

Slide Seminar

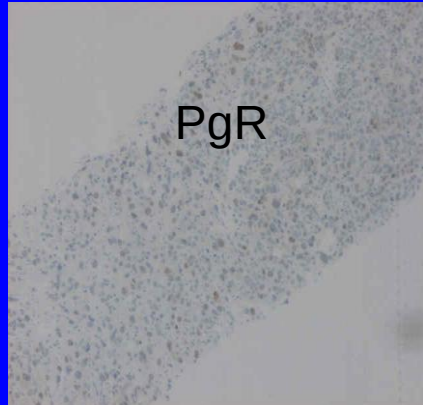
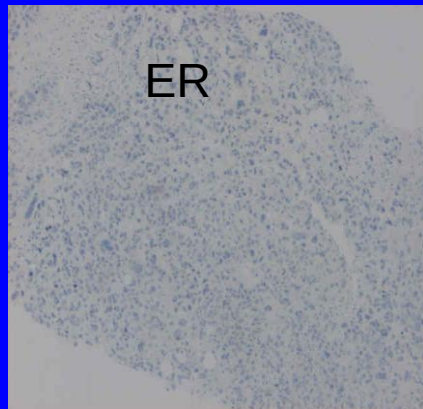
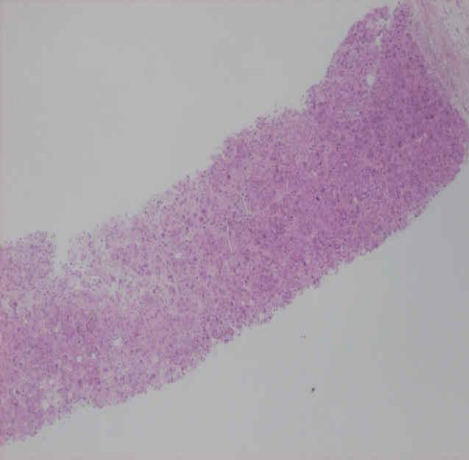
**Sami Shousha, MD, FRCPath
Department of Histopathology,
Charing Cross Hospital & Imperial College,
London**

Amman, November 2013

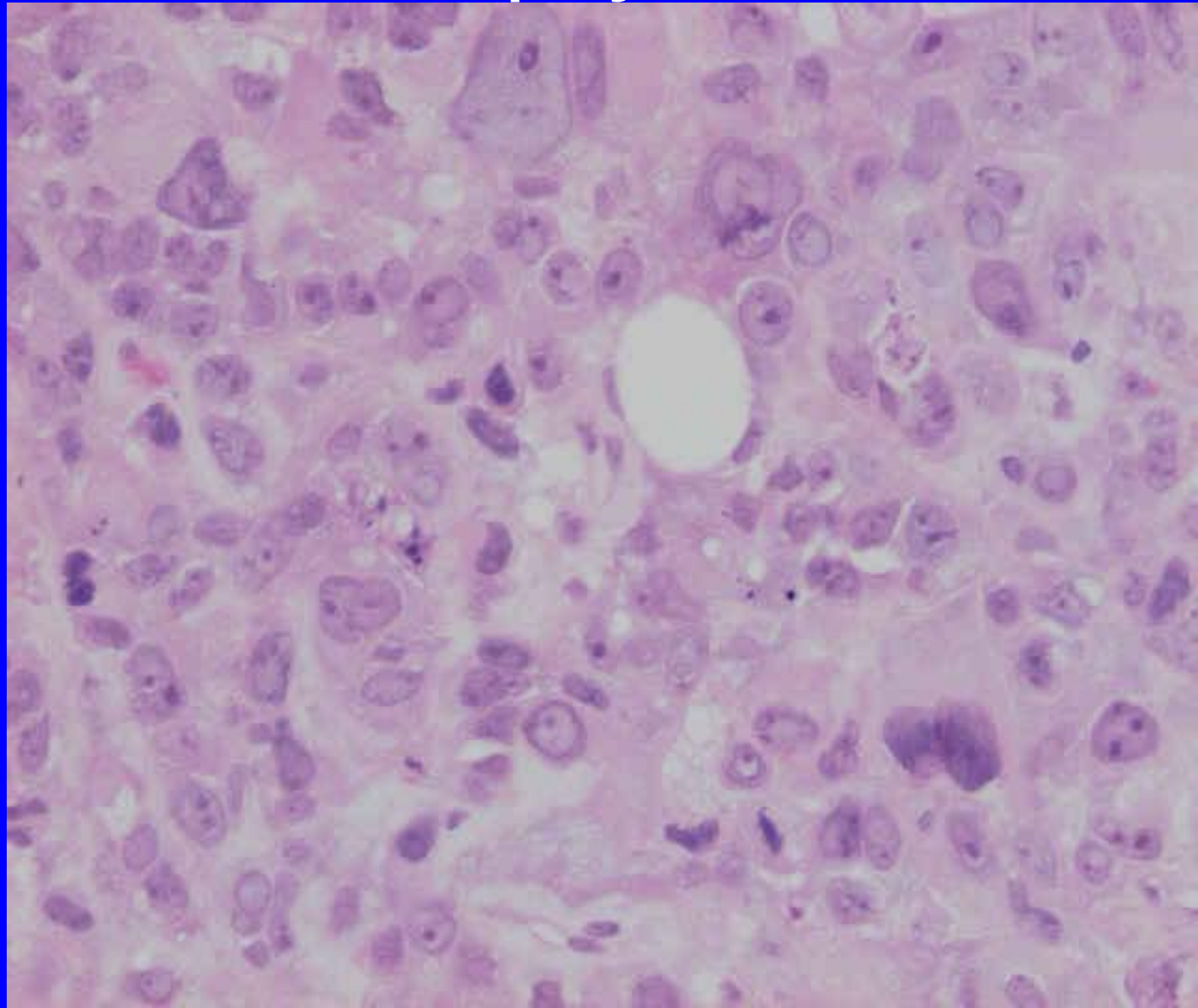
Case 237

- F63
- Screen detected tumour

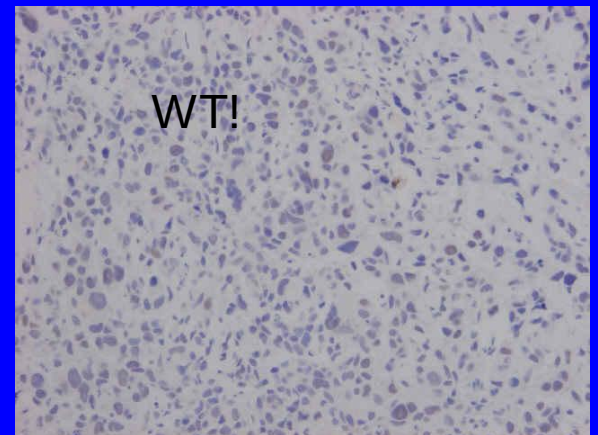
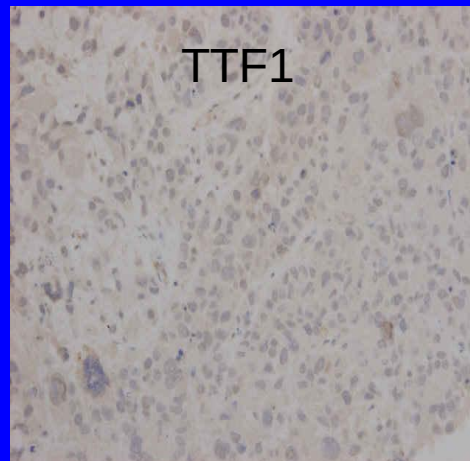
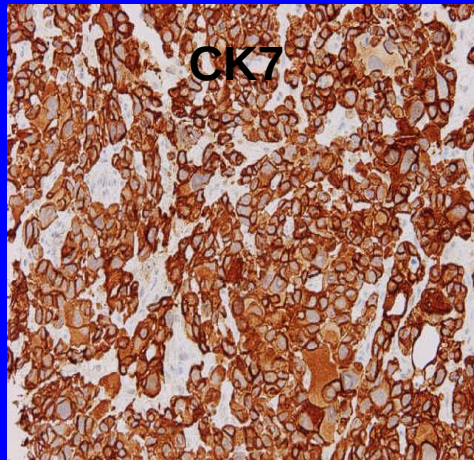
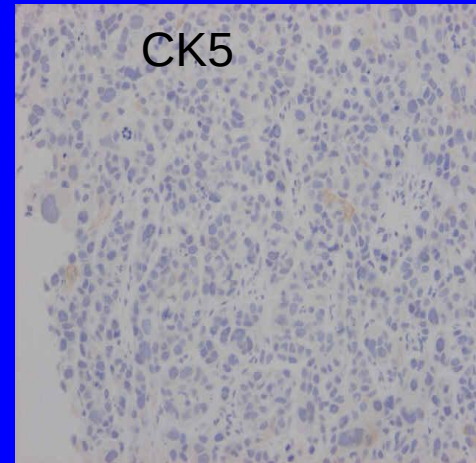
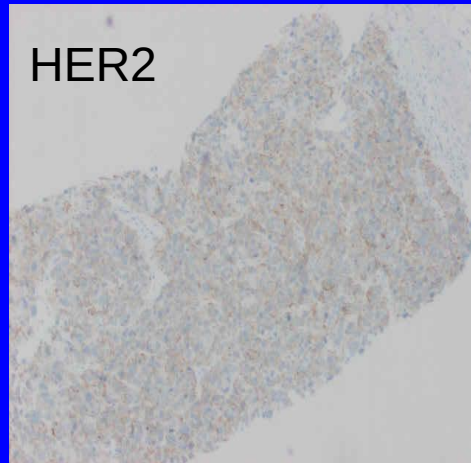
Core Biopsy



No DCIS

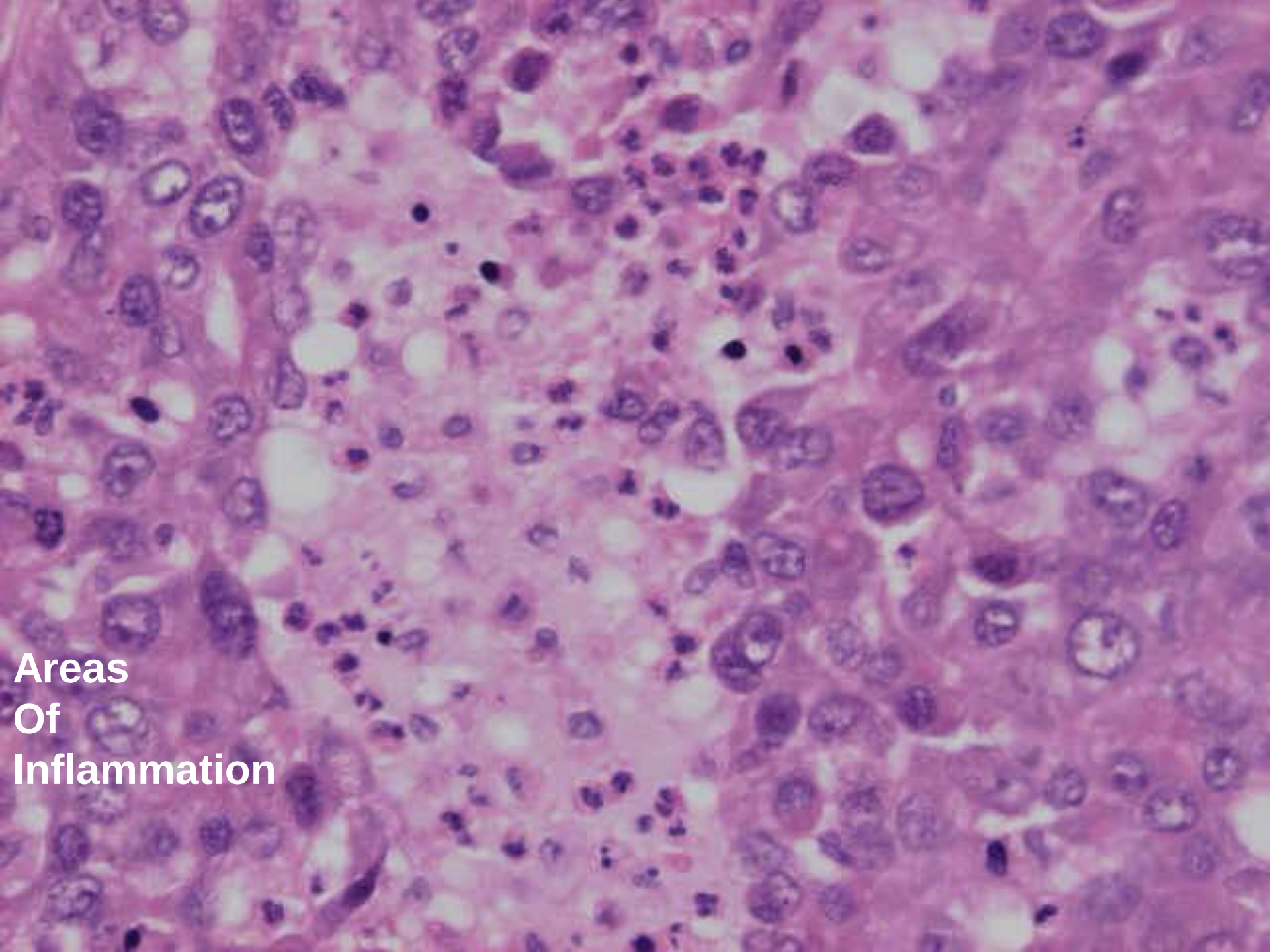


Core Biopsy



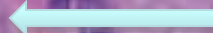
DIAGNOSIS: Invasive pleomorphic ductal carcinoma of the breast (B5b),
please exclude lung primary

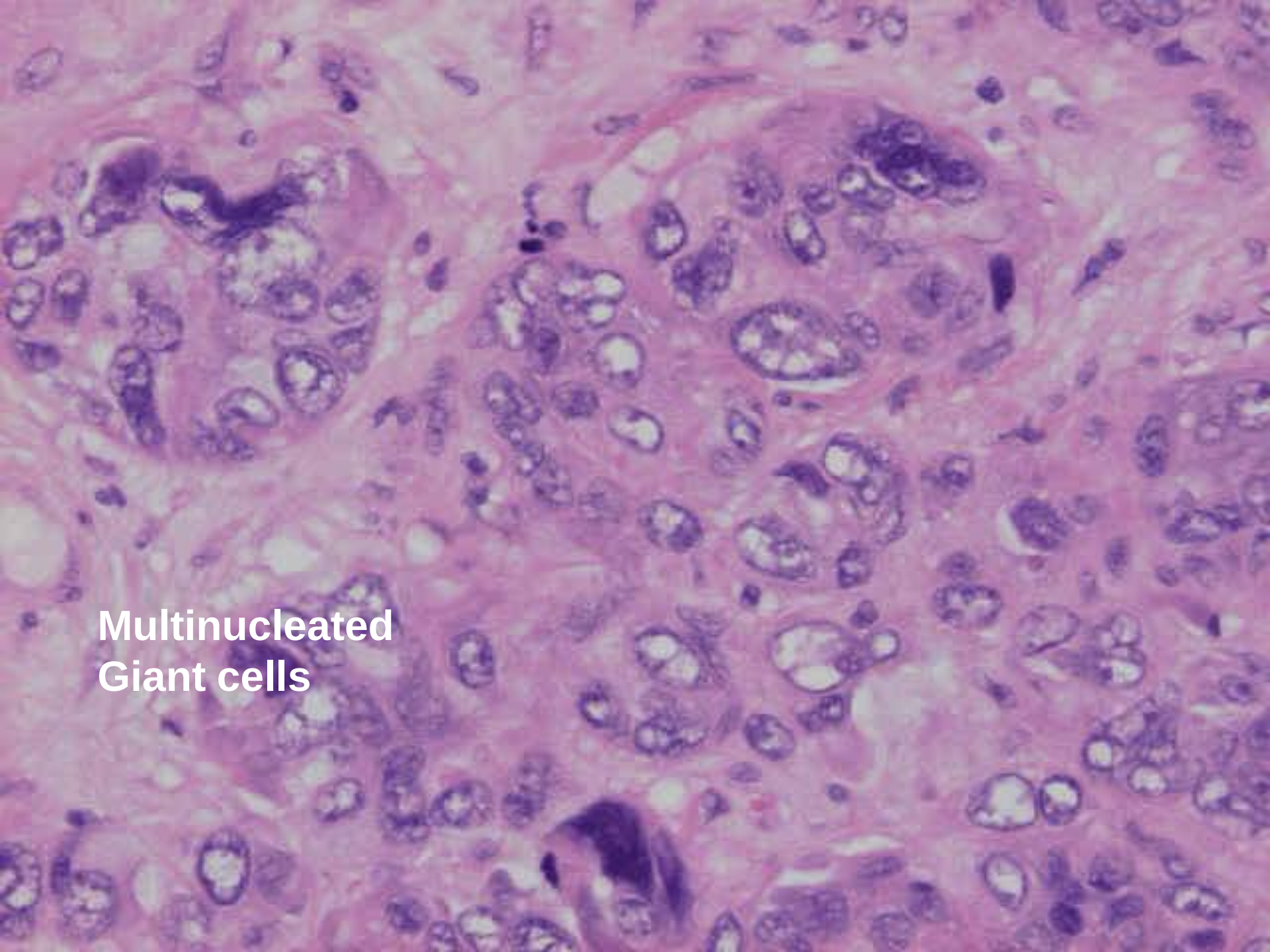




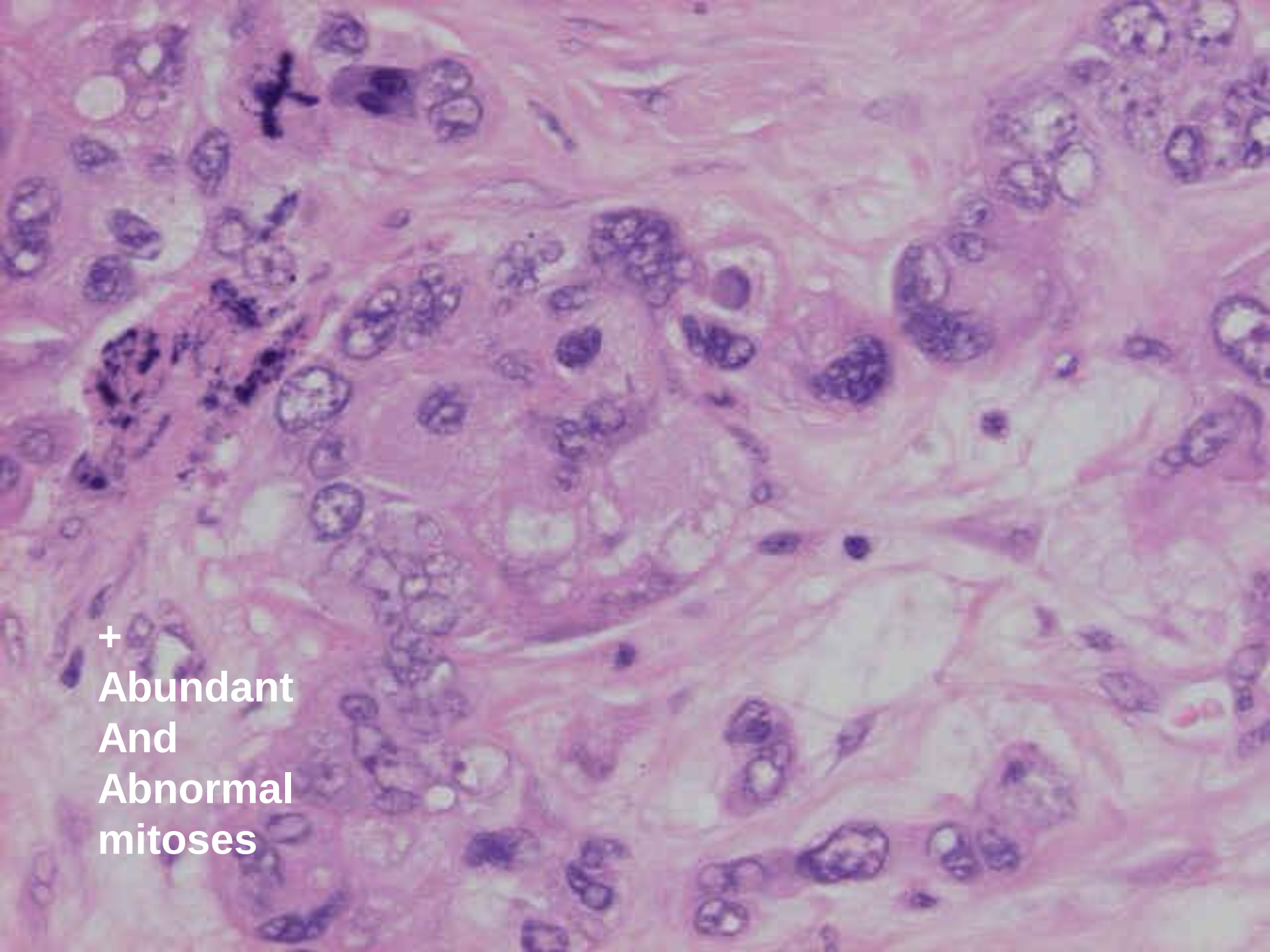
Areas
Of
Inflammation

Large
Abnormal
Nuclei
With
Vesicles
And
inclusions

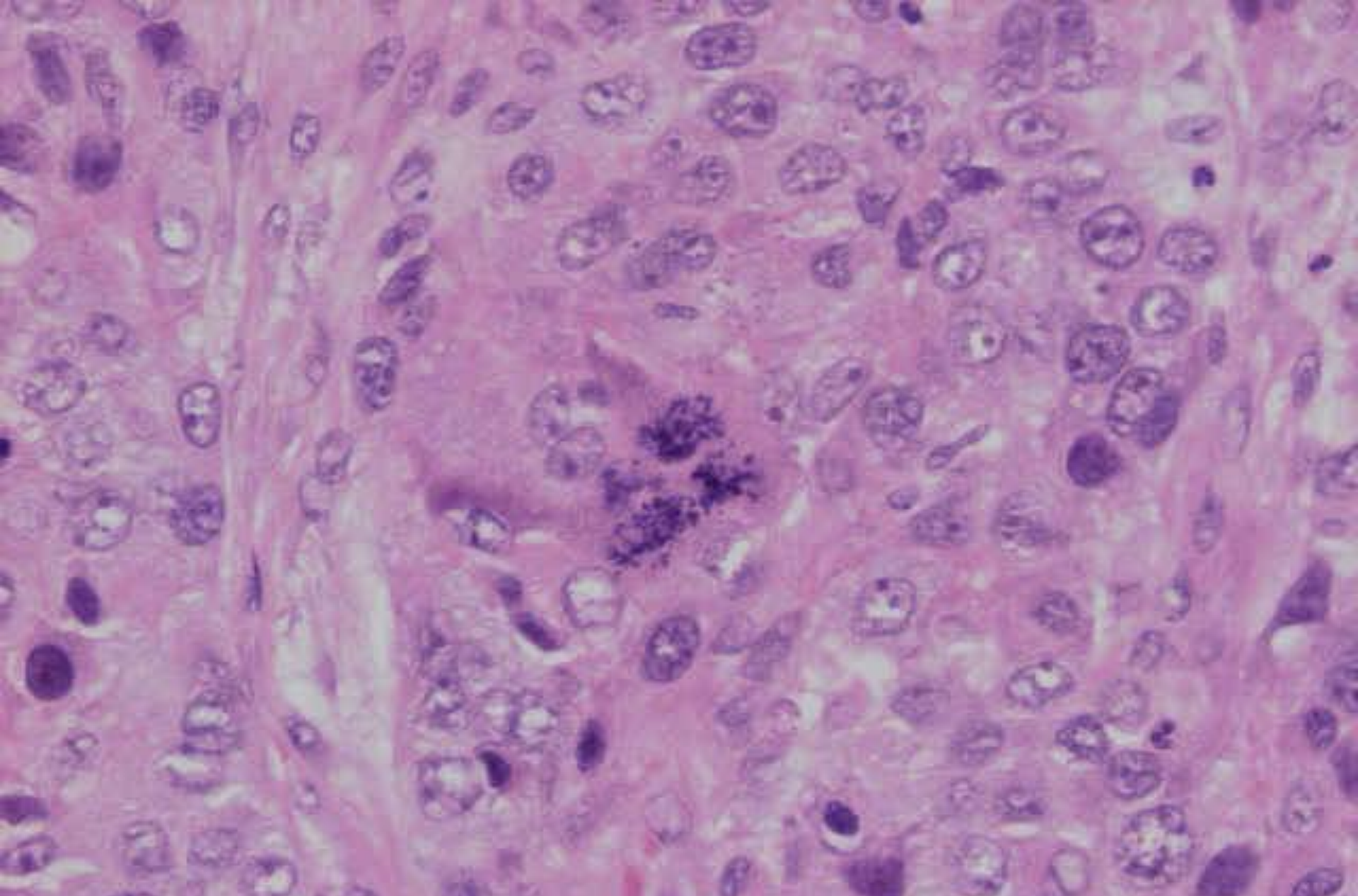


A histological section stained with hematoxylin and eosin (H&E), showing a tissue sample with numerous multinucleated giant cells. These cells are characterized by multiple nuclei within a single cell, often arranged in a ring or cluster. The background tissue shows a dense population of smaller cells, likely inflammatory cells, and some larger, pale-staining areas that may represent necrosis or edema. The overall appearance is consistent with a granulomatous reaction, such as that seen in tuberculosis or other chronic infections.

**Multinucleated
Giant cells**



+
Abundant
And
Abnormal
mitoses

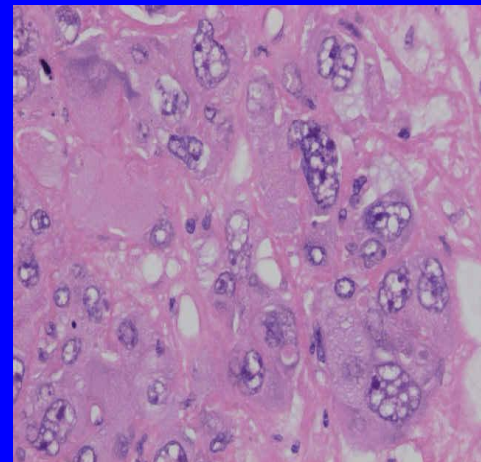
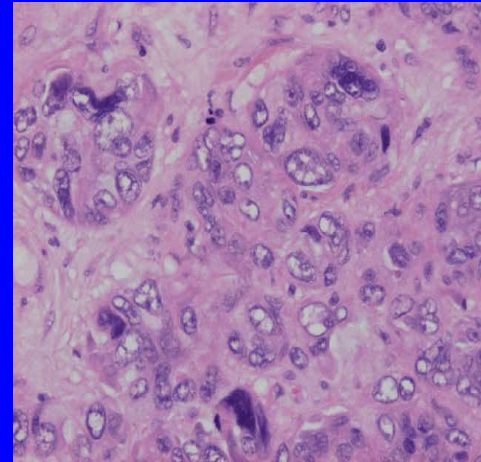


Final Diagnosis: Invasive pleomorphic ductal carcinoma, grade 3, triple negative

Pleomorphic Ductal Carcinoma of the Breast

Characterised by ¹, ²:

1. Marked nuclear pleomorphism (>6 fold variation of nuclear size), in more than 50% of tumour cells
2. Presence of multinucleated giant tumour cells



Pleomorphic Ductal Carcinoma of the Breast

In a series of 37 cases ² :

- Age 23-78y
- Size: 1.2-11.6cm
- Positive Axillary Nodes in 52% ^{1, 2}
- Focal spindle cell component in 38% ^{1, 2}
- Necrosis in 76%
- Well or Fairly circumscribed in 61%
- Typical invasive ductal elements in 22%
- Associated DCIS in 38%

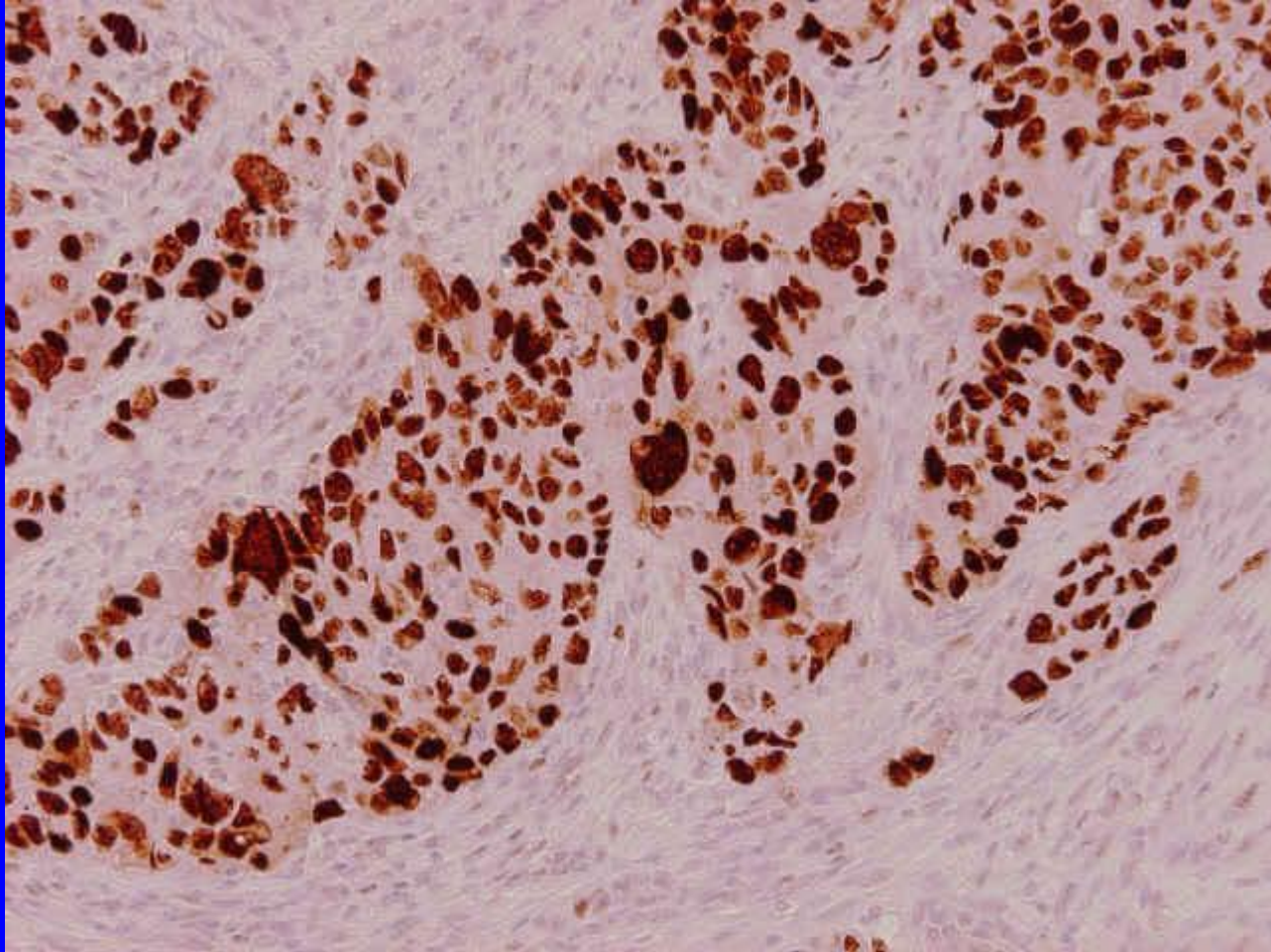
Pleomorphic Ductal Carcinoma of the Breast/ **Immunohistochemistry**

- ER & PgR negative in 94-100%¹⁻³
- HER2 Negative in 40-84%¹⁻³
- p53 expression in 60-71%^{1,3}
- S100 positive in 40%³
- p63 positive in 20% (spindle cell elements)³
- Ki67: High

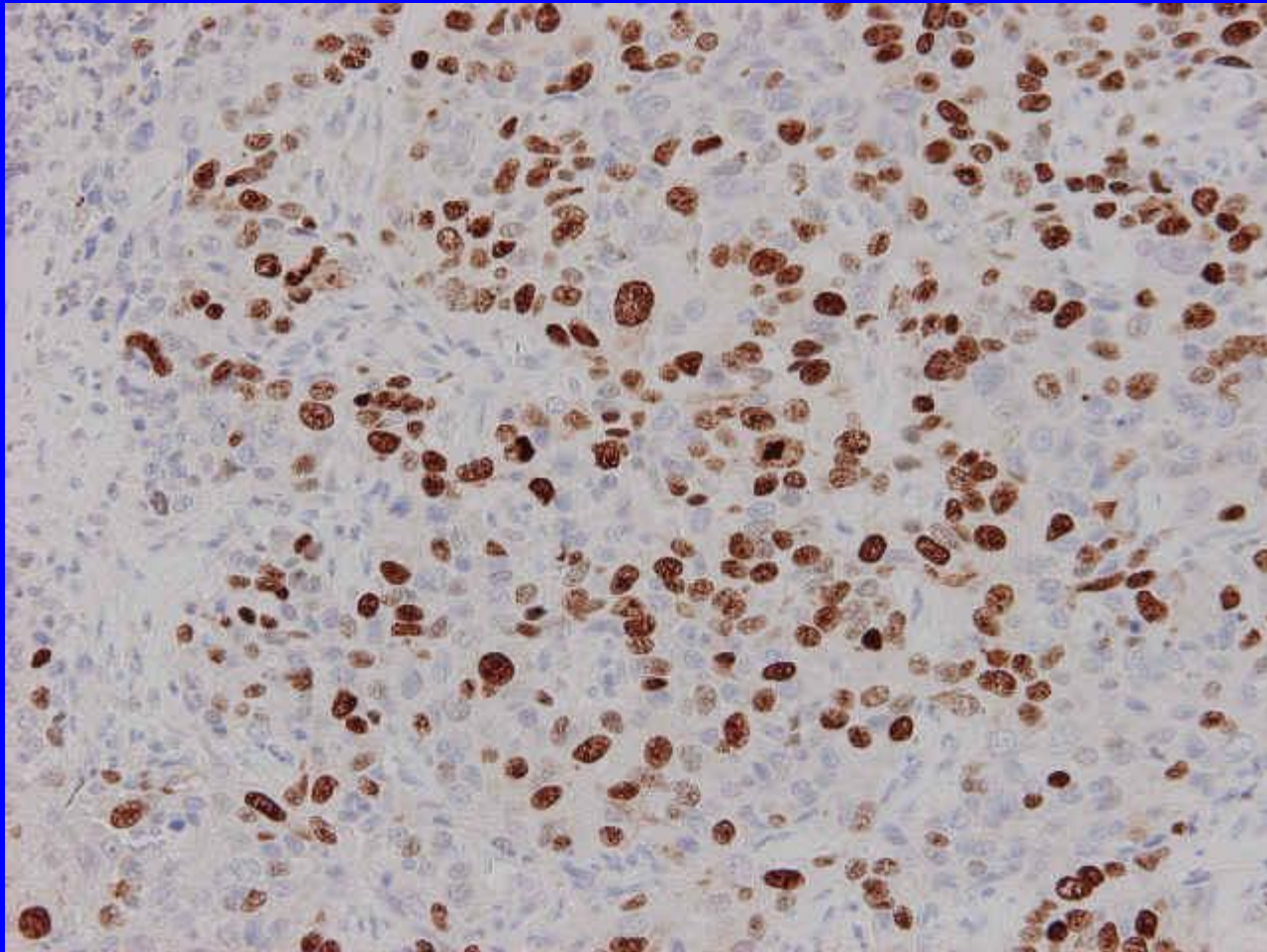
Pleomorphic Ductal Carcinoma of the Breast

- 5-year survival ² :
 - 38% if there are spindle cell elements
 - 89% in the absence of spindle cell elements

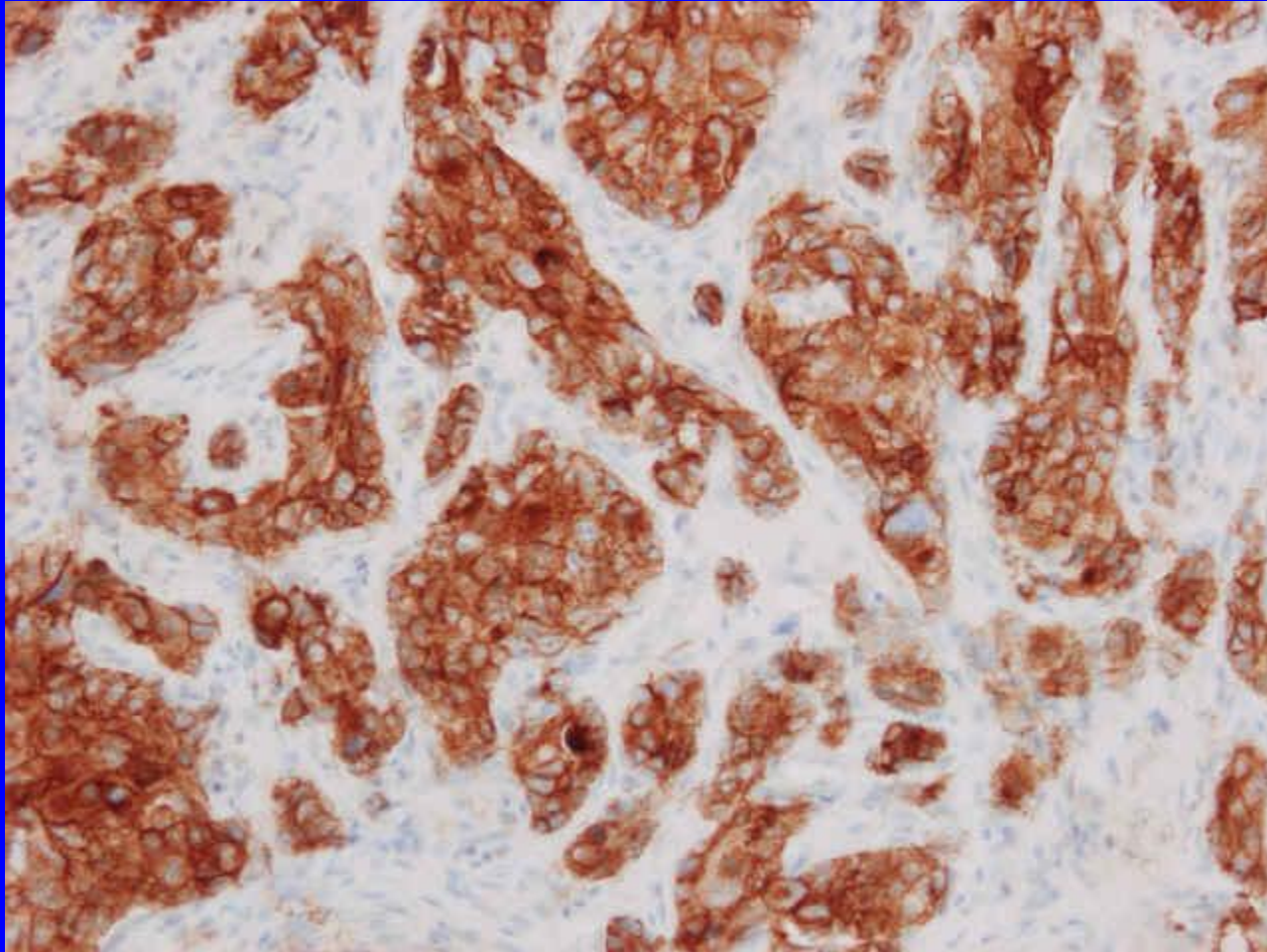
p53



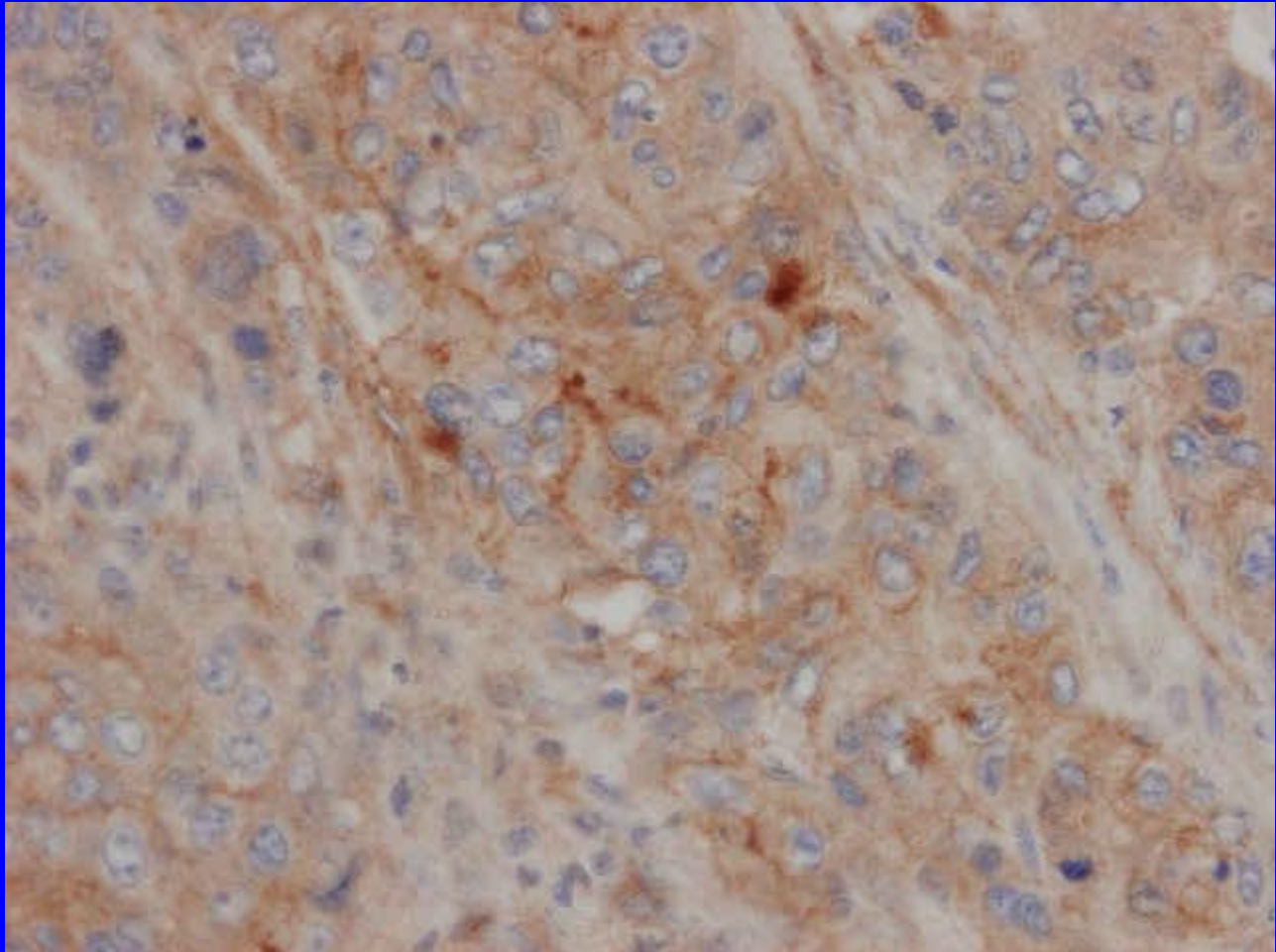
Ki67



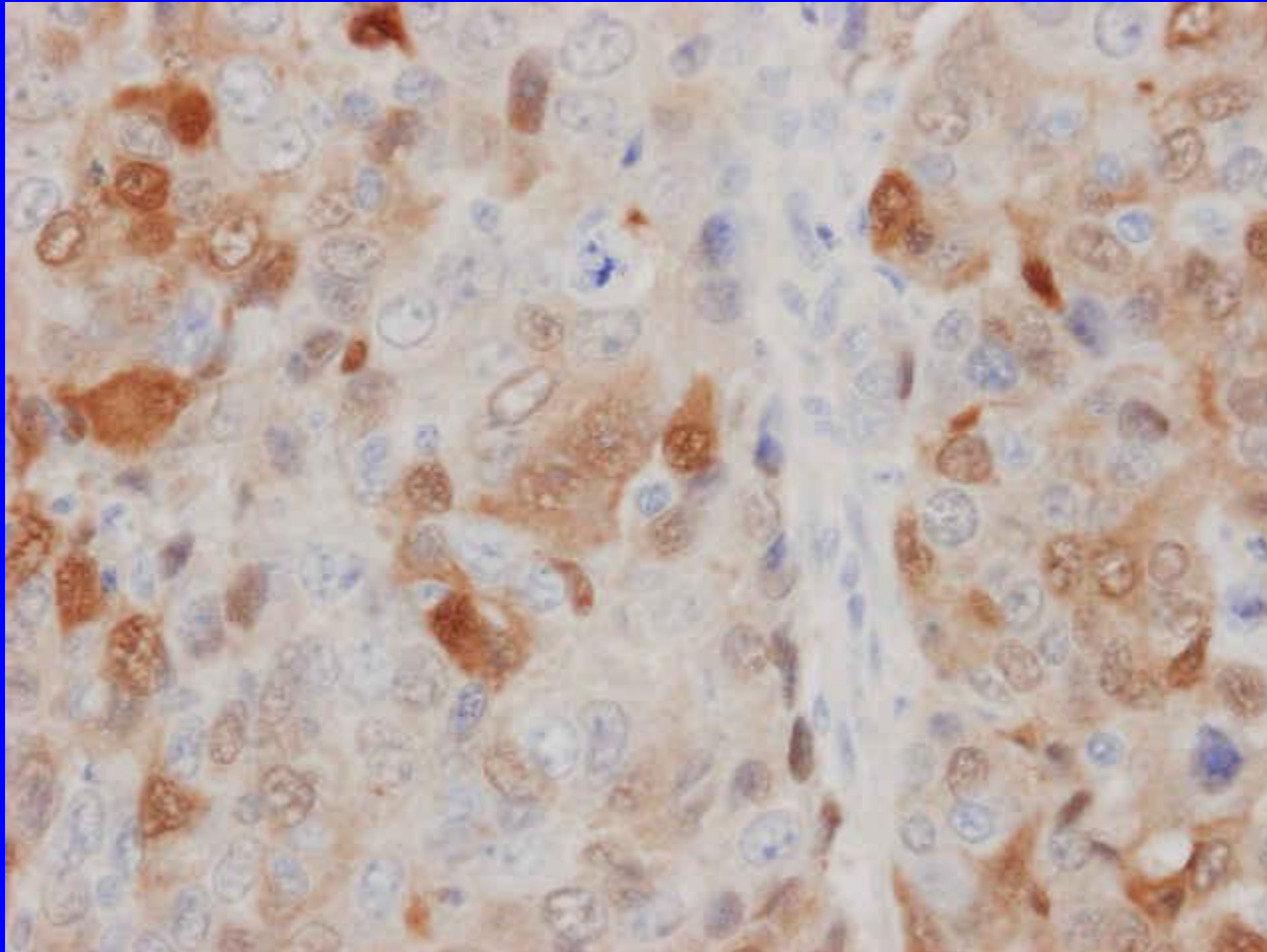
E-Cadherin



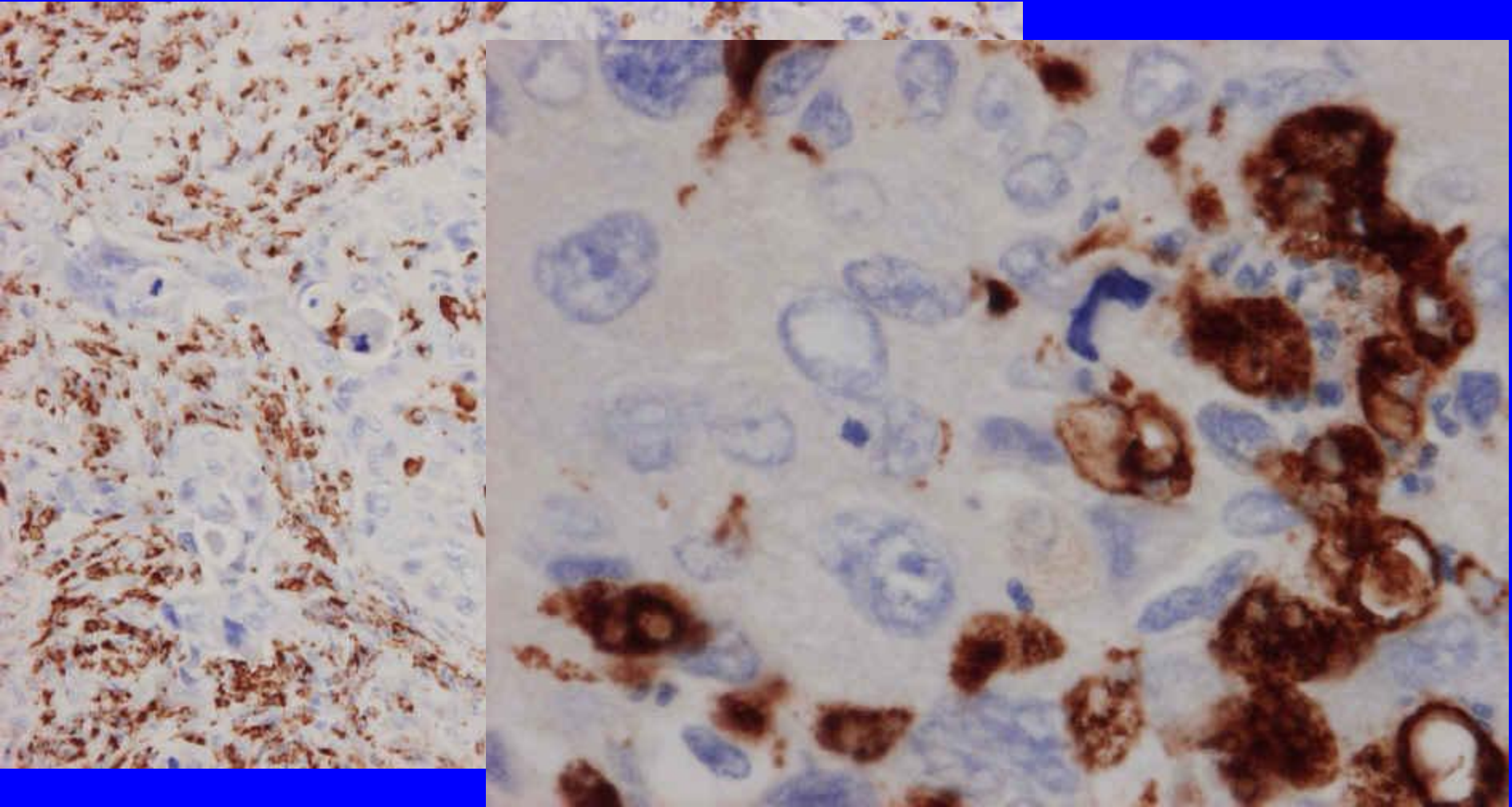
EGFR



S100



CD68



Macrophage markers have been described in 2 cases⁴

Follow up

- Patient Well with no evidence of recurrence or metastasis 14 months after surgery (Had no chemo or radiotherapy because of Huntington's disease)

A histological section of prostate tissue stained with hematoxylin and eosin (H&E). The image shows numerous glandular structures of varying sizes and shapes, some with prominent nucleoli and others with more uniform nuclei. The glands are separated by thin layers of stroma. The overall architecture is complex and heterogeneous, reflecting the unique morphology of the tissue.

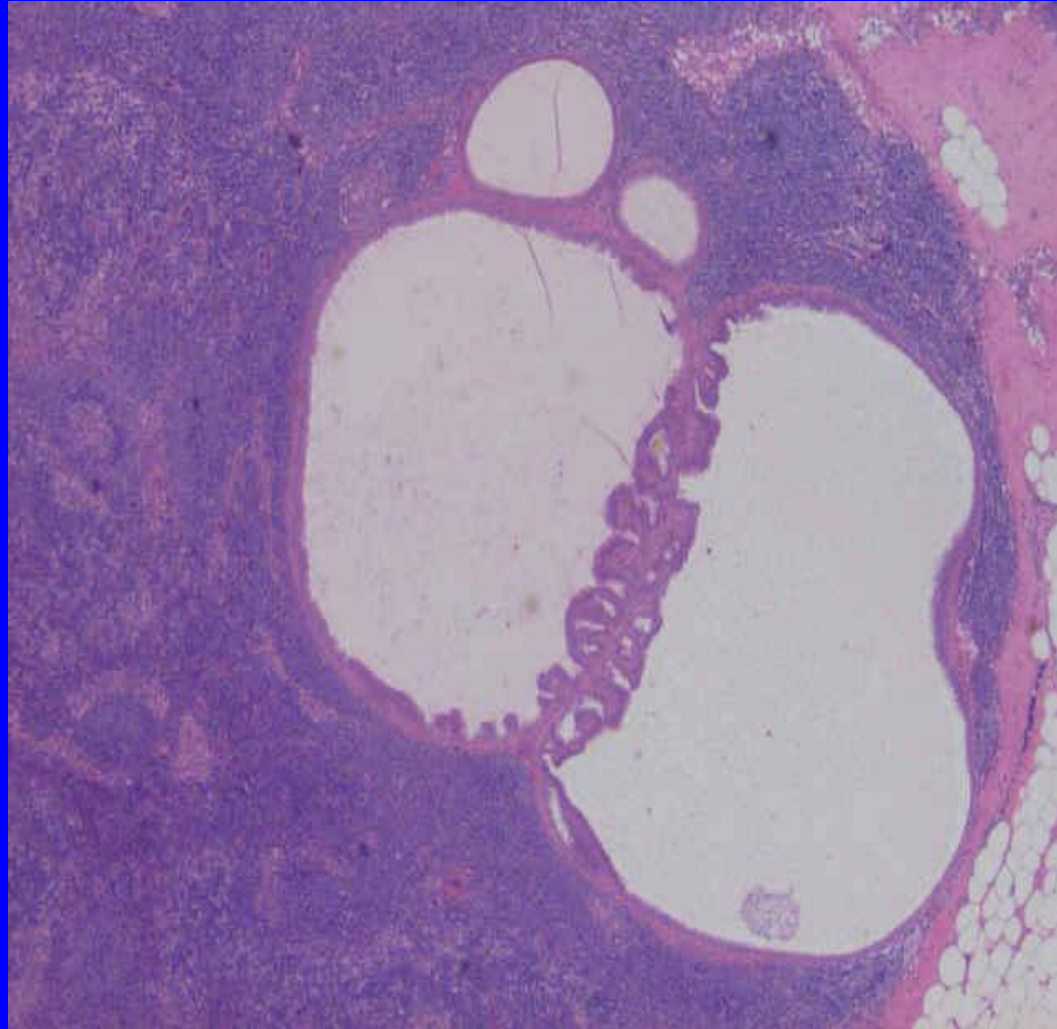
**Does Tumour morphology reflect
unique patient's personality?
(Personalised Pathology!)**

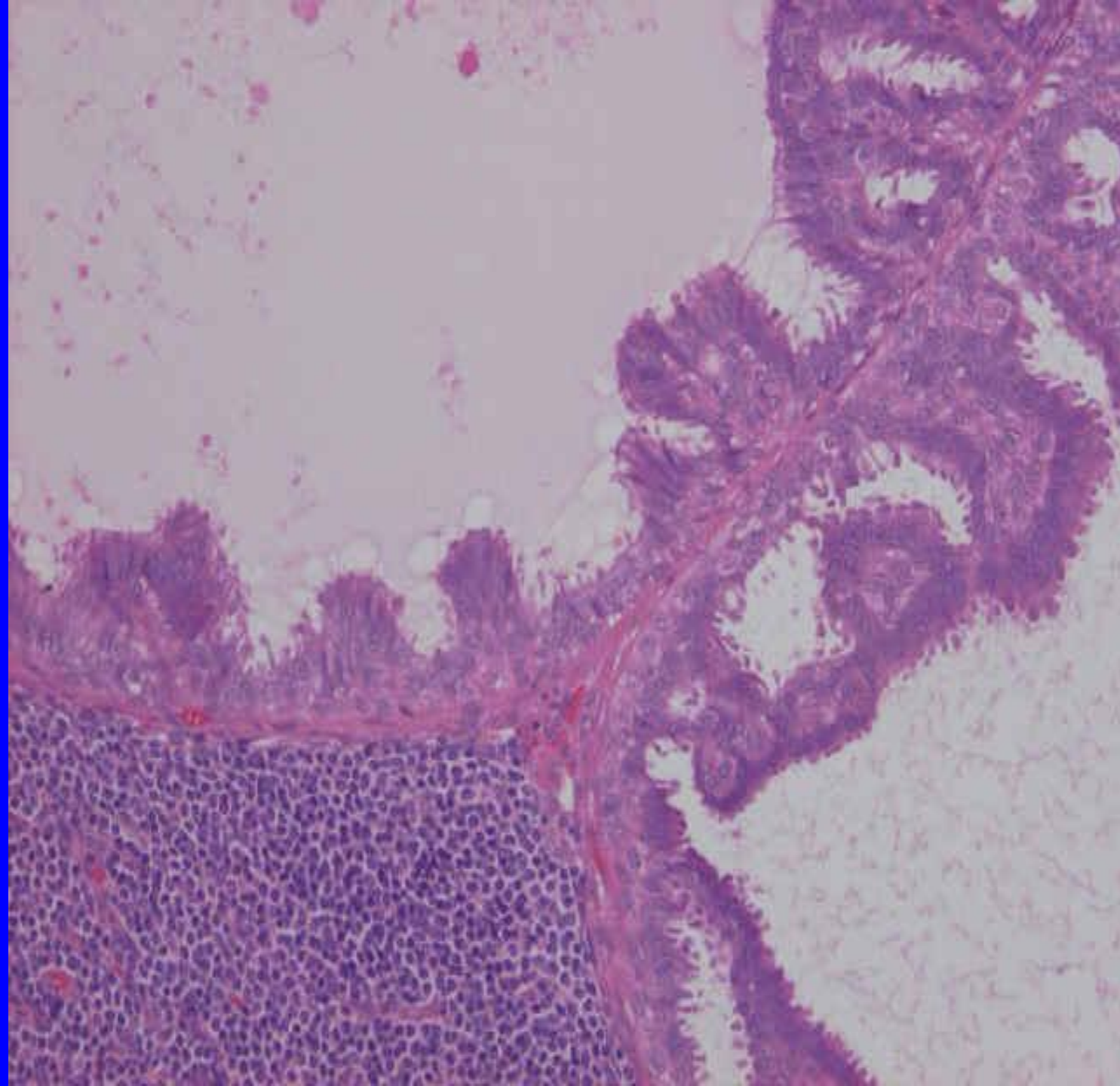
References

1. Silver SA, Tavassoli FA. Pleomorphic carcinoma of the breast: clinicopathological analysis of 25 cases of an unusual high-grade phenotype of ductal carcinoma. Histopathology 2000, 36: 505-514
2. Nguyen CV et al. Pleomorphic ductal carcinoma of the breast: Predictors of decreased overall survival. Am J Surg Pathol 2010,34: 486-493
3. Zhao J et al. Clinicopathologic characteristics of pleomorphic carcinoma of the breast. Virchows Arch 2010: 456: 31-37
4. Cordoba A et al. Pleomorphic carcinoma of the breast with expression of macrophage markers: report of two cases. Pathol Int 2012: 62: 491-495
5. Sousa CM et al. The huntington disease protein accelerates breast tumour development and metastasis through ErbB2/HER2 signaling. EMBO Mol Med 2013,34: 309-325

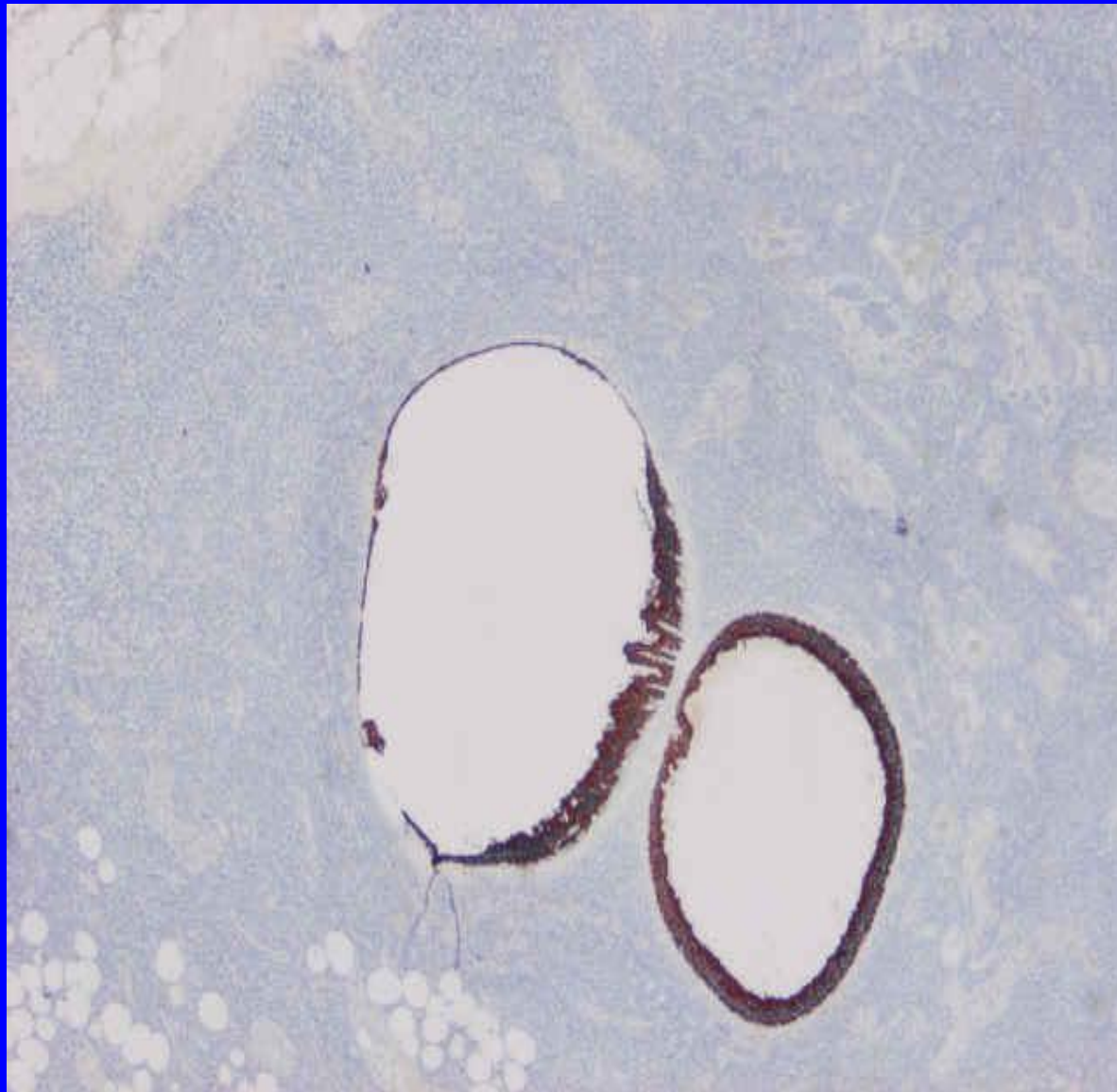
- F75 with breast cancer
- Section of Sentinel lymph node

F75, Rt invasive ductal carcinoma, Sentinel node biopsy

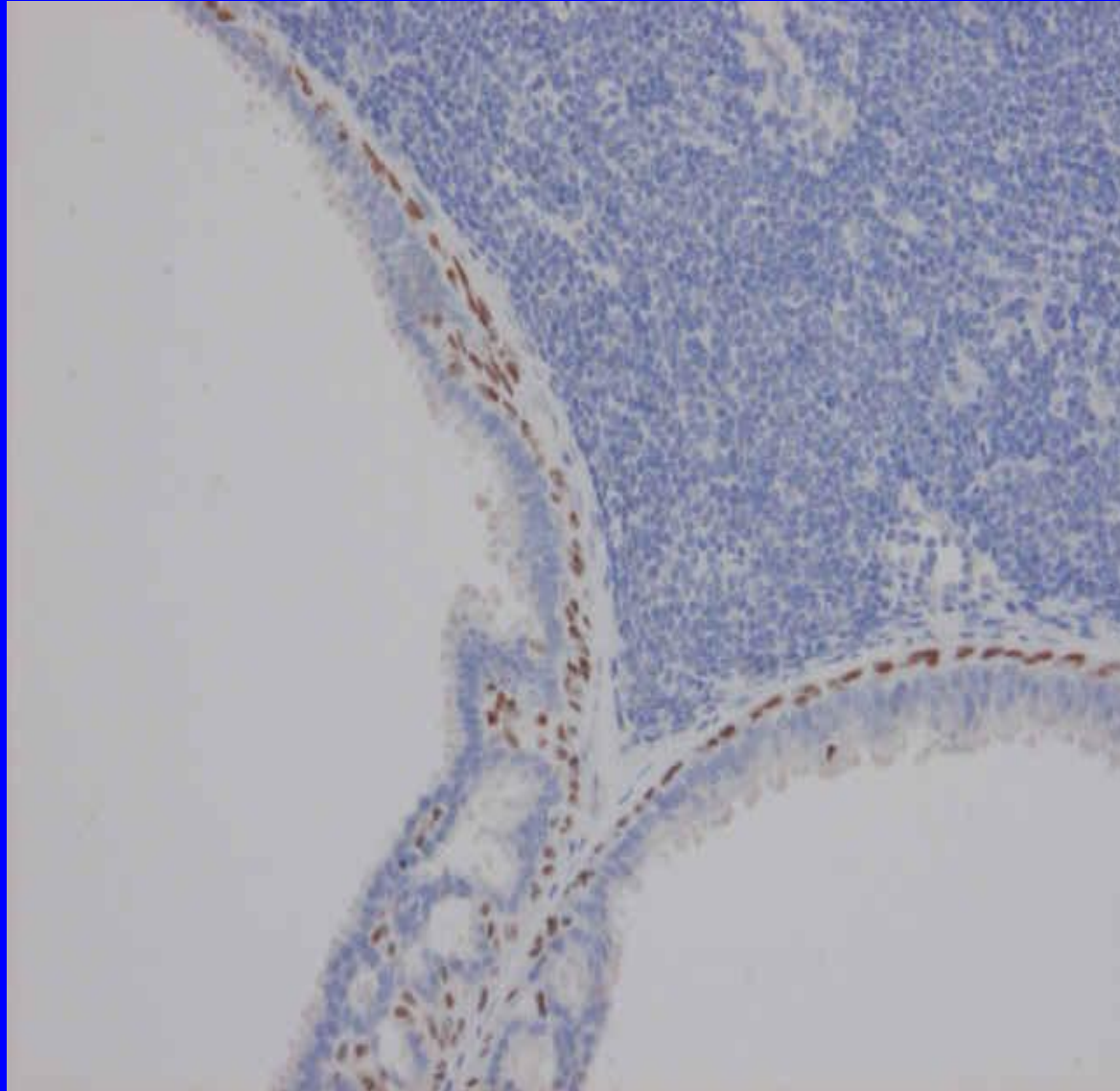




AE1/AE3



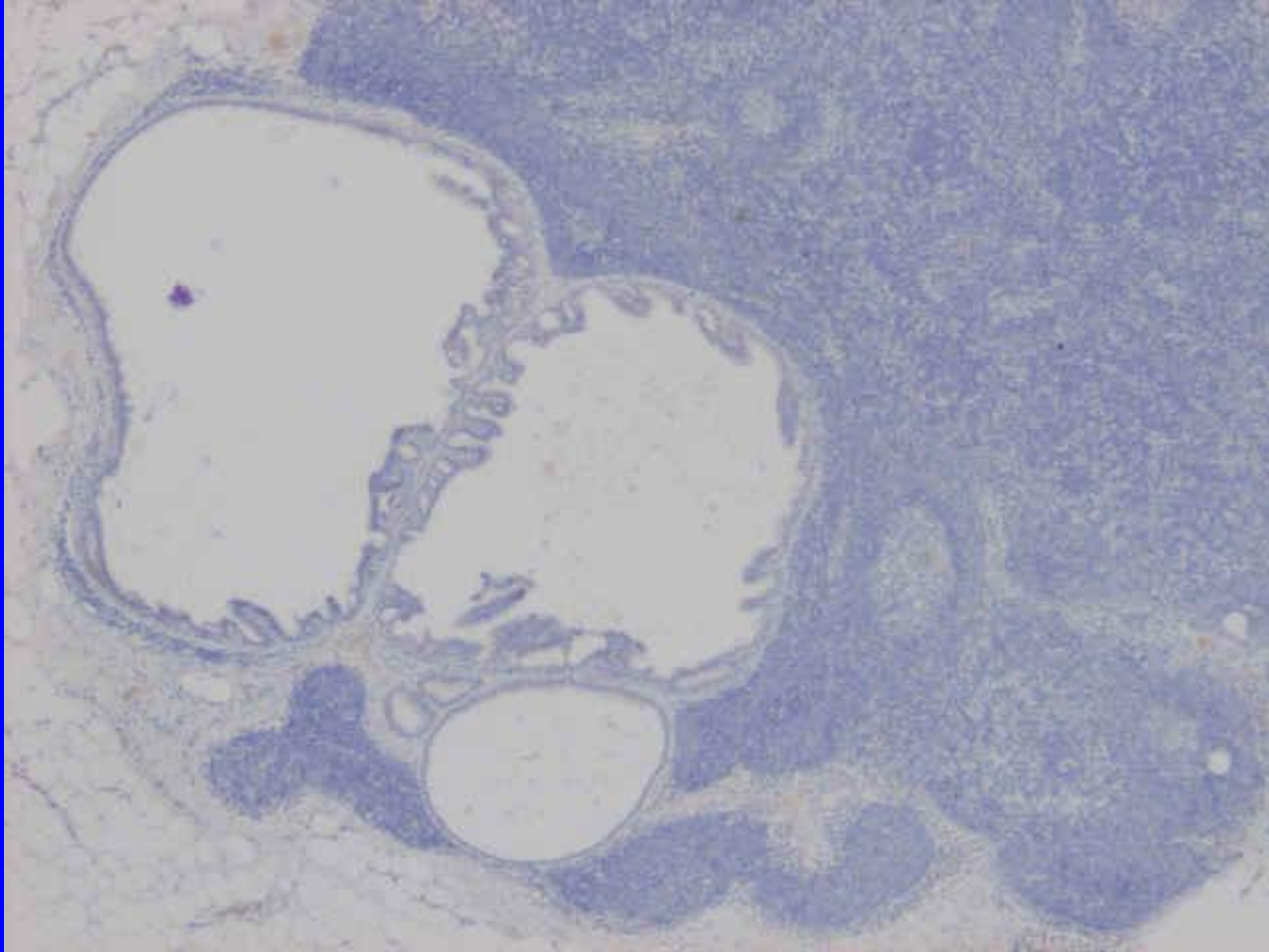
p63



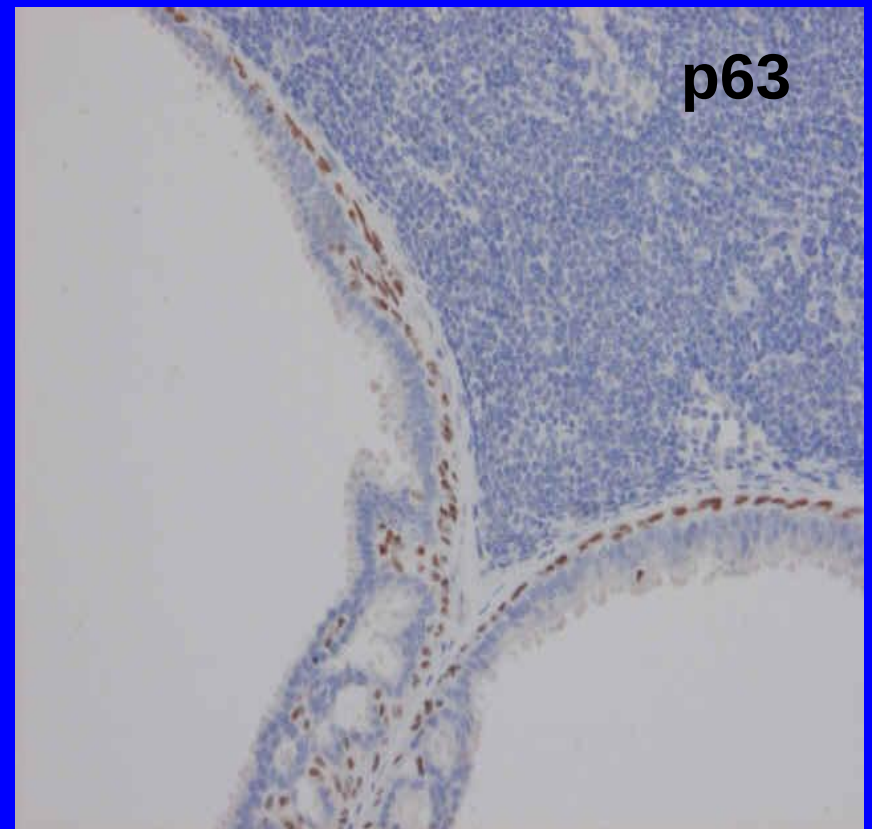
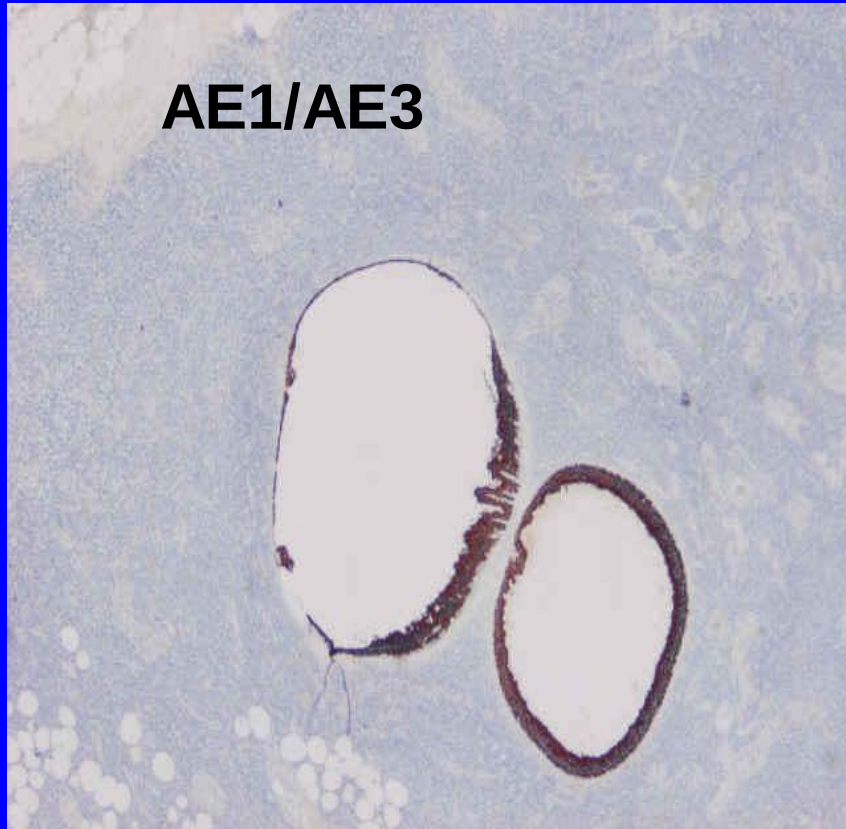
Diagnosis:

**Benign
Glandular
inclusions**

WT1



WT1 negative: Not consistent with endosalpingiosis



Diagnosos: Benign glandular breast-like epithelial inclusions

Benign epithelial inclusions in axillary lymph nodes

- Uncommon, but now increasingly seen in sentinel node biopsies, and can be mistaken for metastatic carcinoma.
- Four types have been described*;
 1. Glandular breast like inclusions:
 - Myoepithelial cells are present around the glands.
 - Negative for WT1.
 - Can show all pathological changes that can be seen in the breast.
 2. Glandular Mullerian like inclusions (nodal endosalpingiosis):
 - Myoepithelial cells absent.
 - Cells are ciliated and are WT1 positive.
 3. Squamous inclusions: solid or cystic.
 4. Mixed glandular and squamous inclusions

*Fellgara G, Carcangiu ML, Rosai J. Benign epithelial inclusions in axillary lymph nodes: Report of 18 cases and review of the literature. Am J Surg Pathol 2011; 35: 1123-1133

Benign epithelial inclusions in axillary lymph nodes

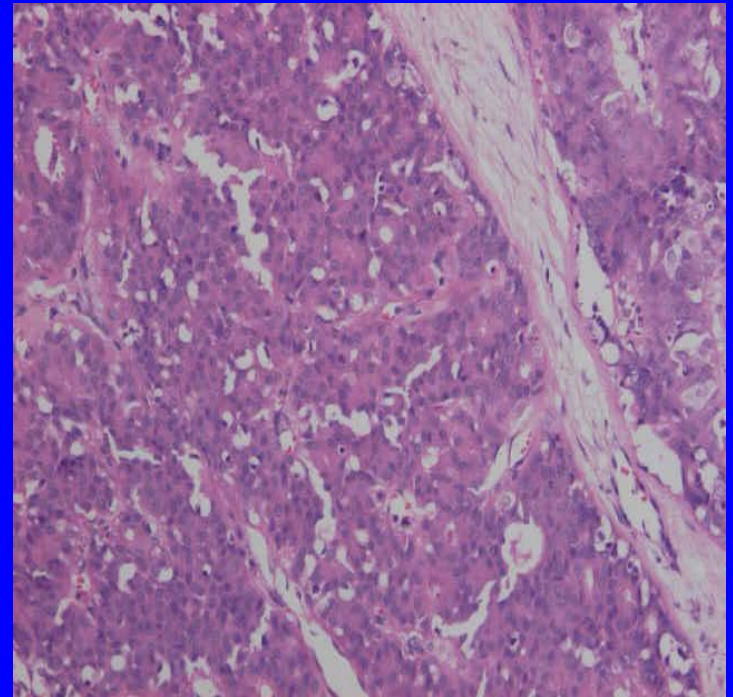
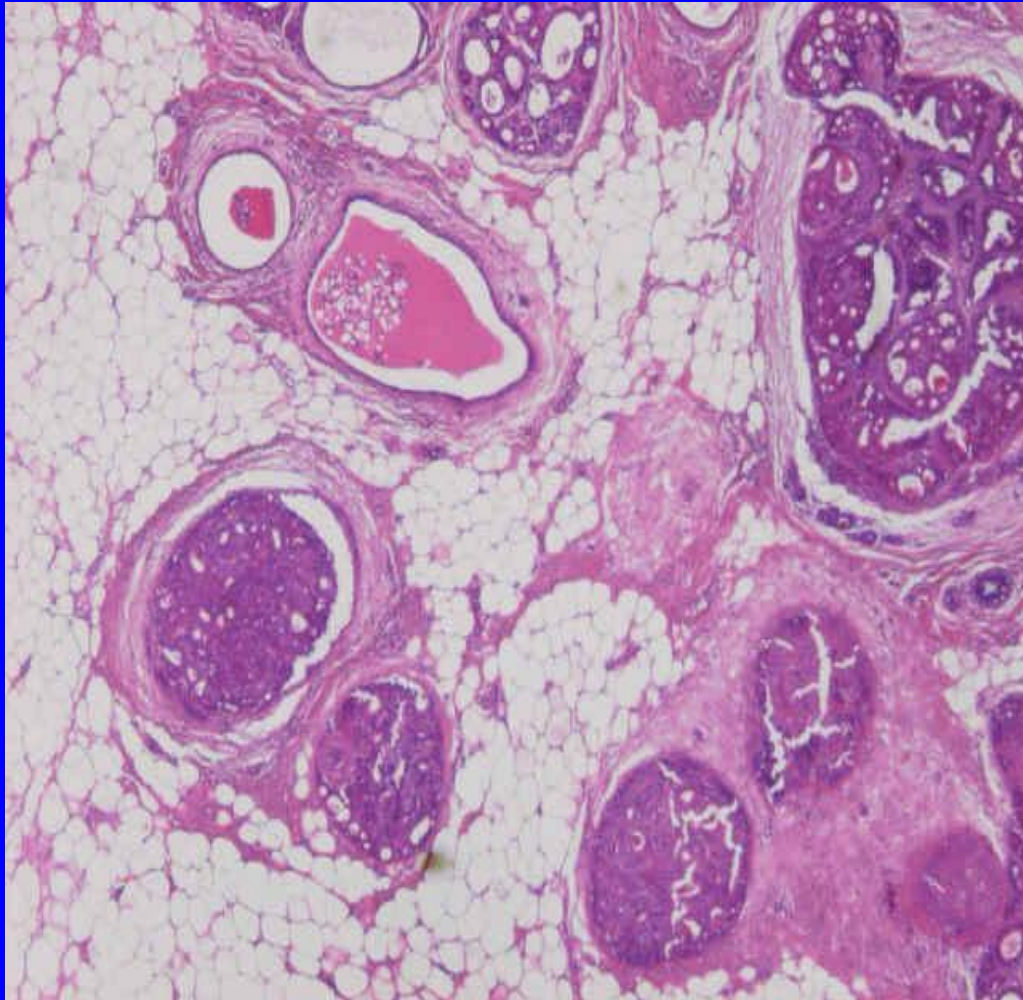
- Possible aetiology:
 - Transported epithelium from the breast (possibly in some cases that had breast surgery)
 - embryologic epithelial rests (as sometimes seen with no previous breast surgery)

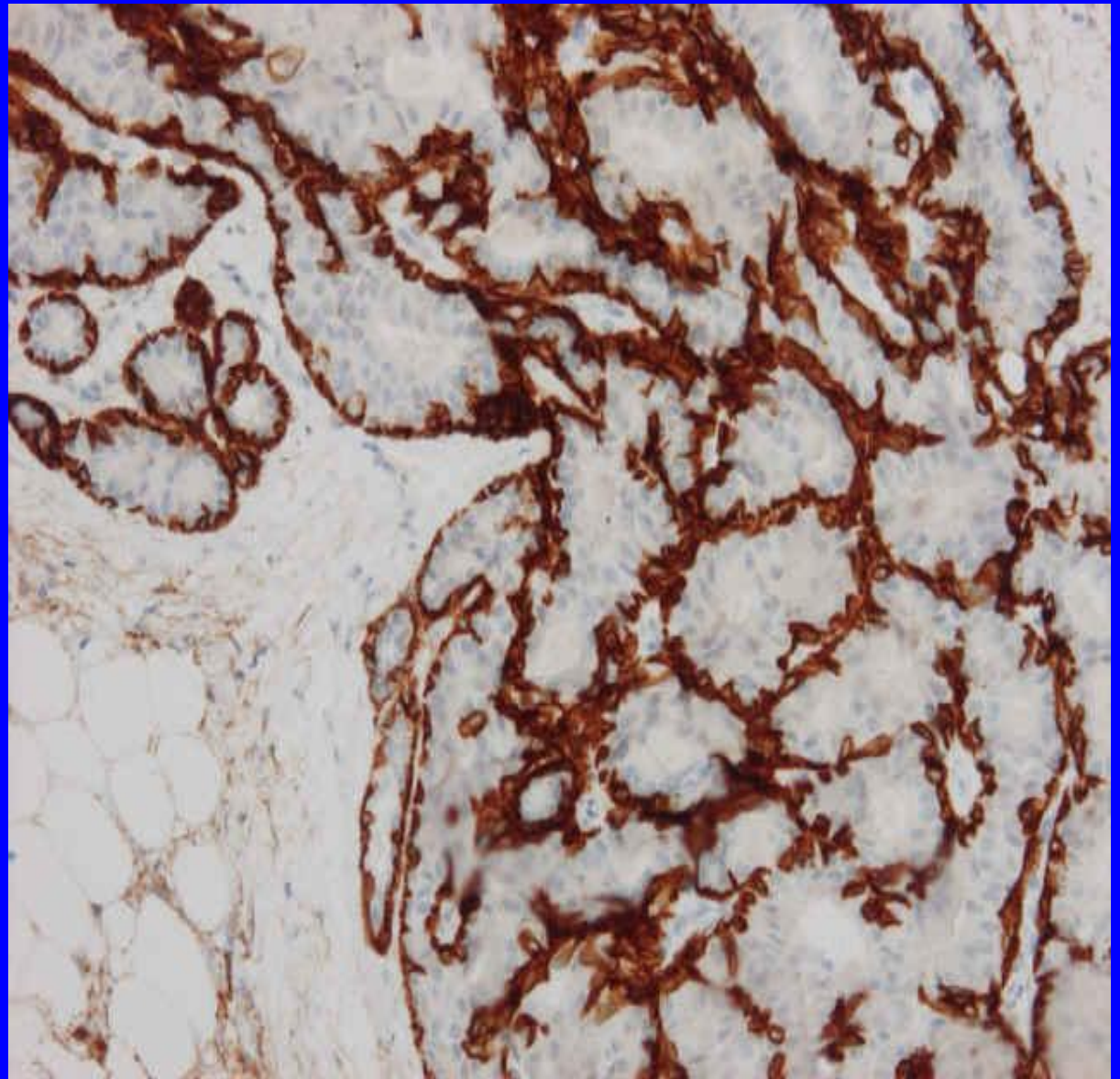
Conclusion

- Not all epithelial elements in lymph nodes are malignant



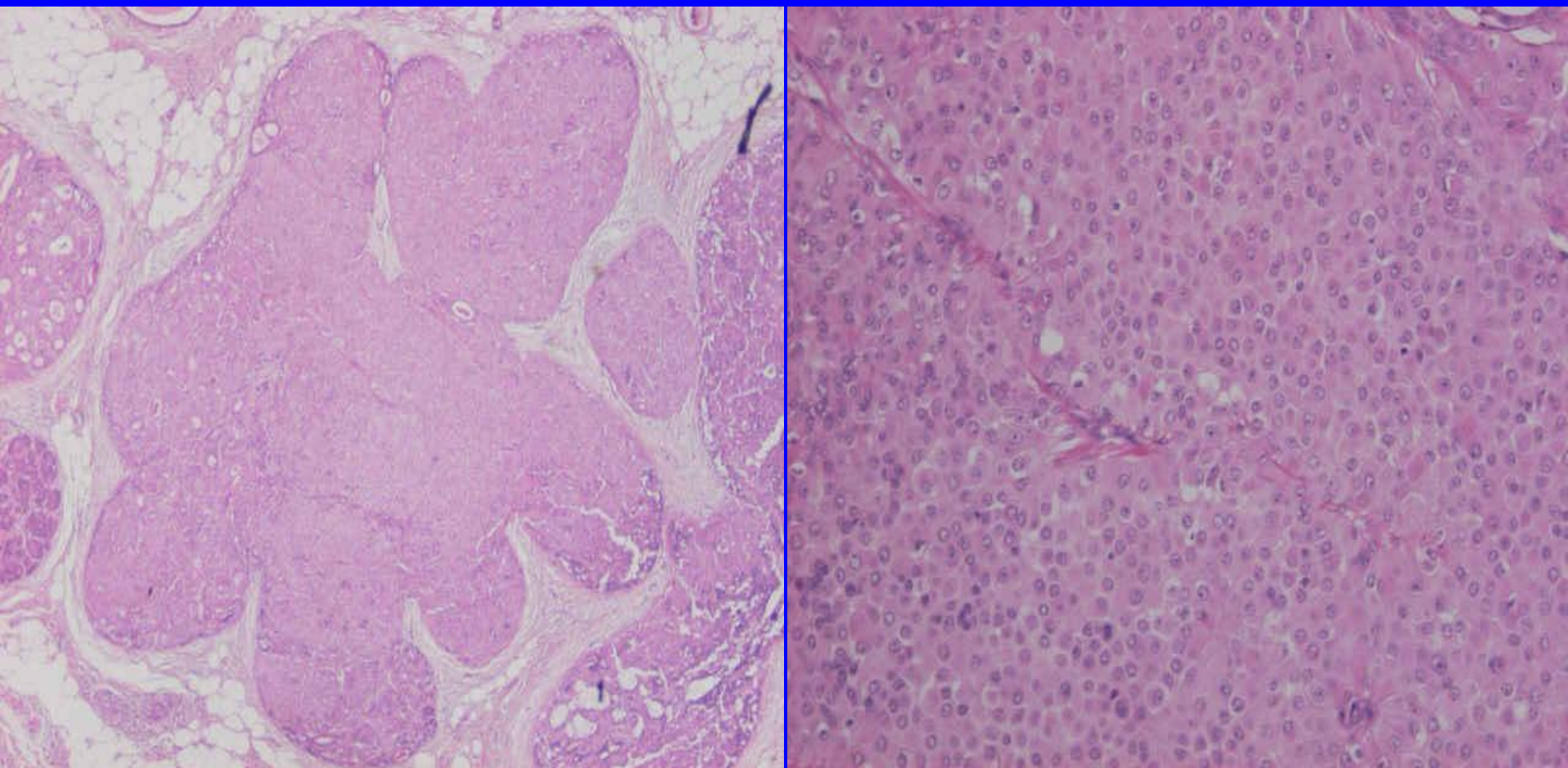
Case 258: F46 Rt Breast Lump

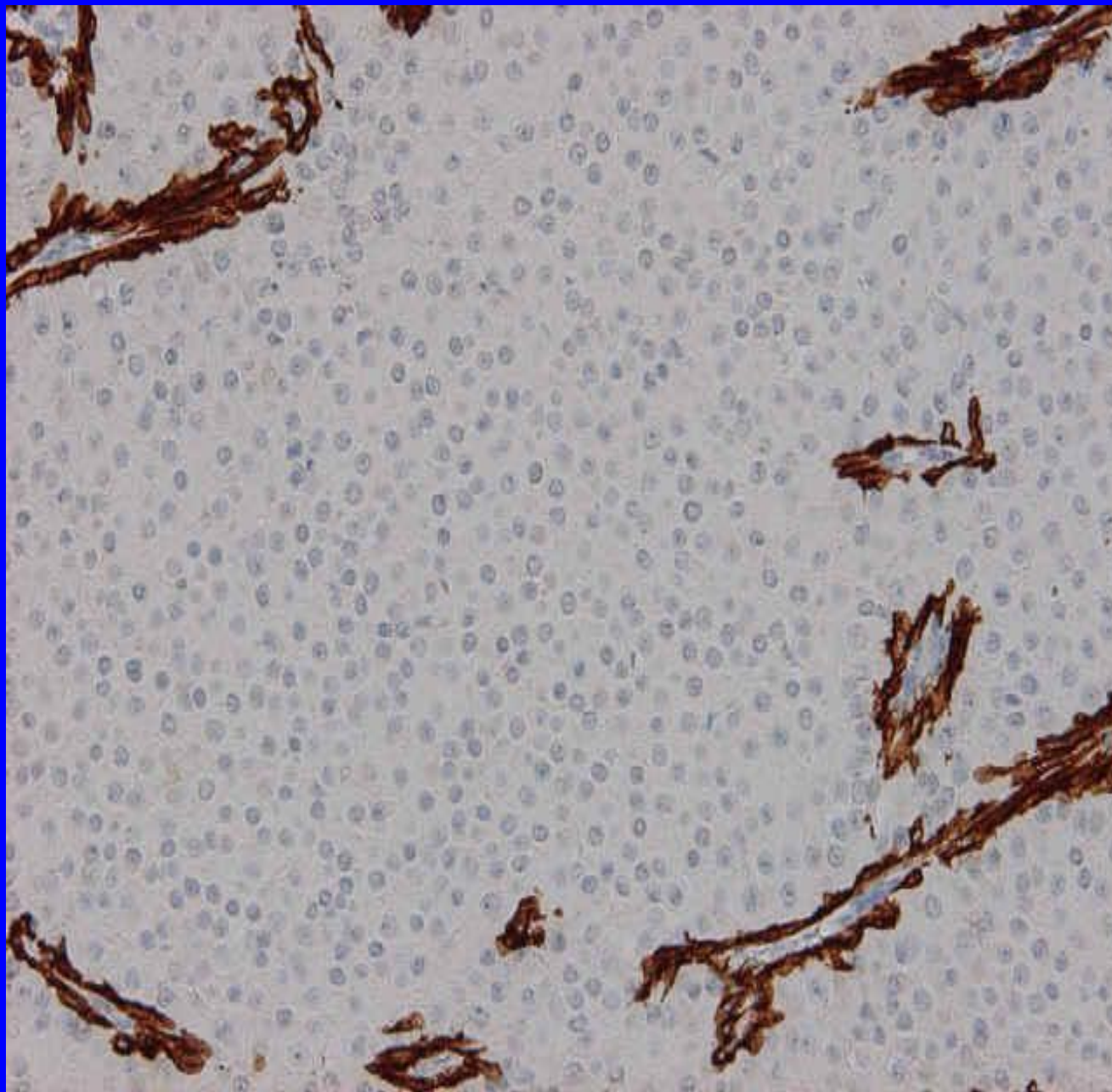




Diagnosis: Extensive atypical crbriform hyperplasia (Juvenile papillomatosis)

Case 258





With focal low grade in situ malignant change