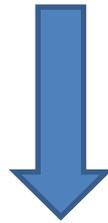


# Female, 16 yo

Severe cephalgia, vertical diplopia,  
nausea since 6 days



**Neurological examination:**

partial deficit of the third pair of cranial nerve  
ptosis and diplopia

**Endocrinological examination:**

hypocorticism  
hypothyroidism.

**IRM :**

2.7 cm sellar mass

# Clinical questions

Hypophysary apoplexia?

Craniopharingioma?

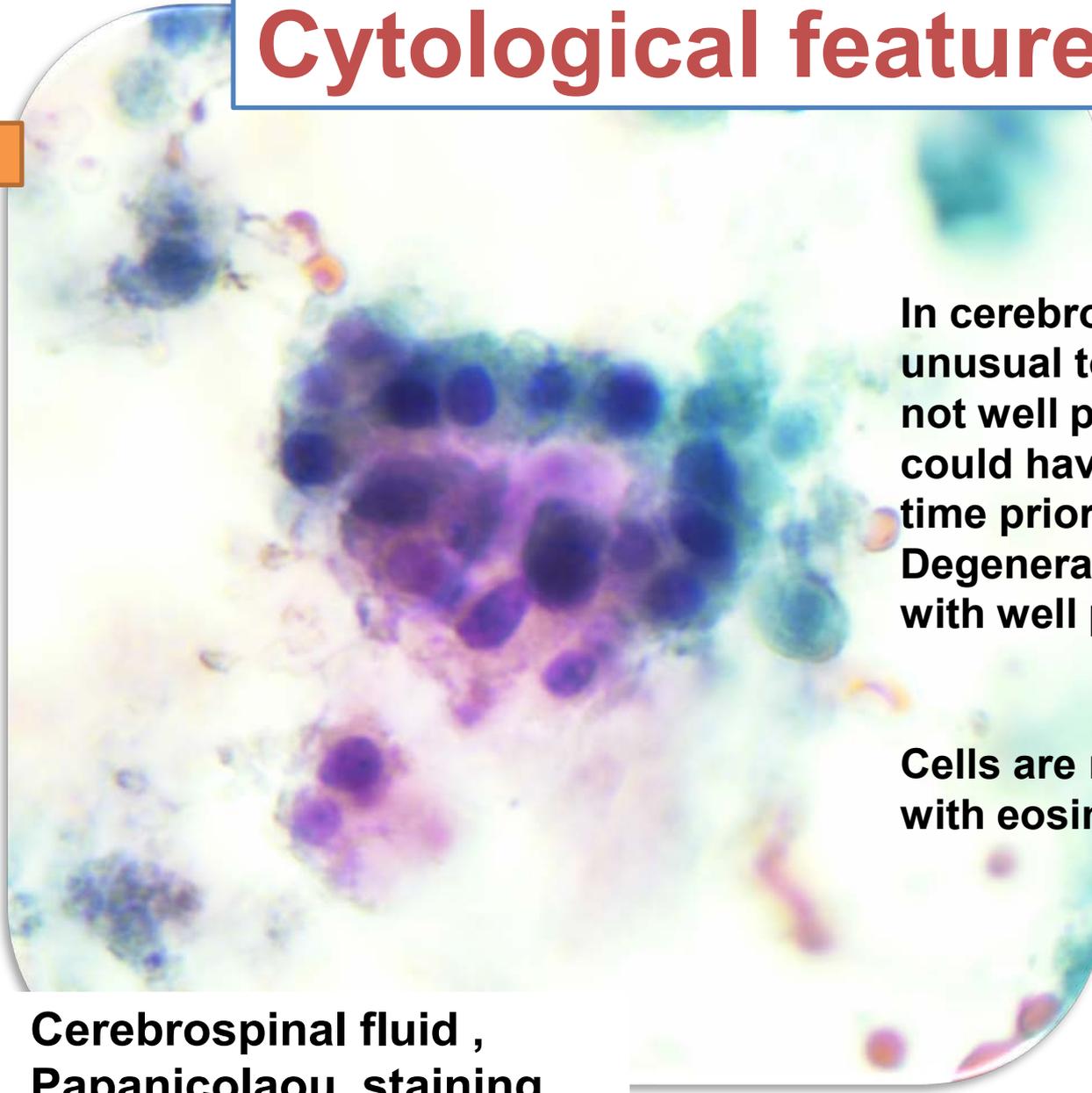


**Cerebrospinal fluid and resection of the mass**

# Cytological features

# Cytological features

20x



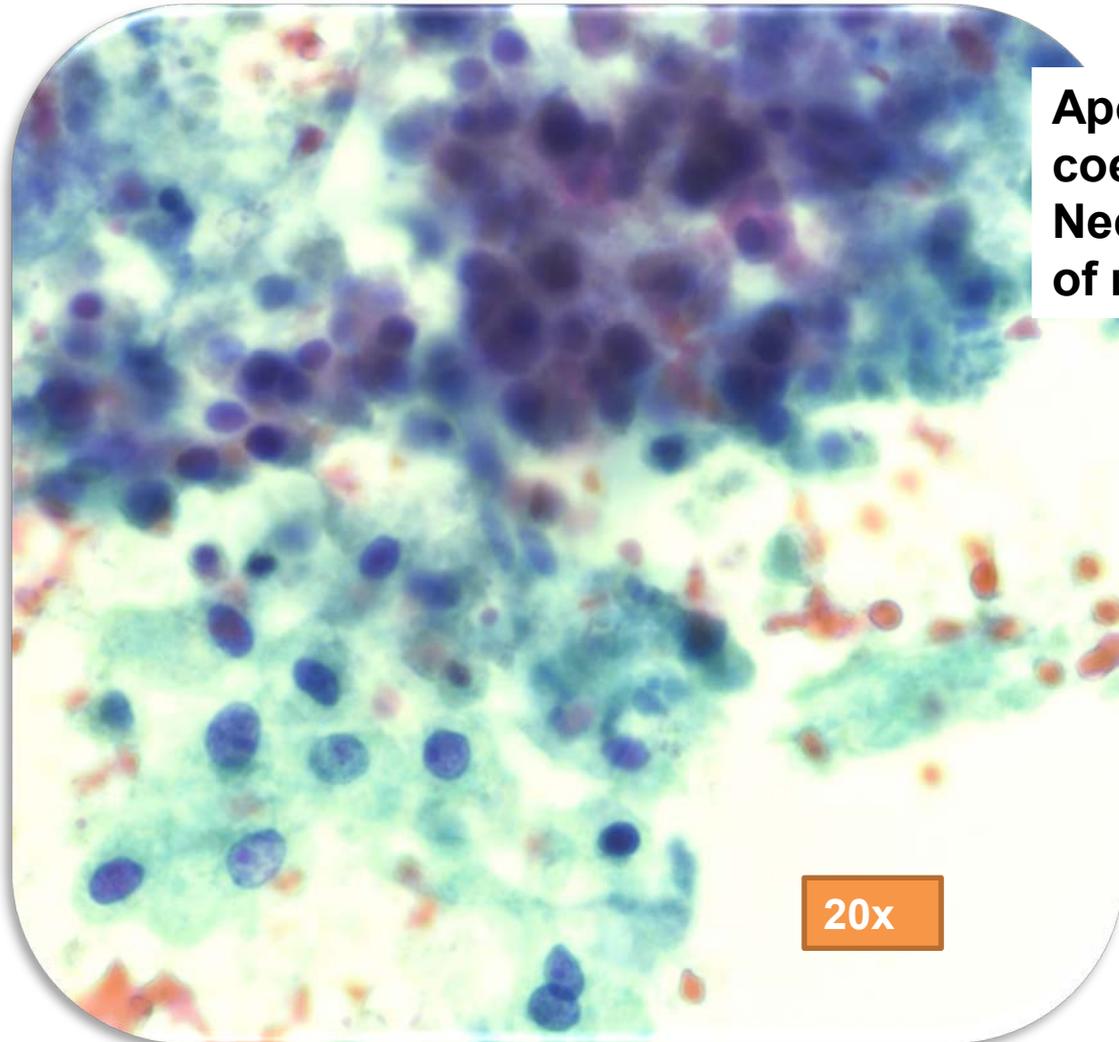
In cerebrospinal fluids, is it not unusual to find cells that are not well preserved, as they could have desquamated long time prior the aspiration. Degenerated cells are admixed with well preserved ones.

Cells are round and polygonal with eosinophilic cytoplasm.

**Cerebrospinal fluid ,  
Papanicolaou staining**

# Cytological features

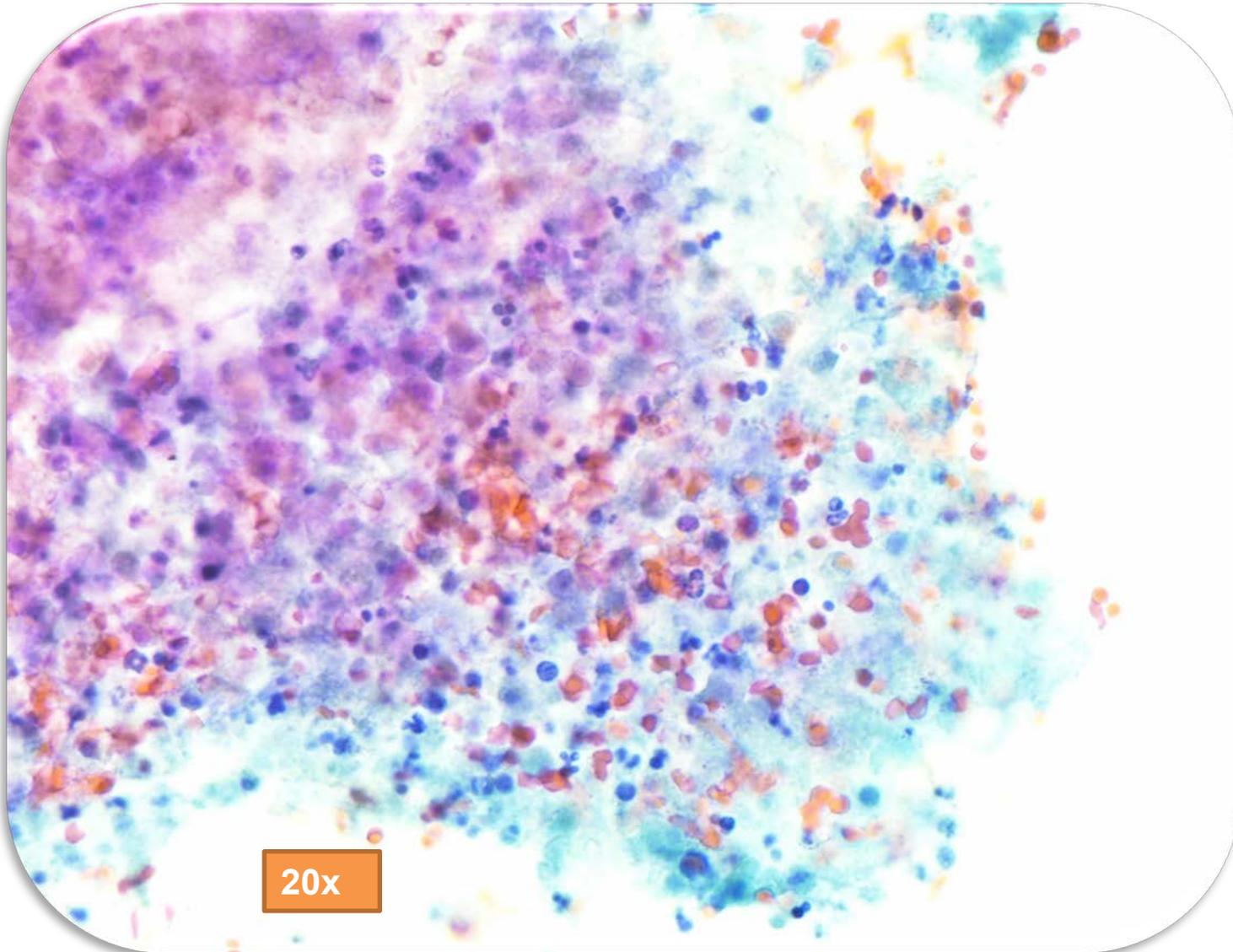
**Cerebrospinal fluid ,  
Papanicolaou staining**



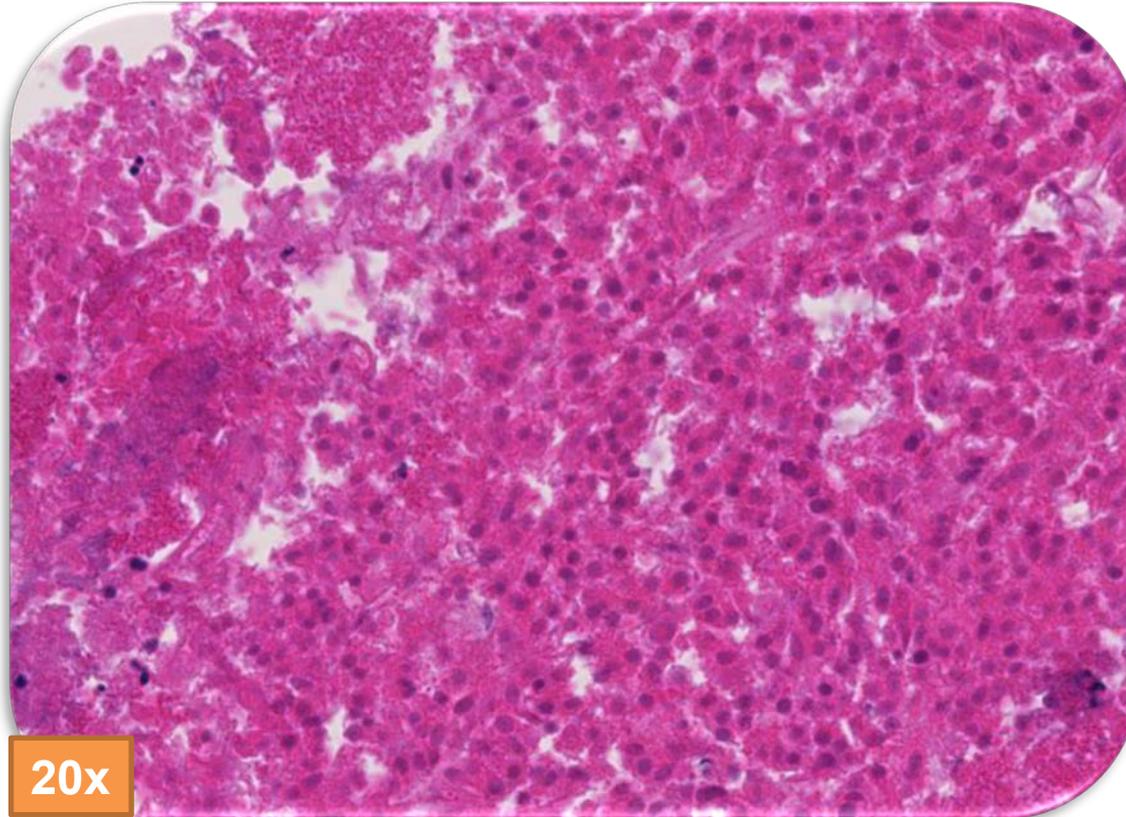
**Apoptotic figures and necrosis coexist with well preserved cells. Necrosis in this case is not a sign of malignancy.**

20x

# Cytological features



# Cell block, H&E



**The same mixed population of degenerated and well-preserved cells are visible on the cell block preparation.  
Cells have a monotonous pattern.**

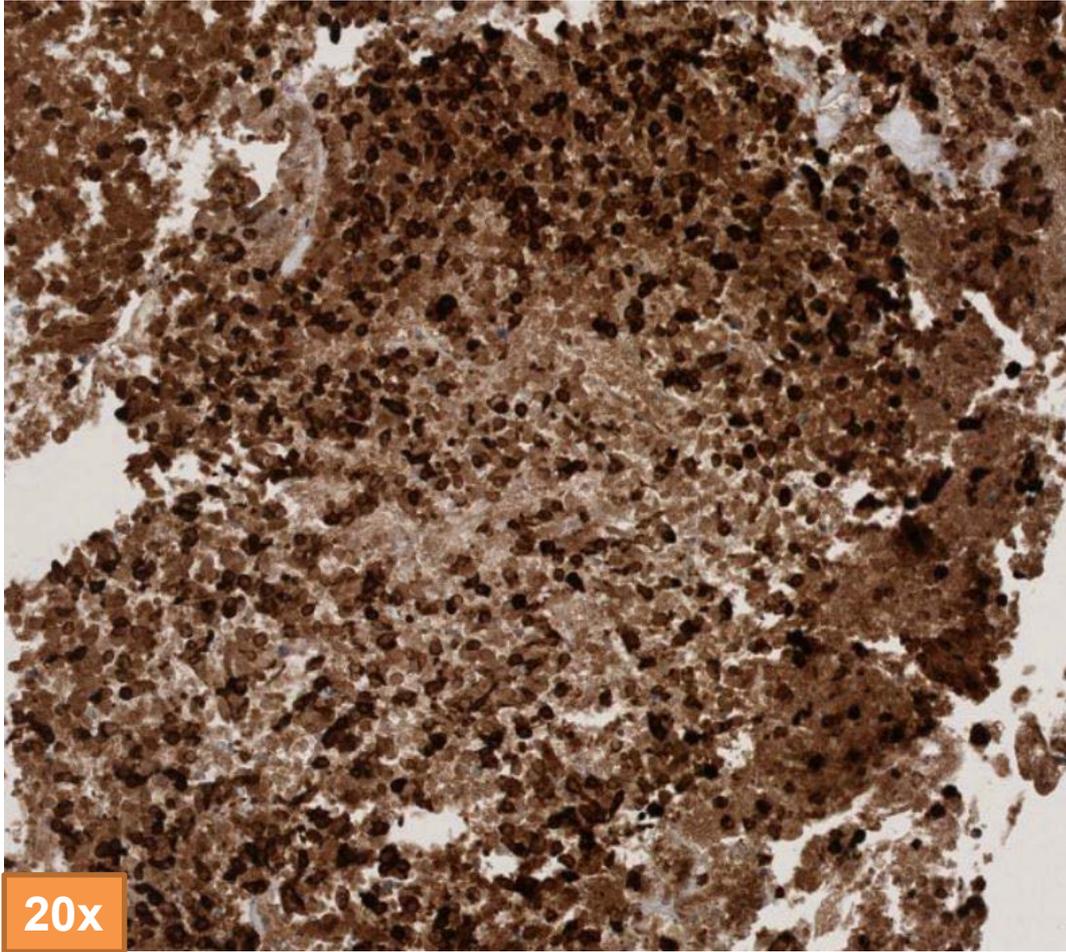
# Cell block, H&E

40x



# Immunocytochemistry

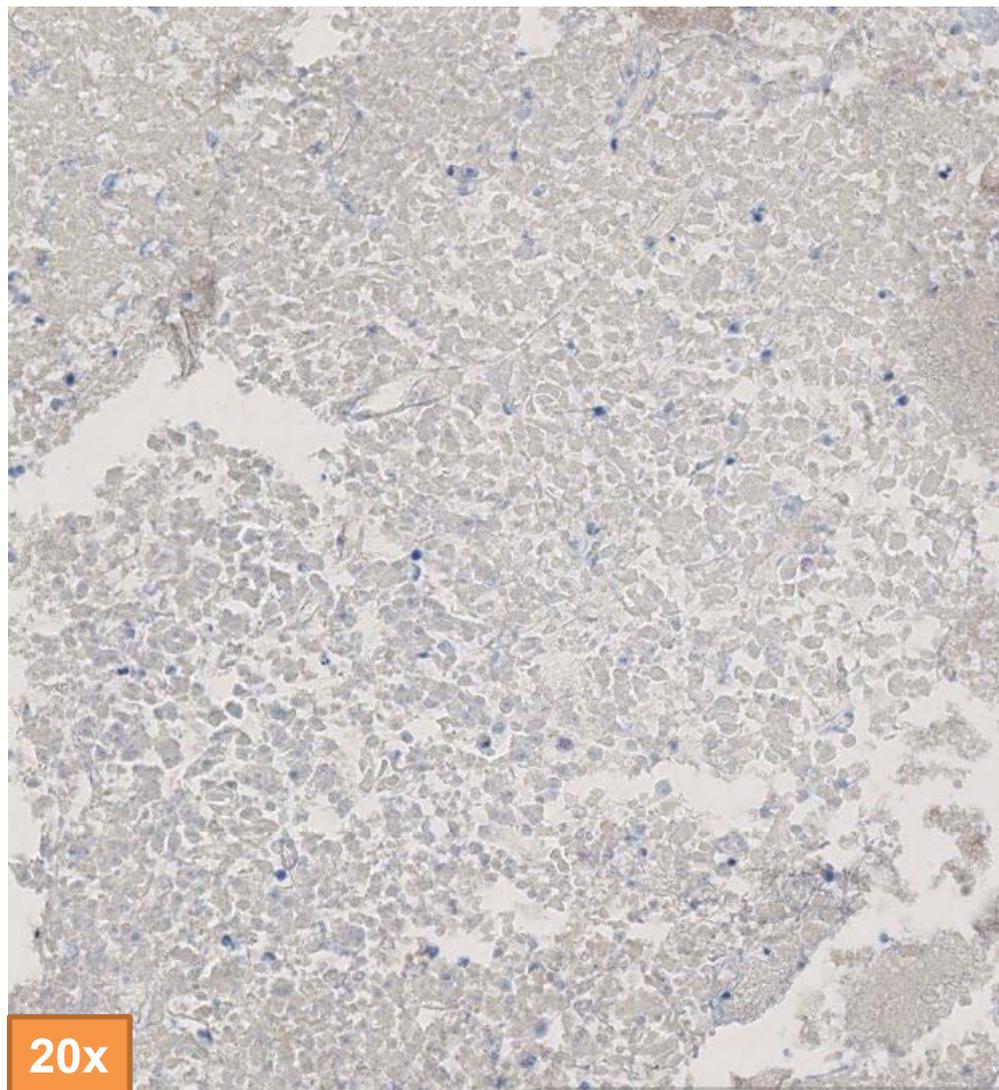
GH



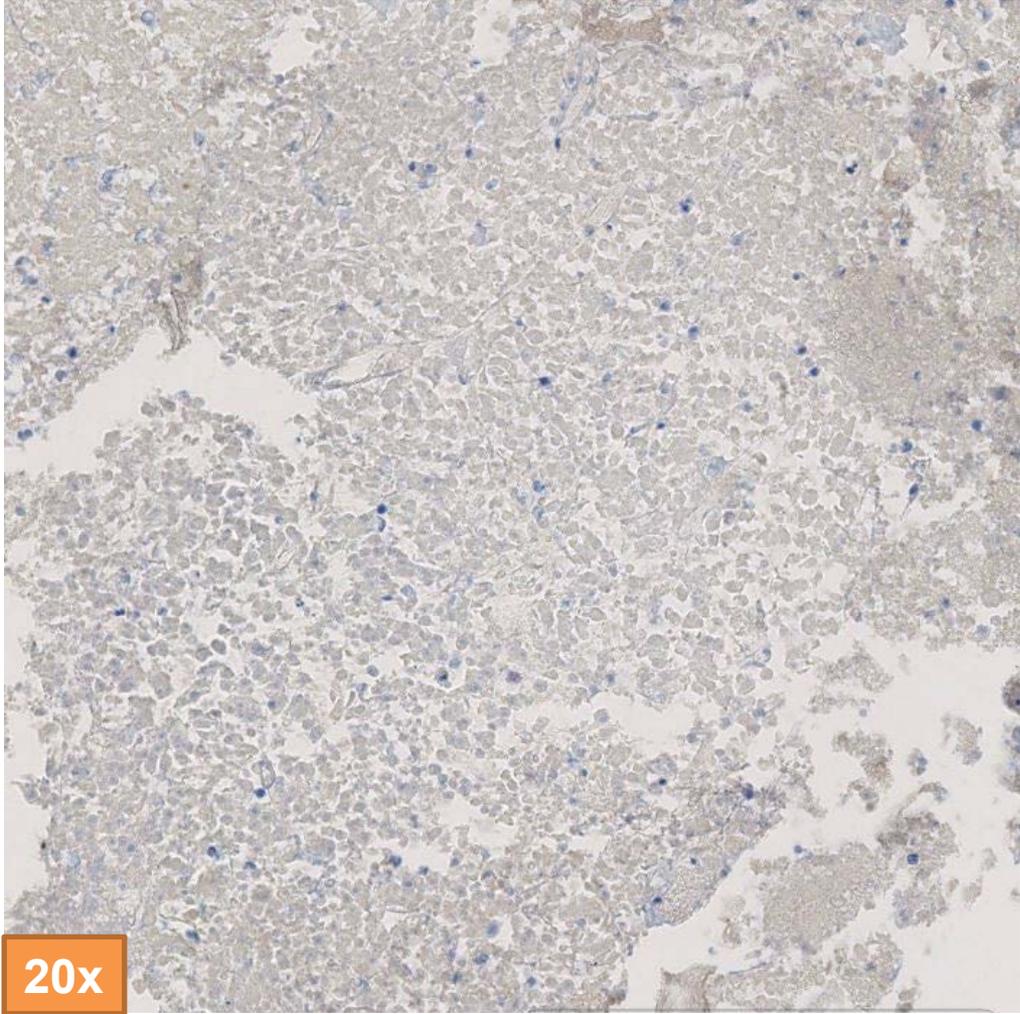
# Prolactin



# MIB-1



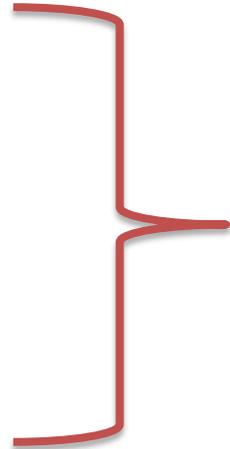
p53



20x

# Other markers

- LH
- TSH
- ACTH
- HCG



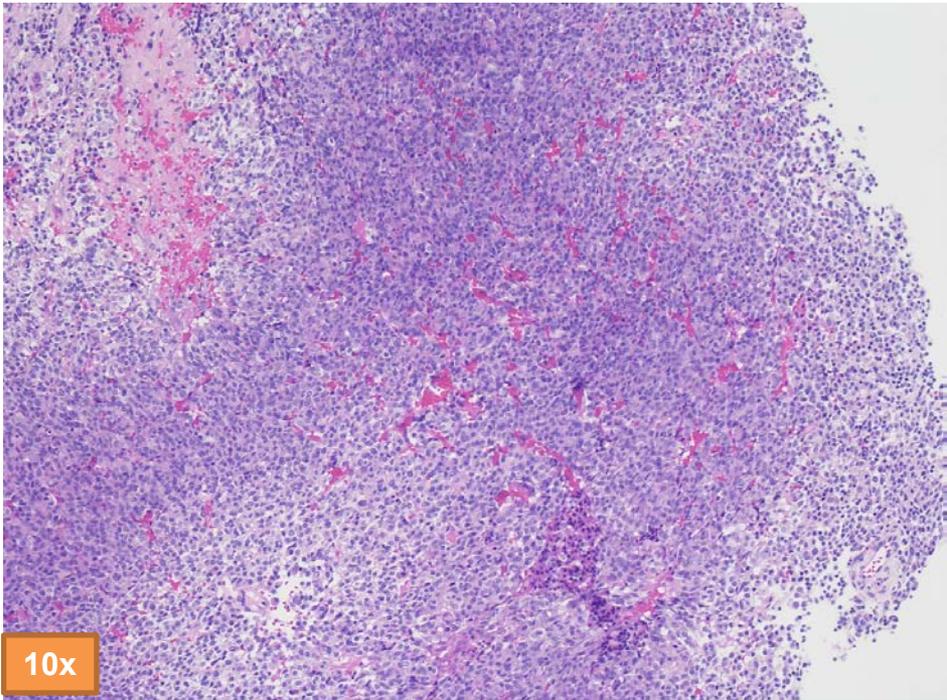
**negative**

# Cytological diagnosis

**Cerebrospinal fluid infiltrated by an hypophyseal tumor with GH diffuse expression in immunocytochemistry.**

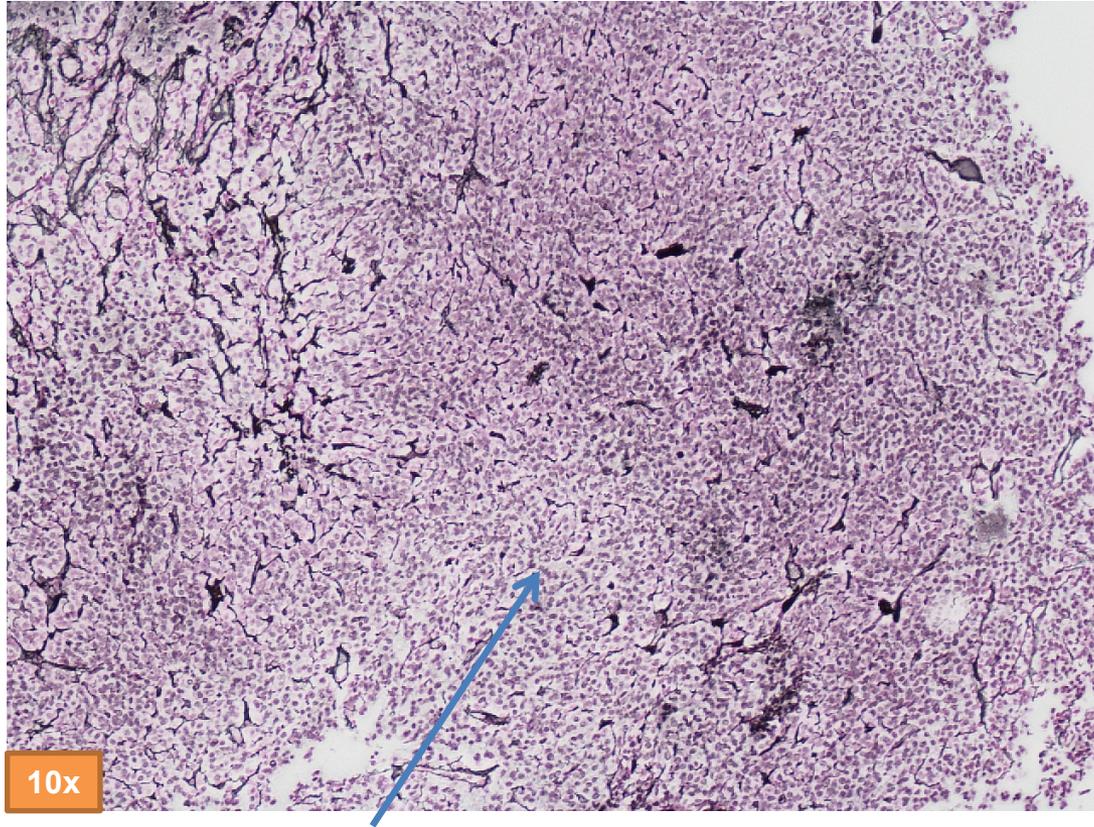
**Usually hypophyseal cystic lesions are aspirated. In this case, the tumor cells were found directly in the CSF.**

# Histology



monomorphic expansion of cells  
with lack of reticulin network  
among neoplastic cells.

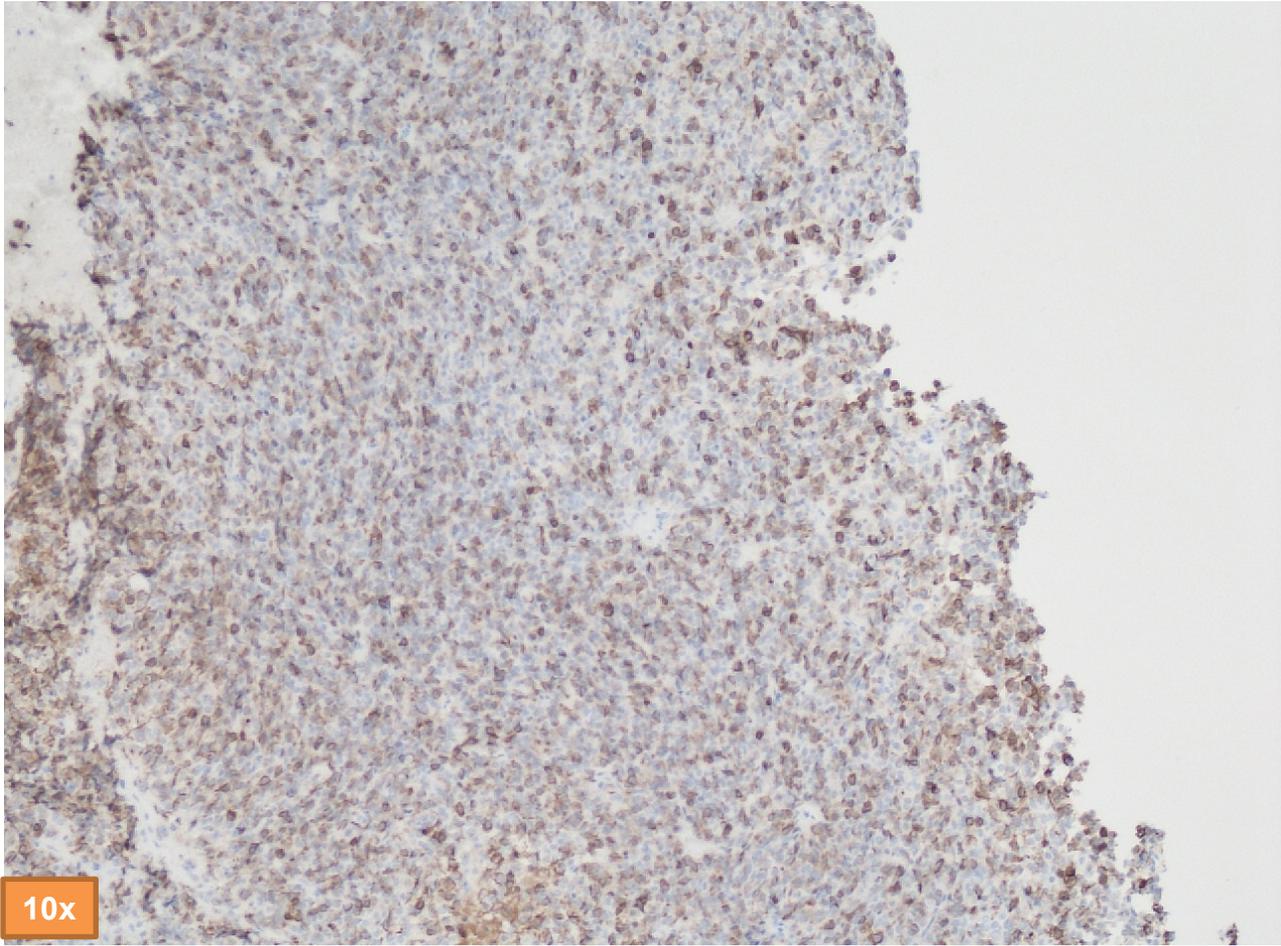
# Histology



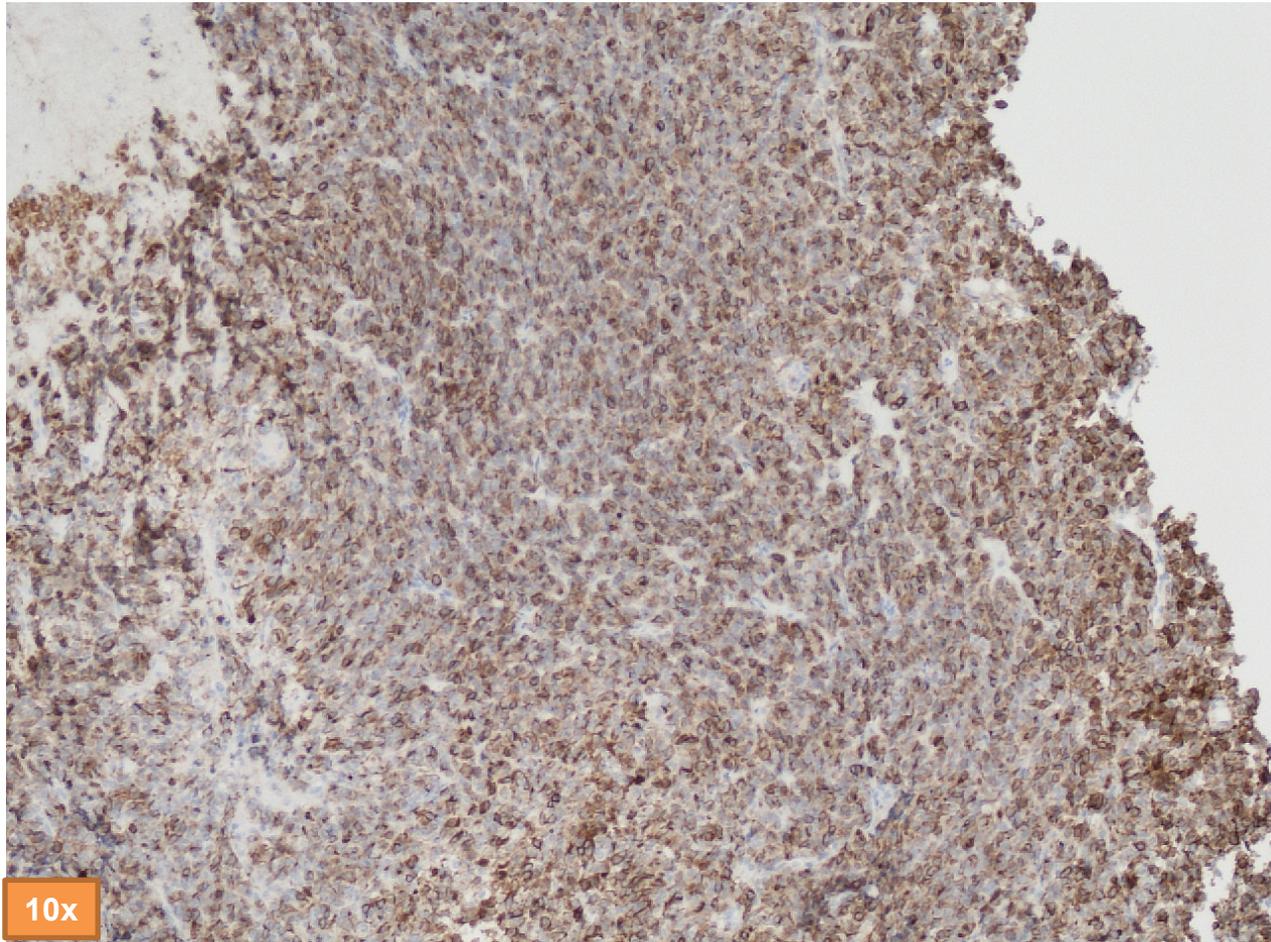
disruption of the normal  
reticulin network in  
adenoma

# Immunohistochemistry

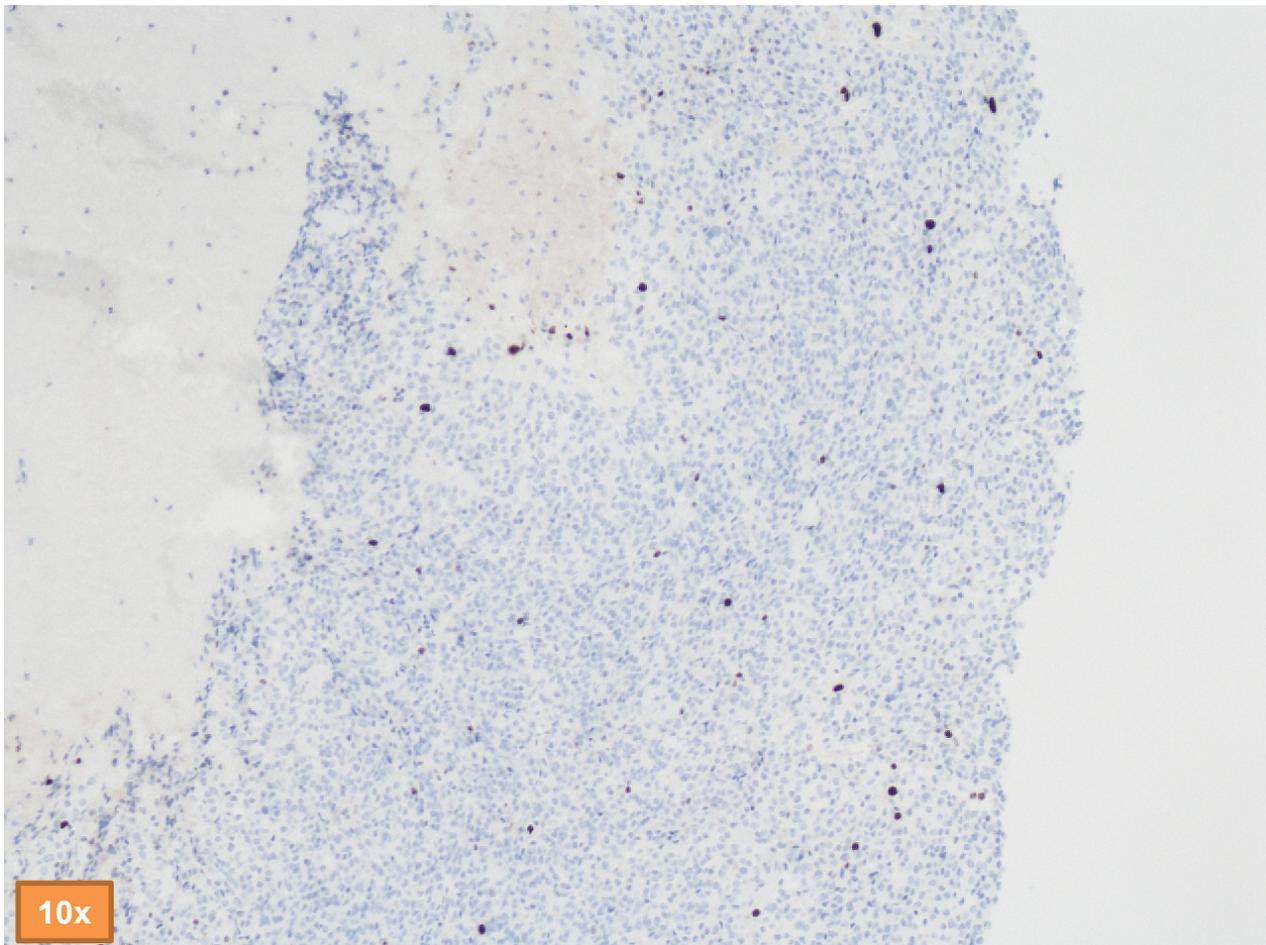
GH



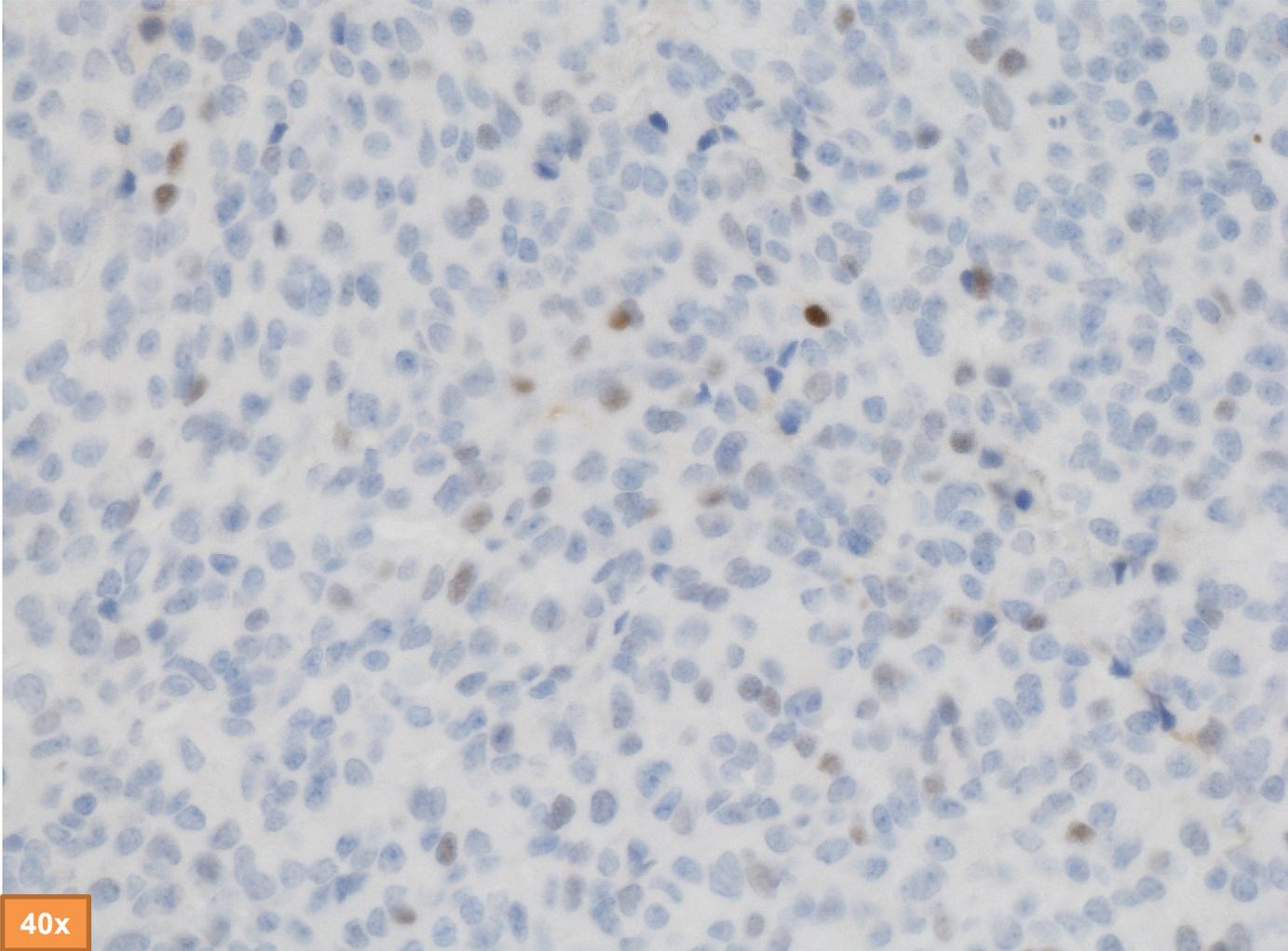
# Prolactin



**MIB-1: 2%**



# p53



<10 strongly positive cells in 10 HPF

40x

# Histological diagnosis

**Hypophyseal adenoma with GH diffuse expression in immunohistochemistry**