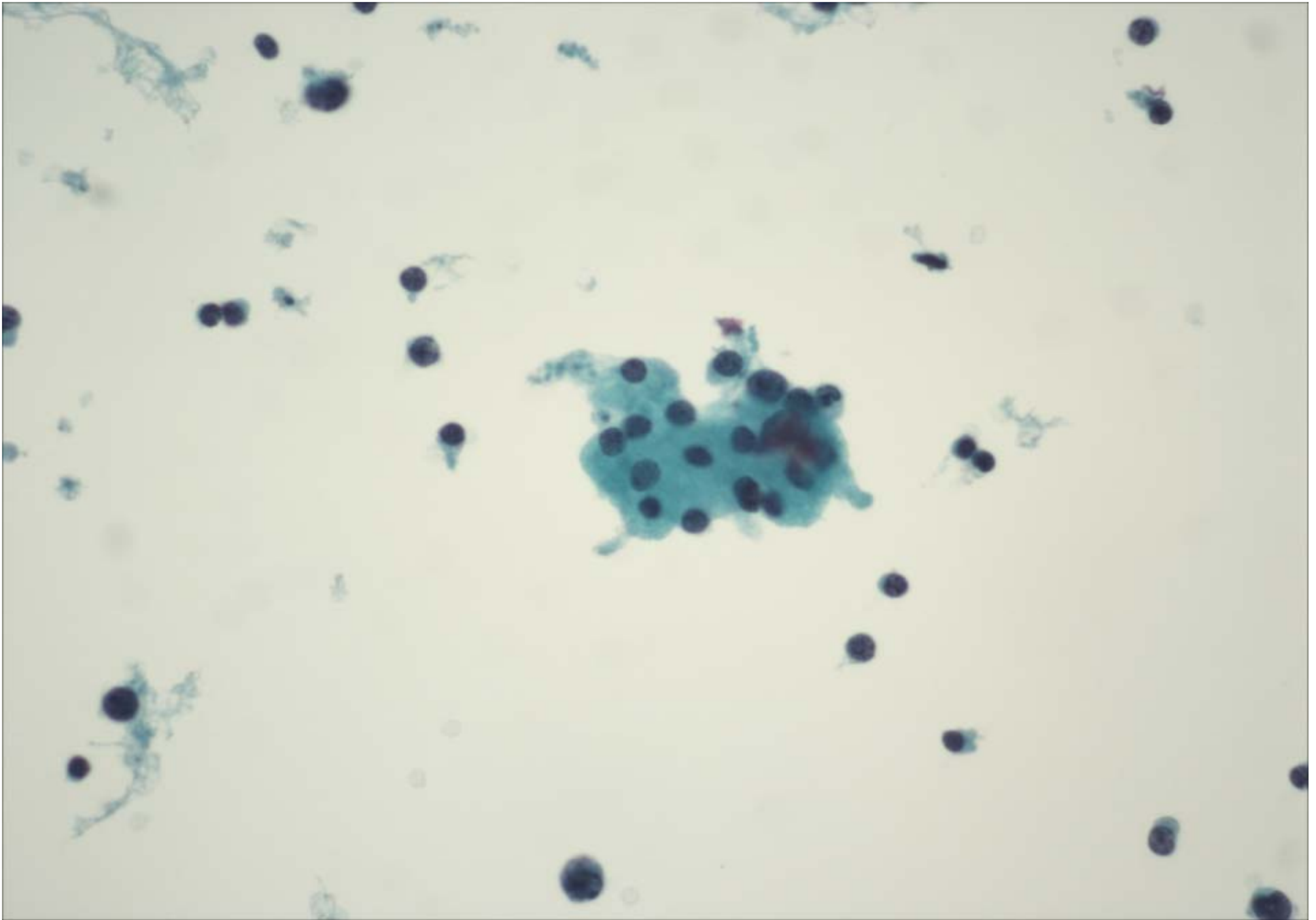
Direct Smear, Diff Quik stain, x600



ThinPrep preparation, Papanicolaou stain, x100

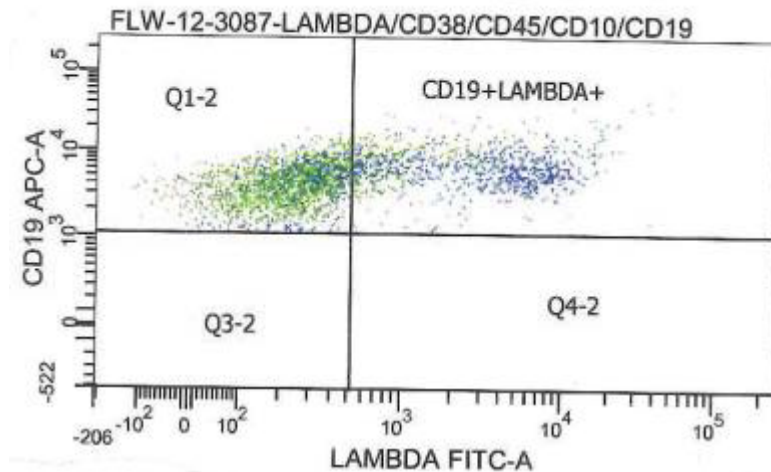
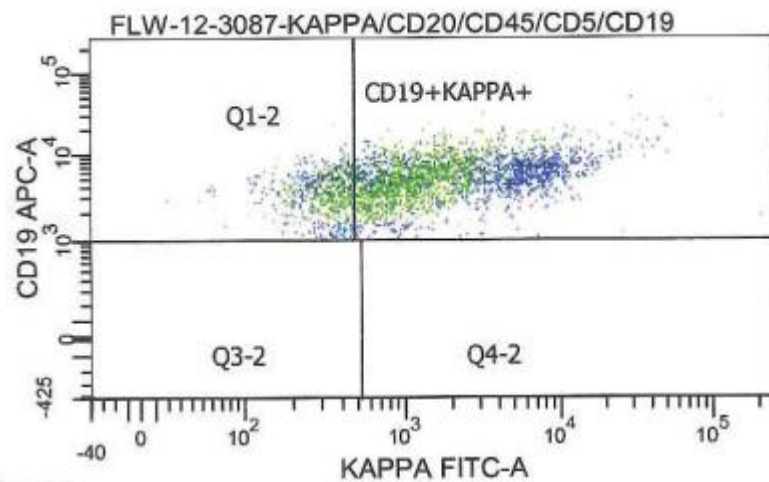
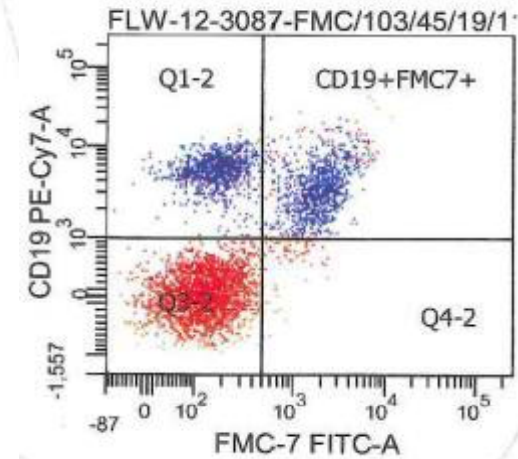
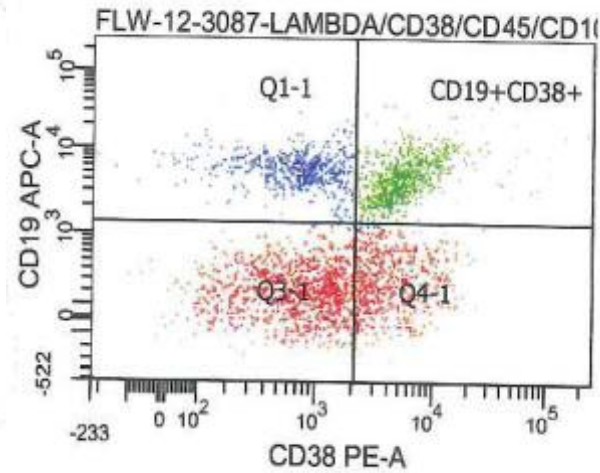
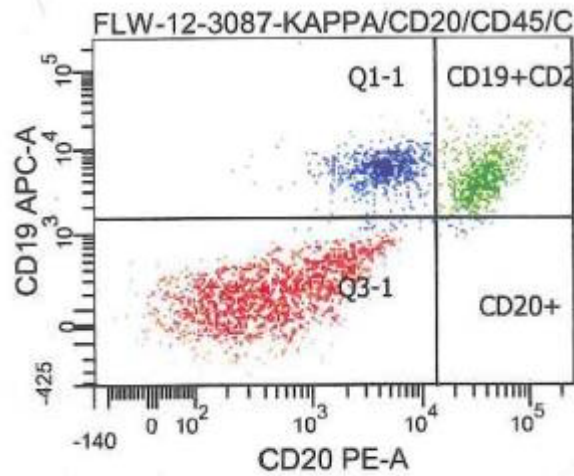


ThinPrep preparation, Papanicolaou stain, x400



ThinPrep preparation, Papanicolaou stain, x600

# Flow cytometry results preformed on FNA specimen from the L nodule



Diagnosis?

# CASE 5

*Assist. Prof. Ika Kardum-Skelin, MD, PhD*

*Department of Clinical Cytology and Cytogenetics, Merkur University Hospital*

*University of Zagreb, School of Medicine, Zagreb, Croatia*



# CASE HISTORY

IN APRIL  
2012, THE 11  
YEAR OLD  
BOY  
PRESENTED  
WITH

- vomiting, which lasts three weeks
- fatigue
- fever (38.2<sup>0</sup> C)
- without night sweats or pain

# CLINICAL FINDINGS

## PHYSICAL EXAMINATION

- pale
- exhausted
- palpable lymph node in the right axilla
- the abdomen above the chest, tense and painful on palpation

# IMAGING

## LUNG X-RAY

- bilateral pleural effusion, without signs of secondary foci in lungs

## ULTRASOUND (US) AND COMPUTED TOMOGRAPHY (CT) OF THE ABDOMEN

- tumor mass in the retroperitoneum with thrombosis of the inferior vena cava
- ascites

## MAGNETIC RESONANCE IMAGING (MRI)

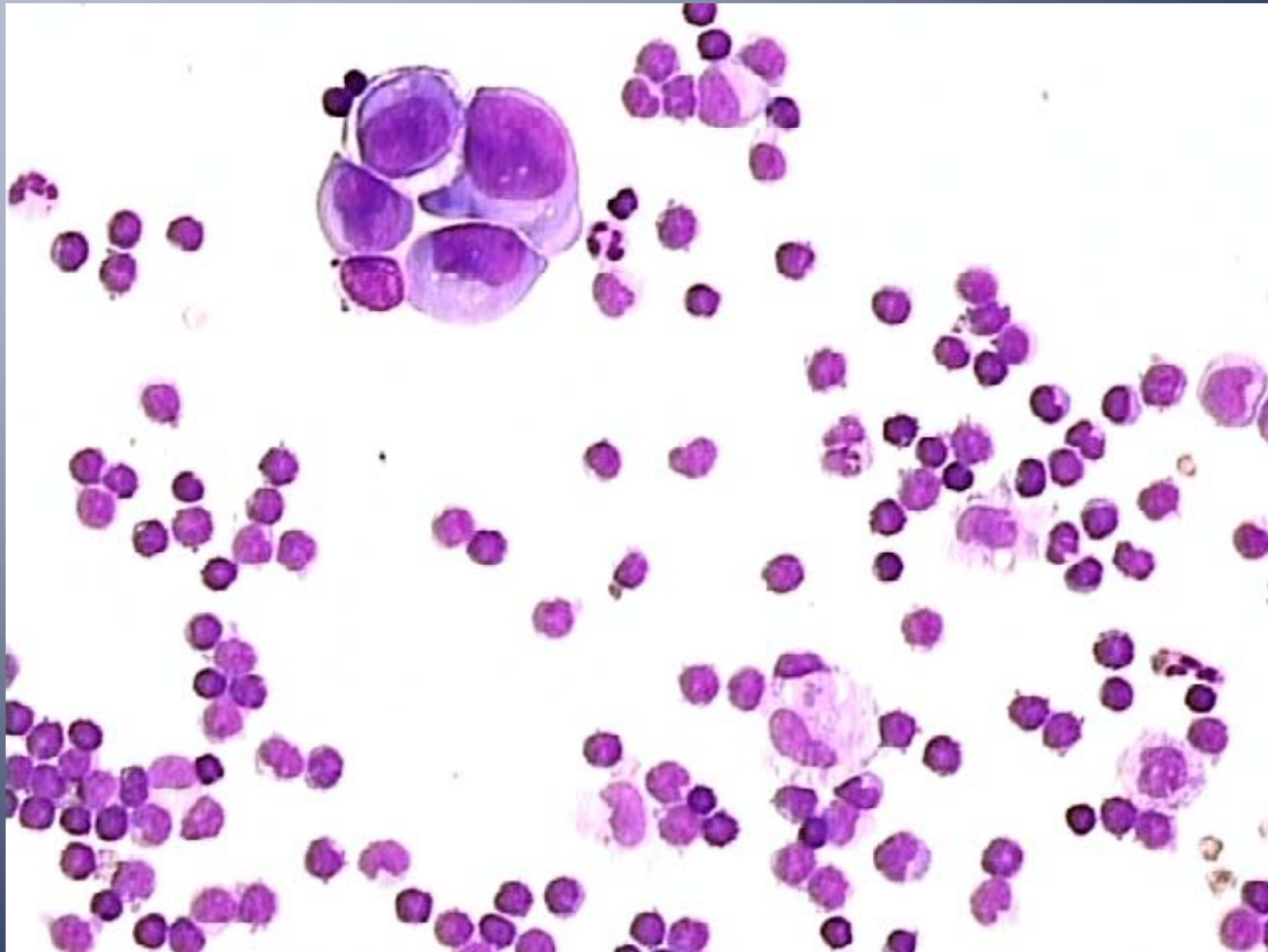
- secondary focal areas of the hypothalamus – pituitary

FOLLOW UP

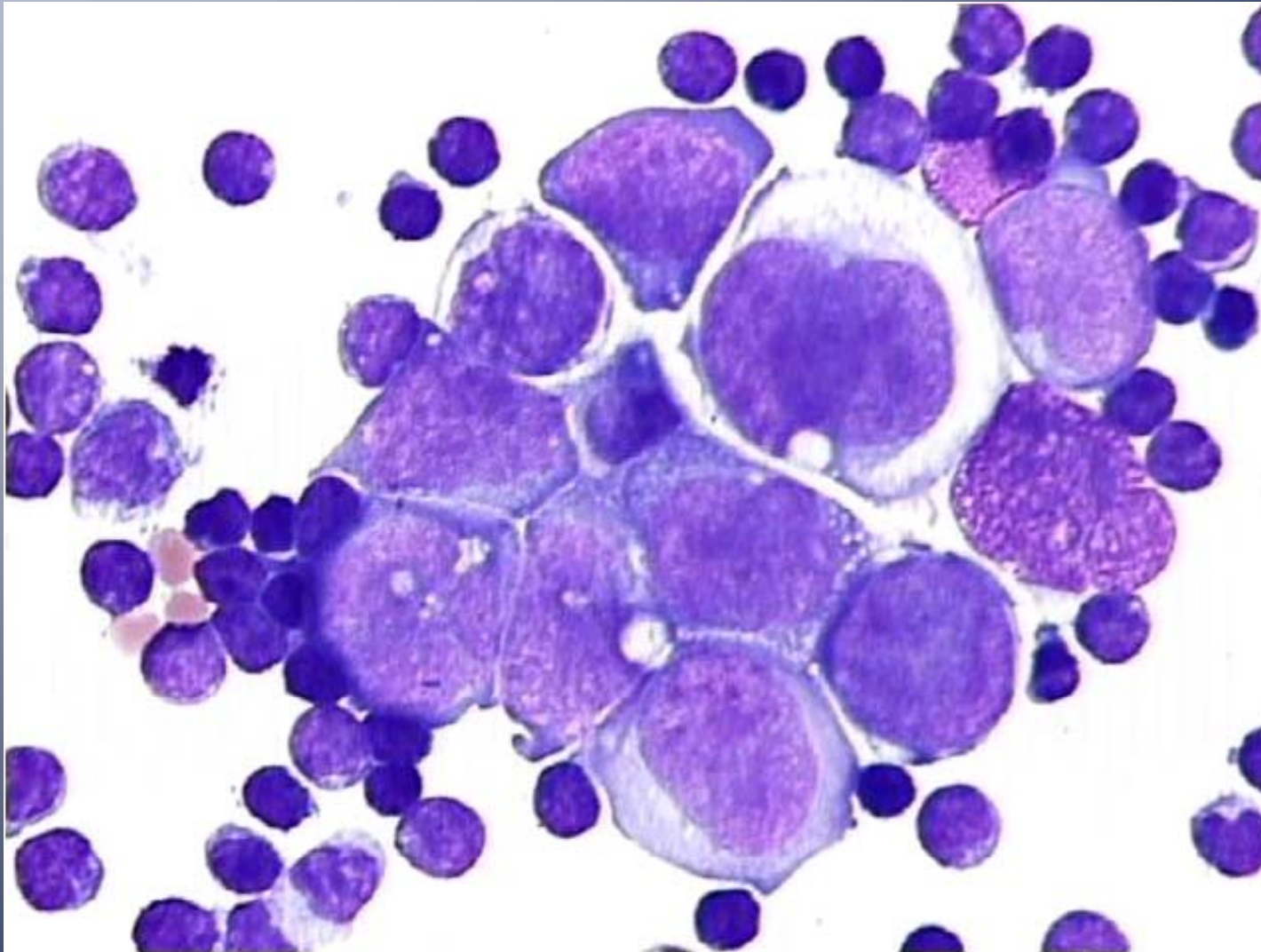
CENTRAL DIABETES INSIPIDUS DEVELOPED

FINE NEEDLE ASPIRATION CYTOLOGY (FNAC) OF  
ASCITIC FLUID WAS PERFORMED

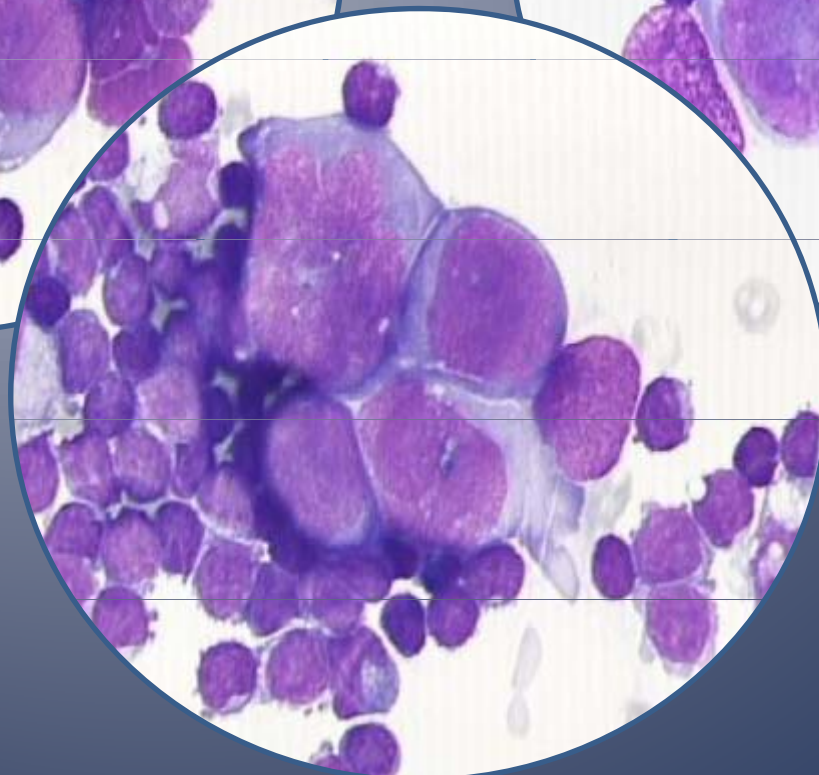
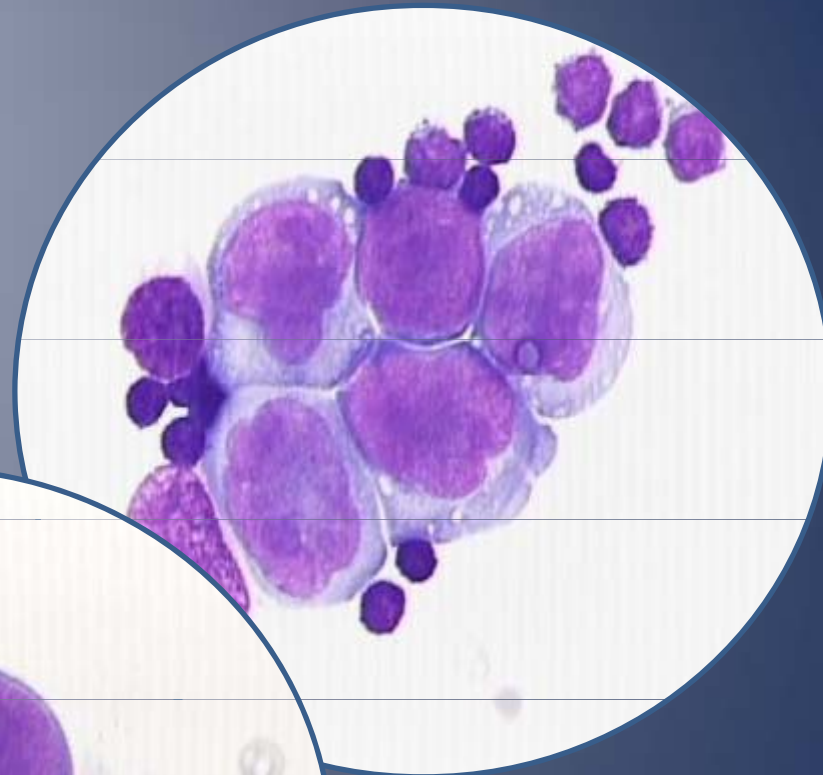
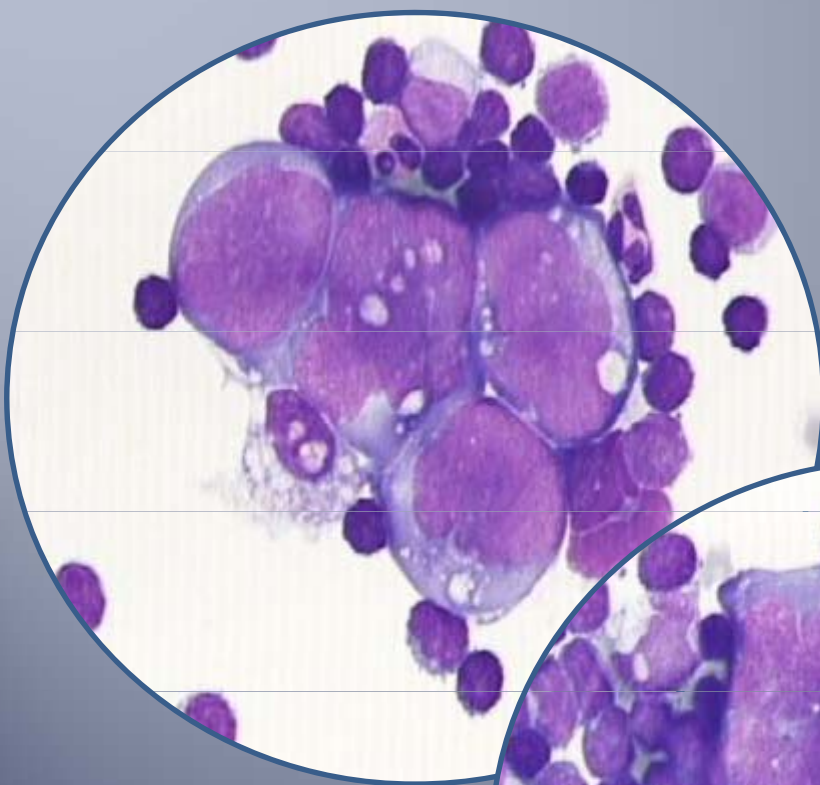
# FNAC OF ASCITIC FLUID (5-1)



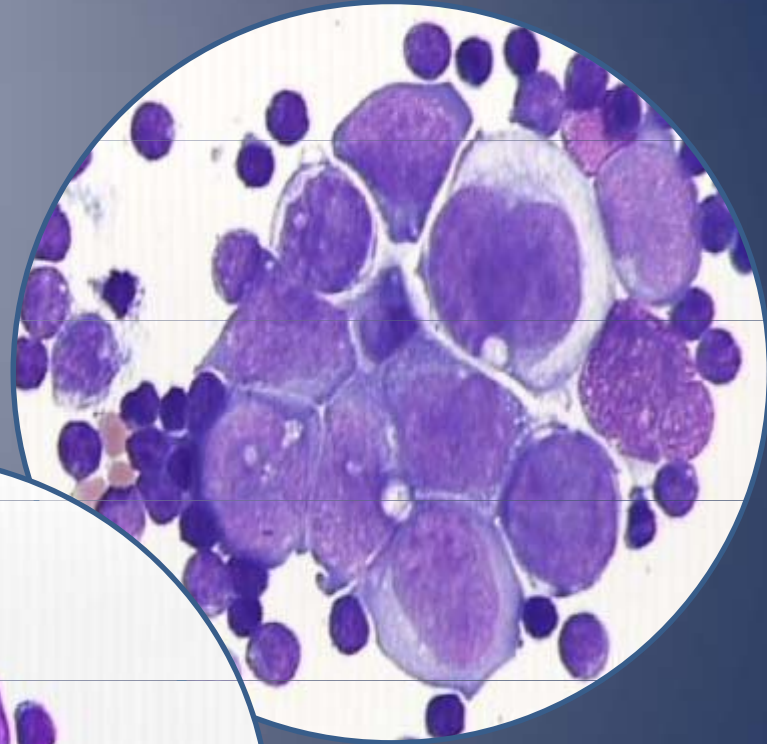
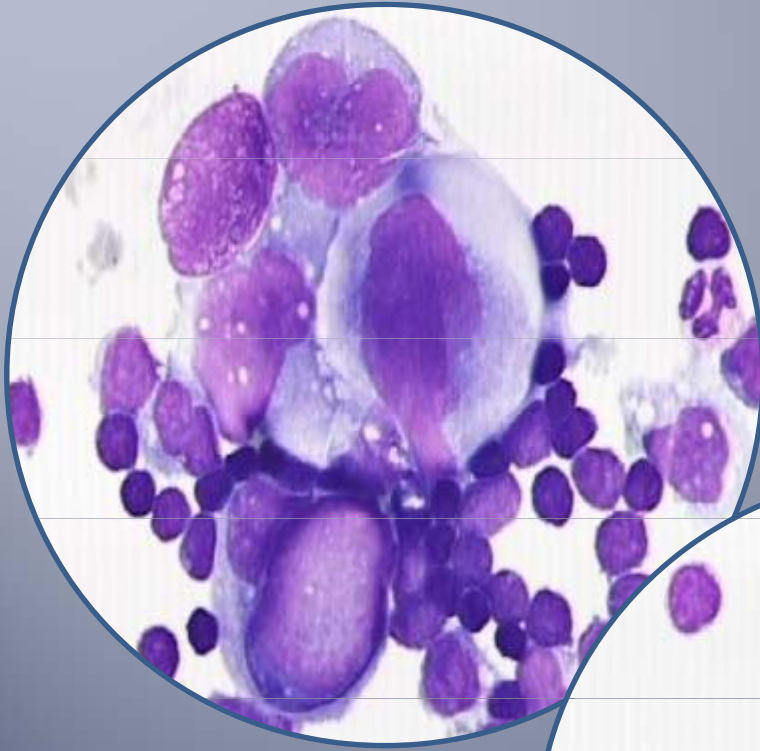
## FNAC OF ASCITIC FLUID (5-2)



## FNAC OF ASCITIC FLUID (5-3)

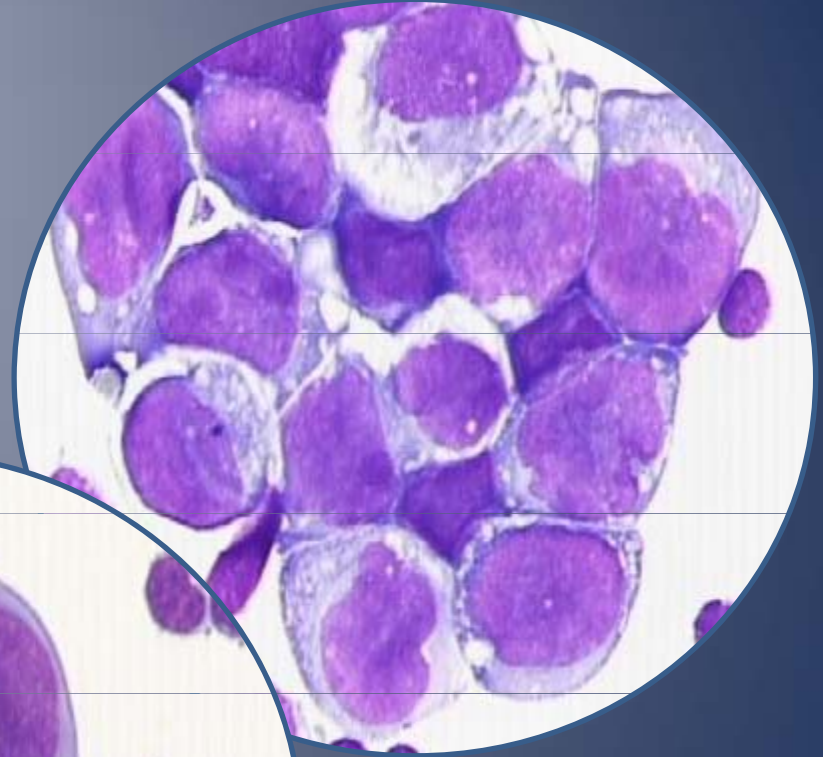
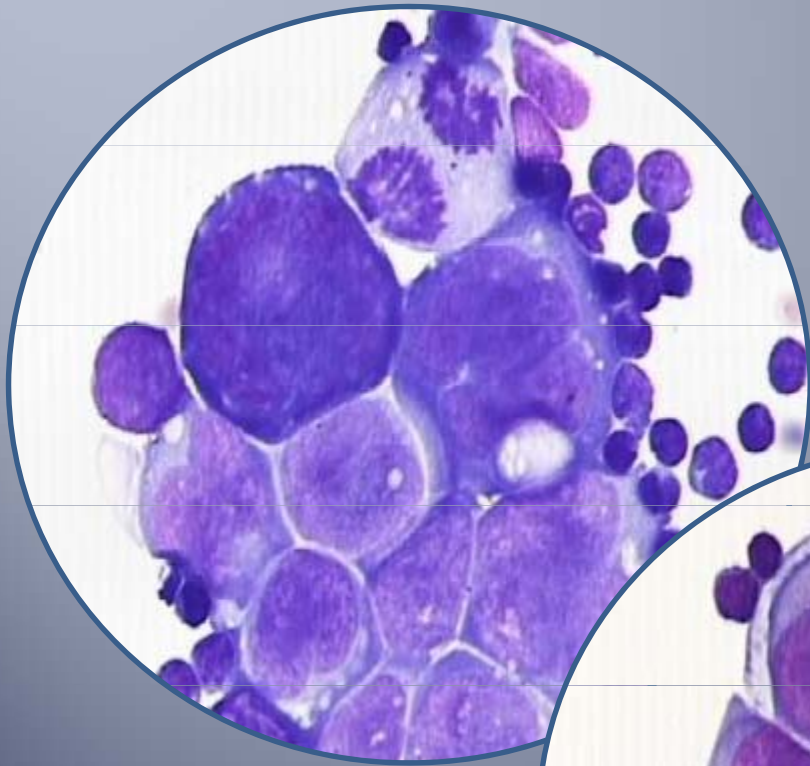


## FNAC OF ASCITIC FLUID (5-4)

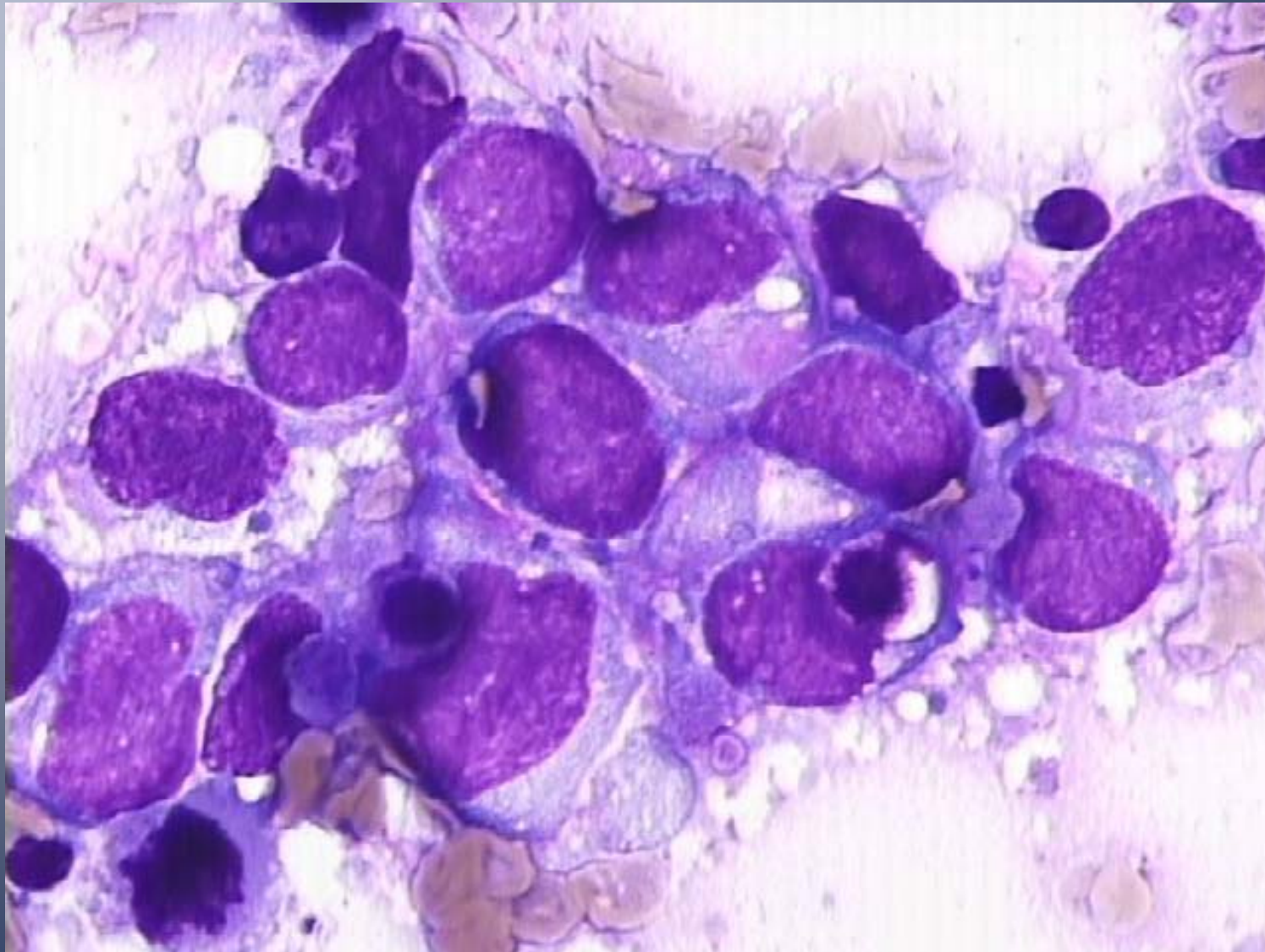




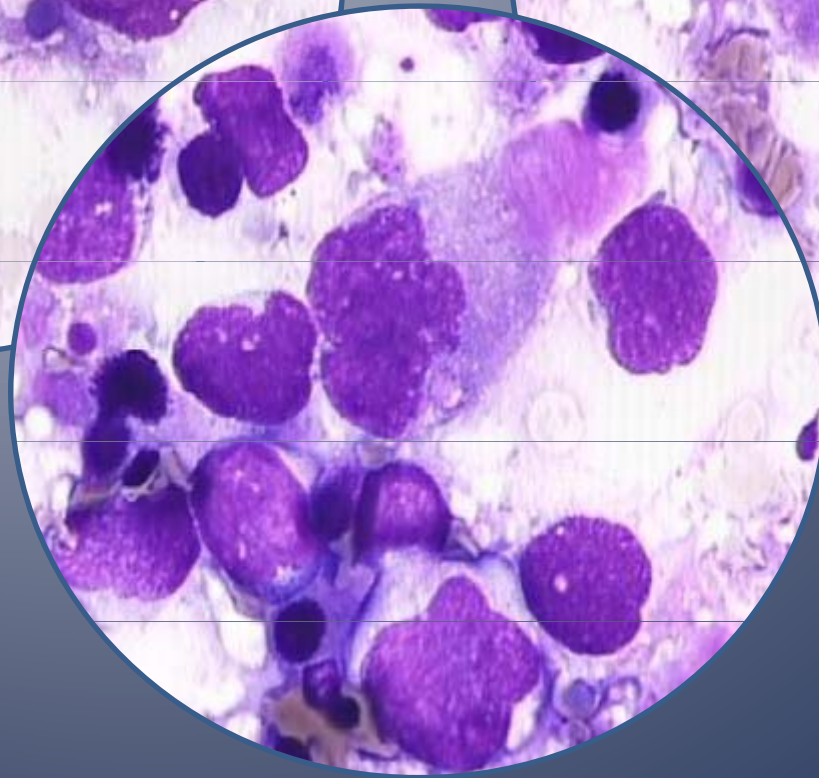
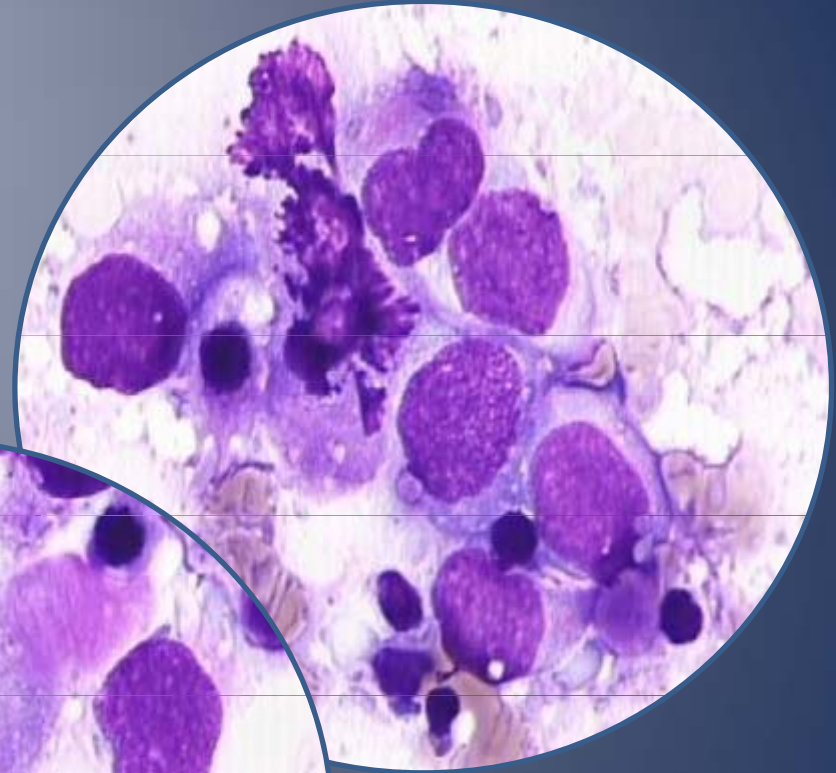
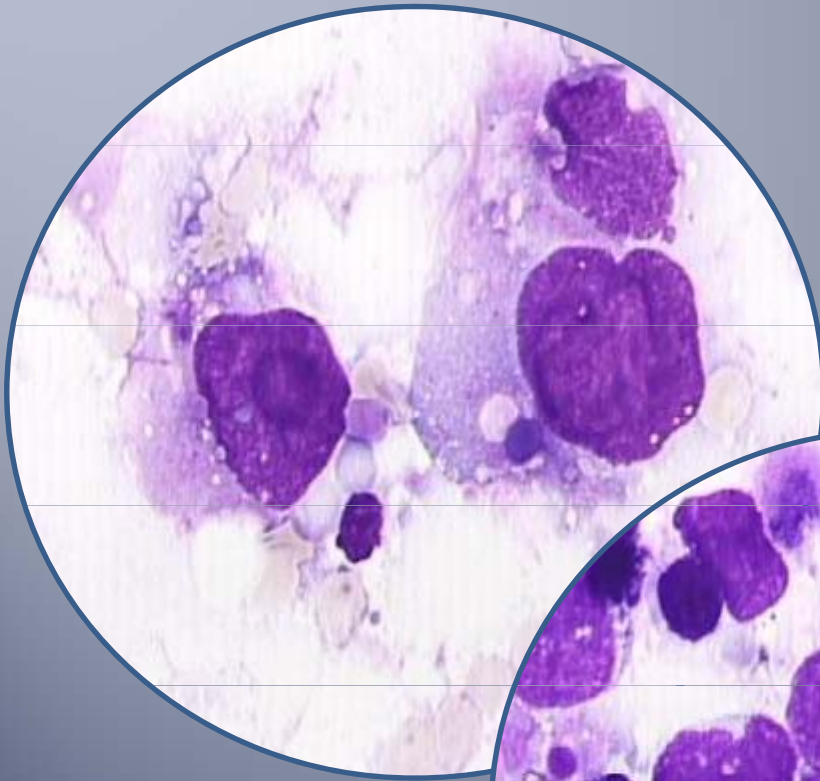
## FNAC OF ASCITIC FLUID (5-5)



## FNAC OF AXILLARY LYMPH NODE (5-6)



## FNAC OF AXILLARY LYMPH NODE (5-7)



**DIAGNOSIS**

**?**