

Slide Seminar – Case #13

Caterina Marchiò

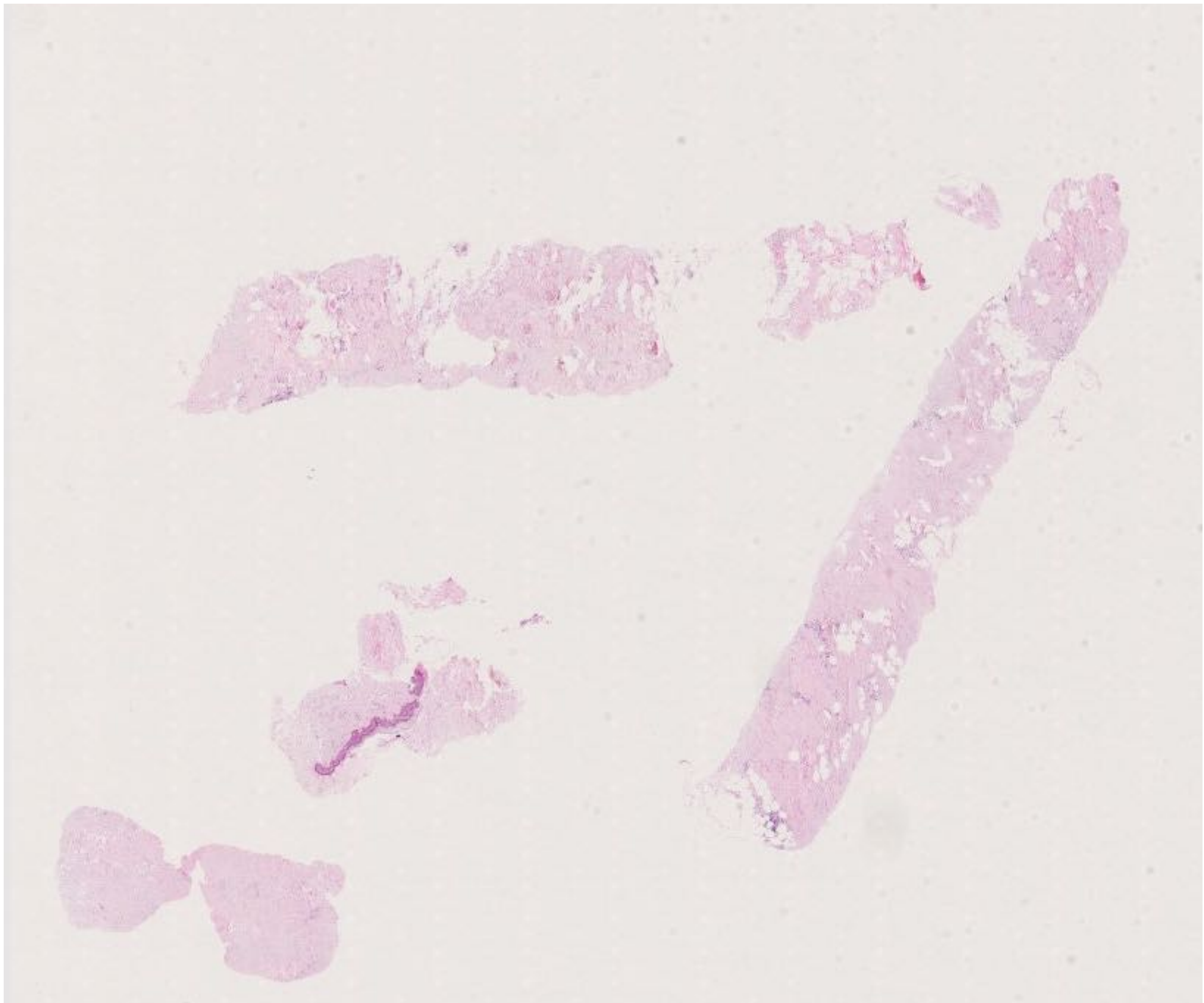
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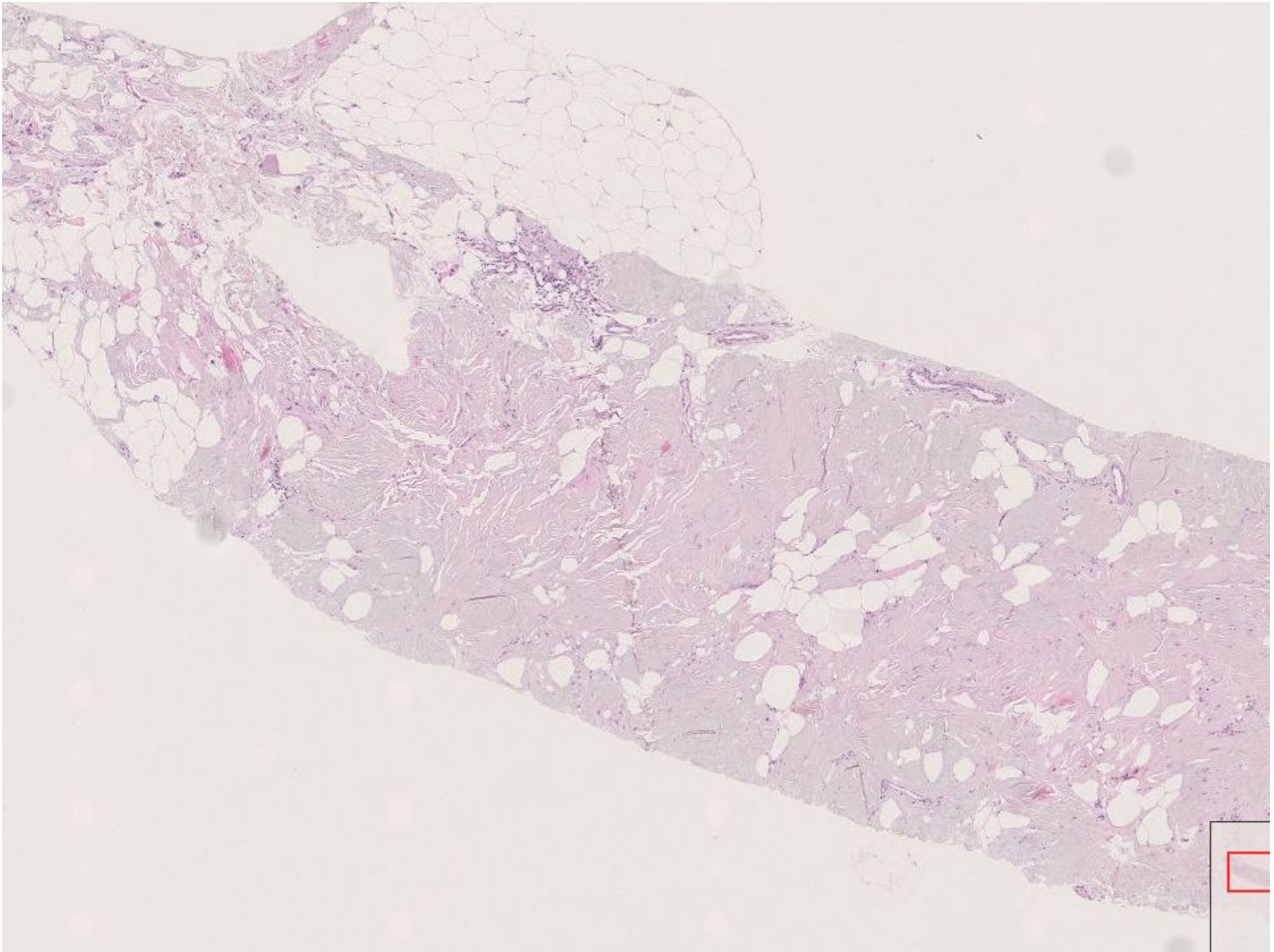
Pathology Unit - Institut Curie, Paris

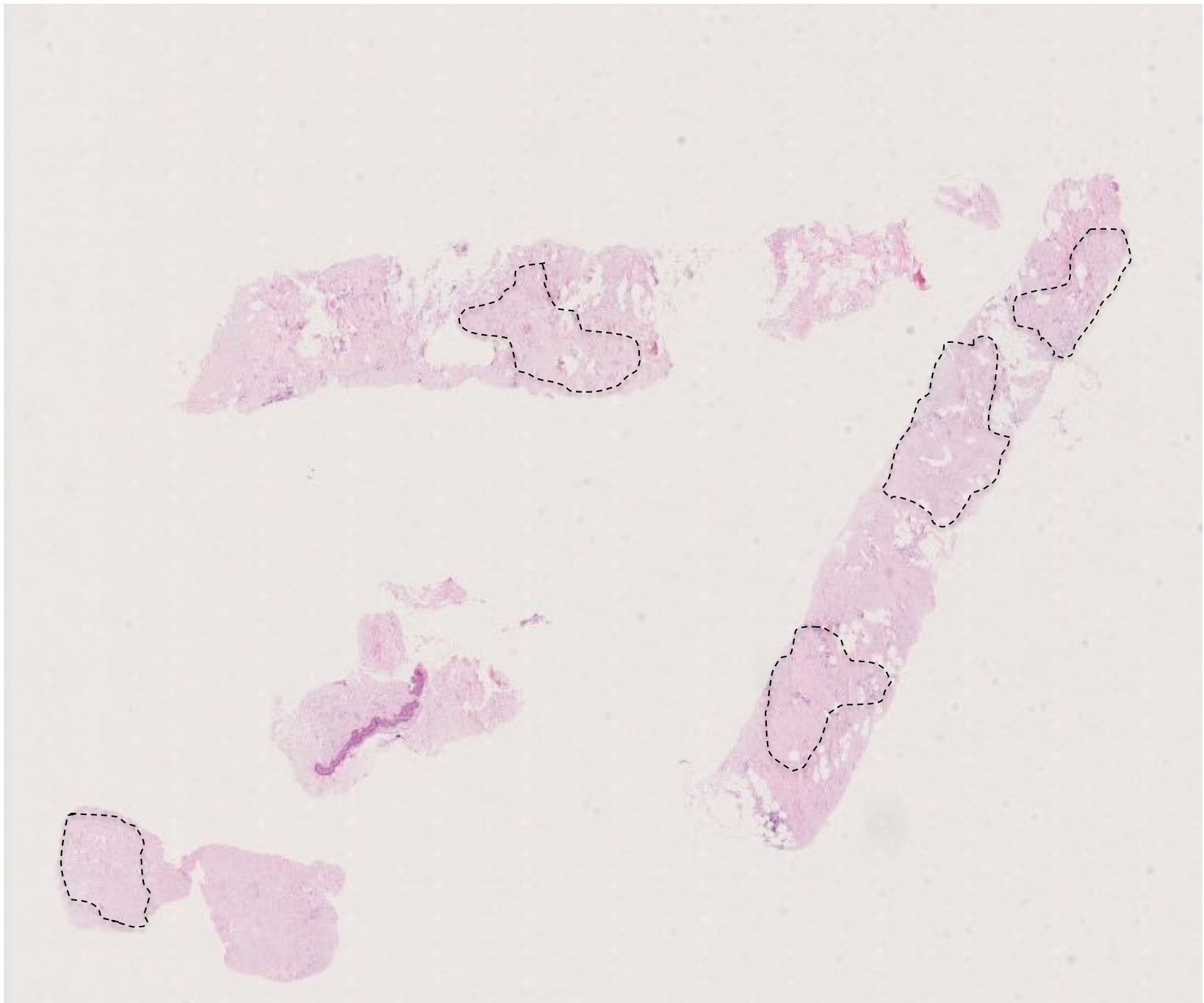


Clinical details

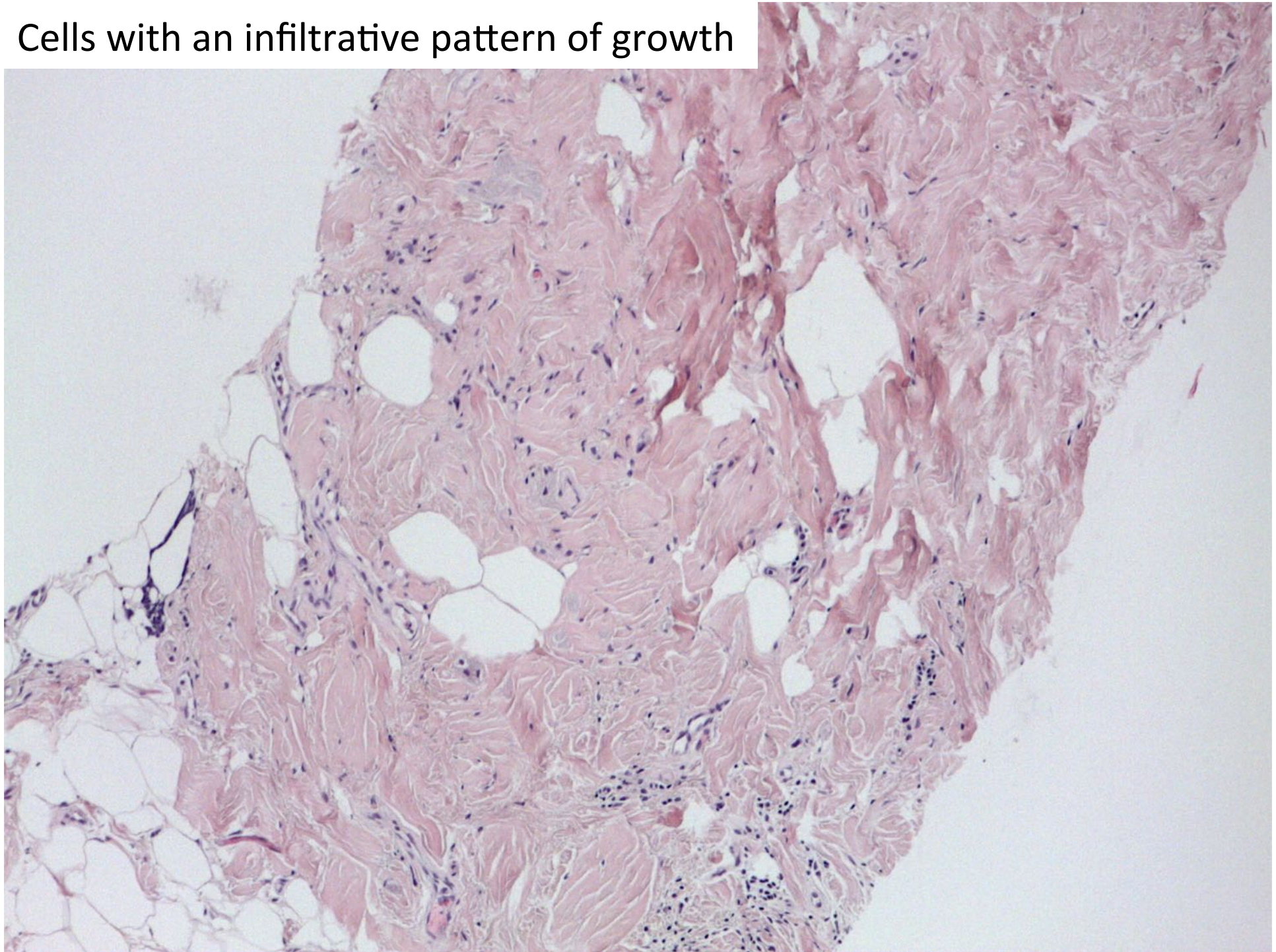
- F, 68 yo
- Screening MX
- Non palpable 4 mm nodule in Q2 dx
- Fibrosis? Carcinoma? Adenosis?
- ACR3



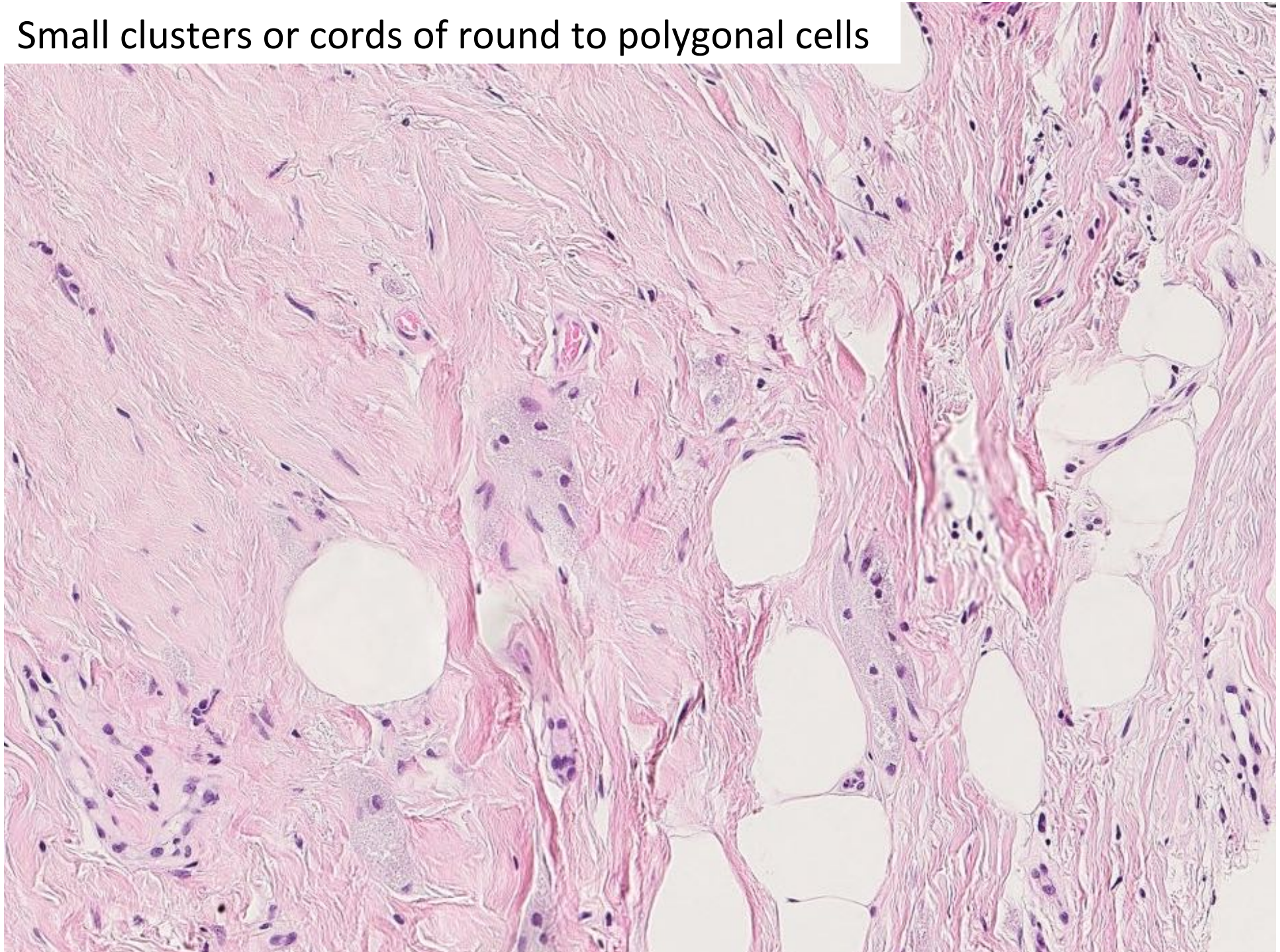




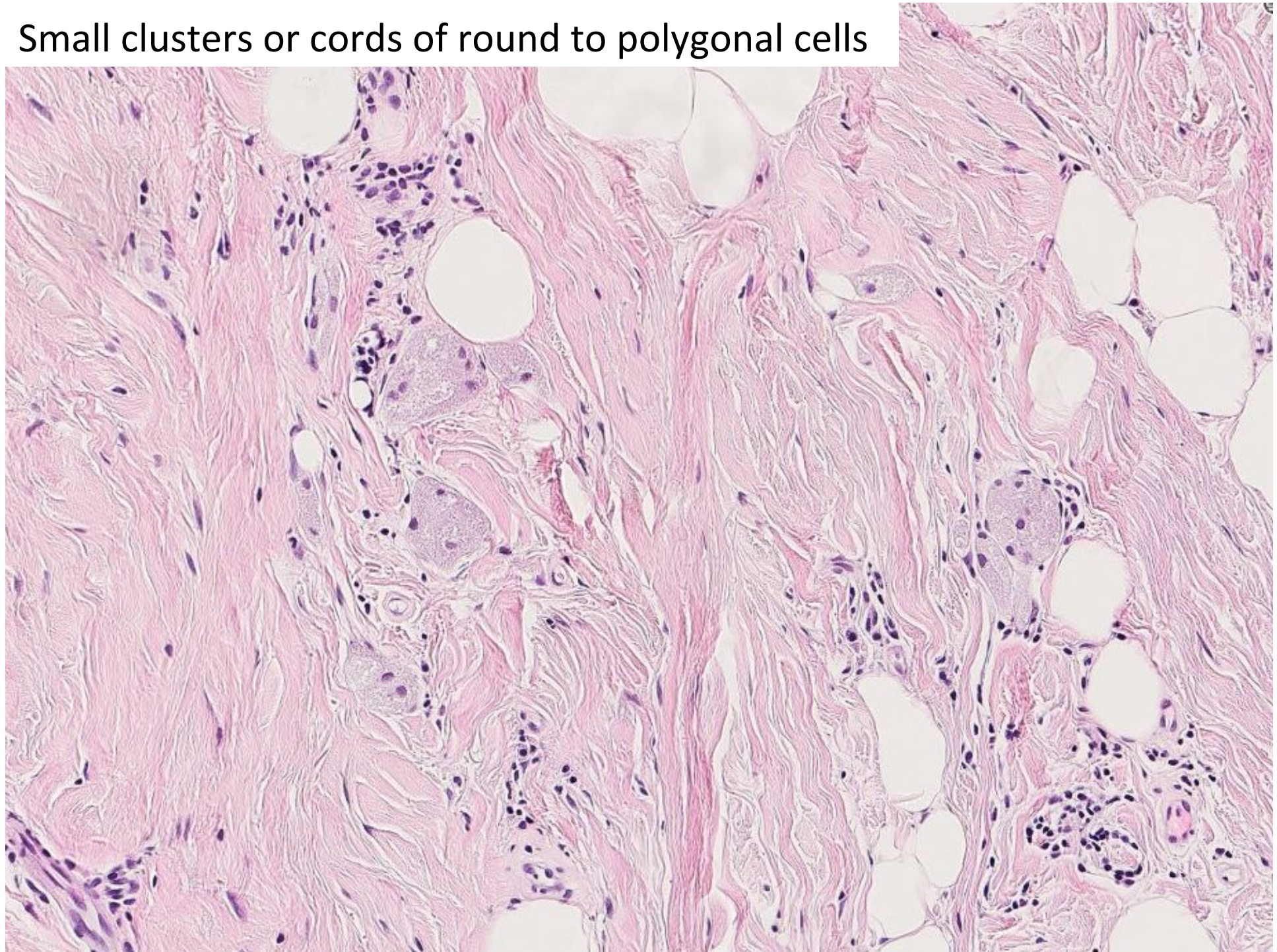
Cells with an infiltrative pattern of growth



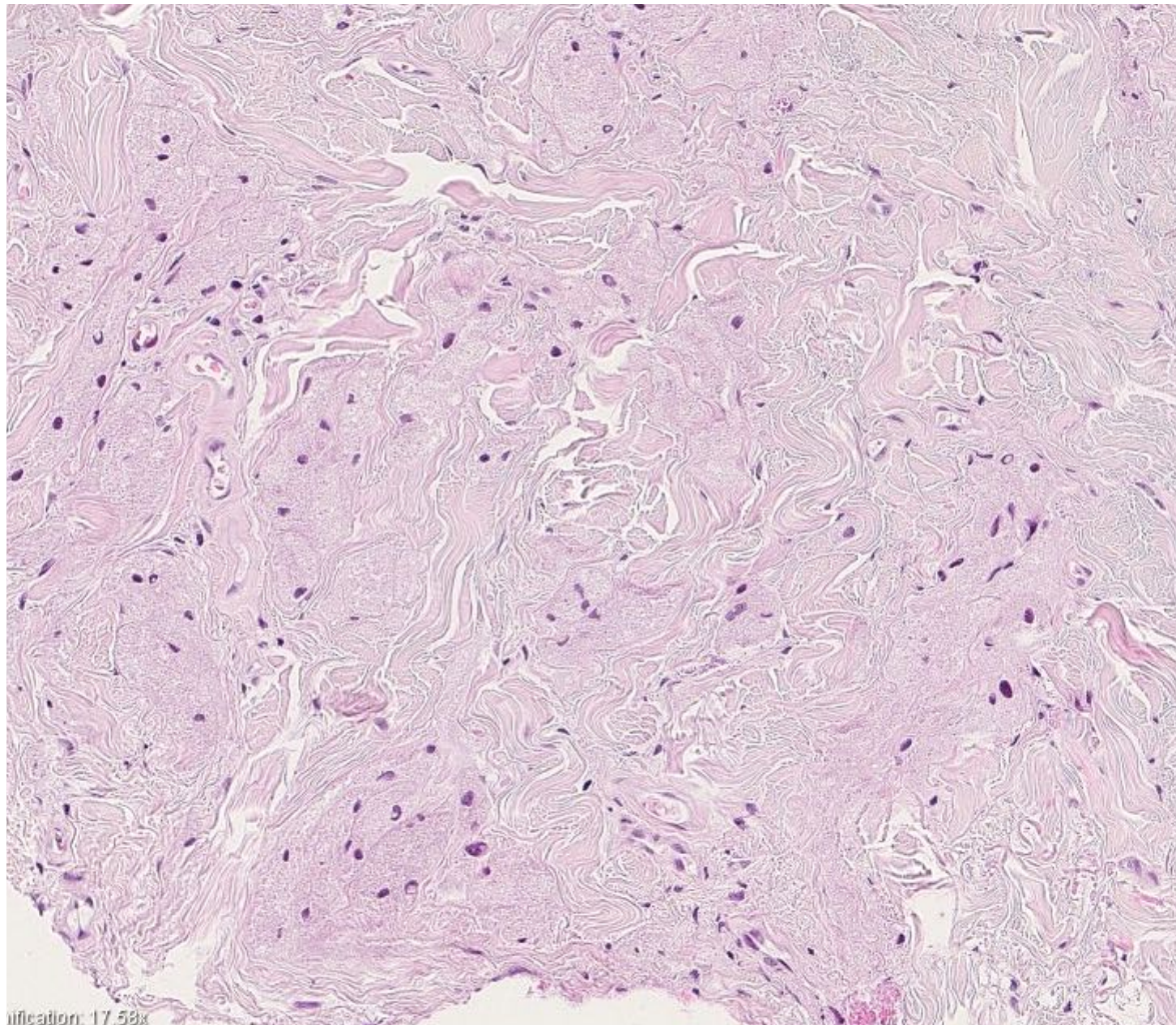
Small clusters or cords of round to polygonal cells



Small clusters or cords of round to polygonal cells

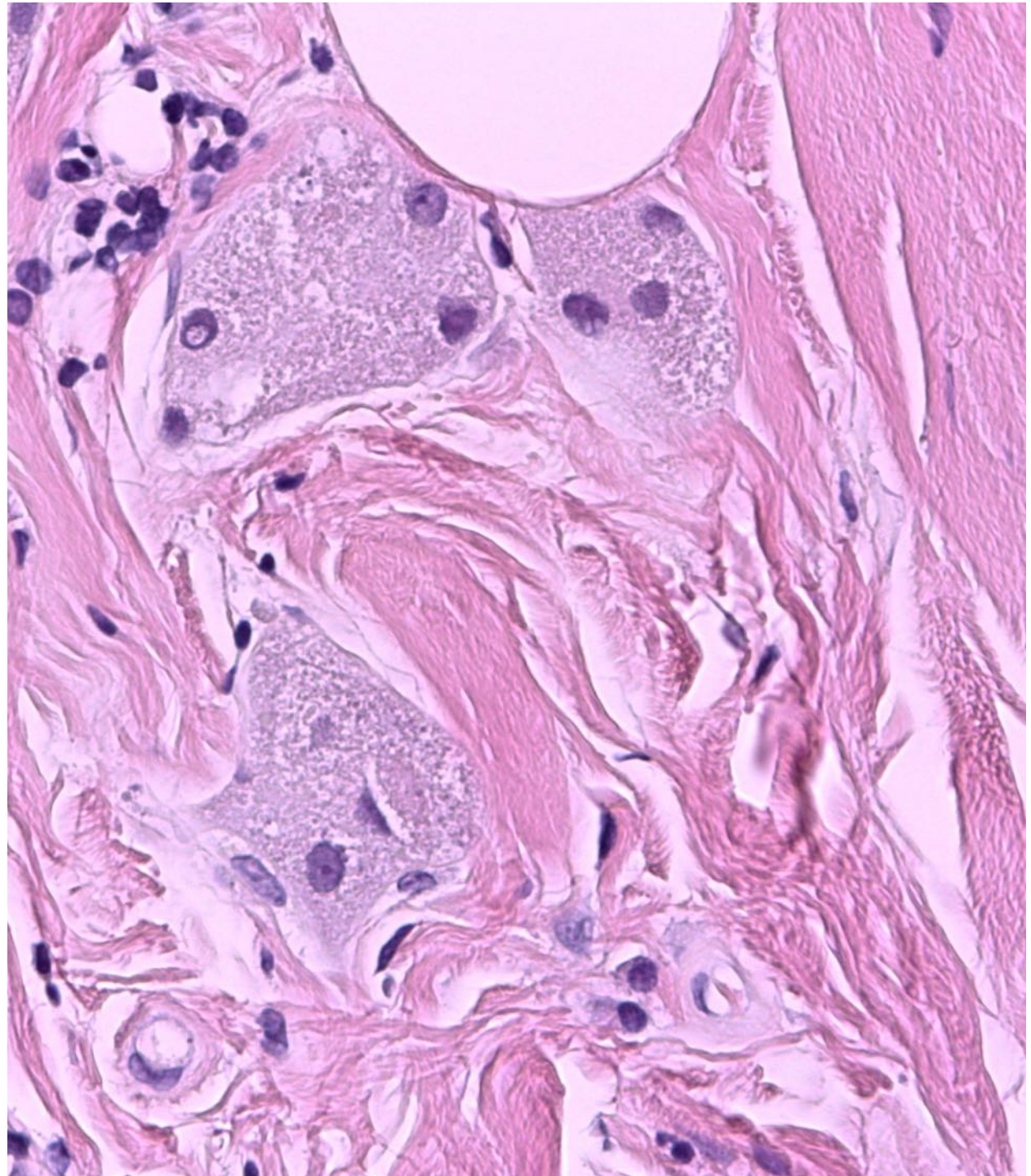


Small clusters or cords of round to polygonal cells
with inconspicuous cell borders

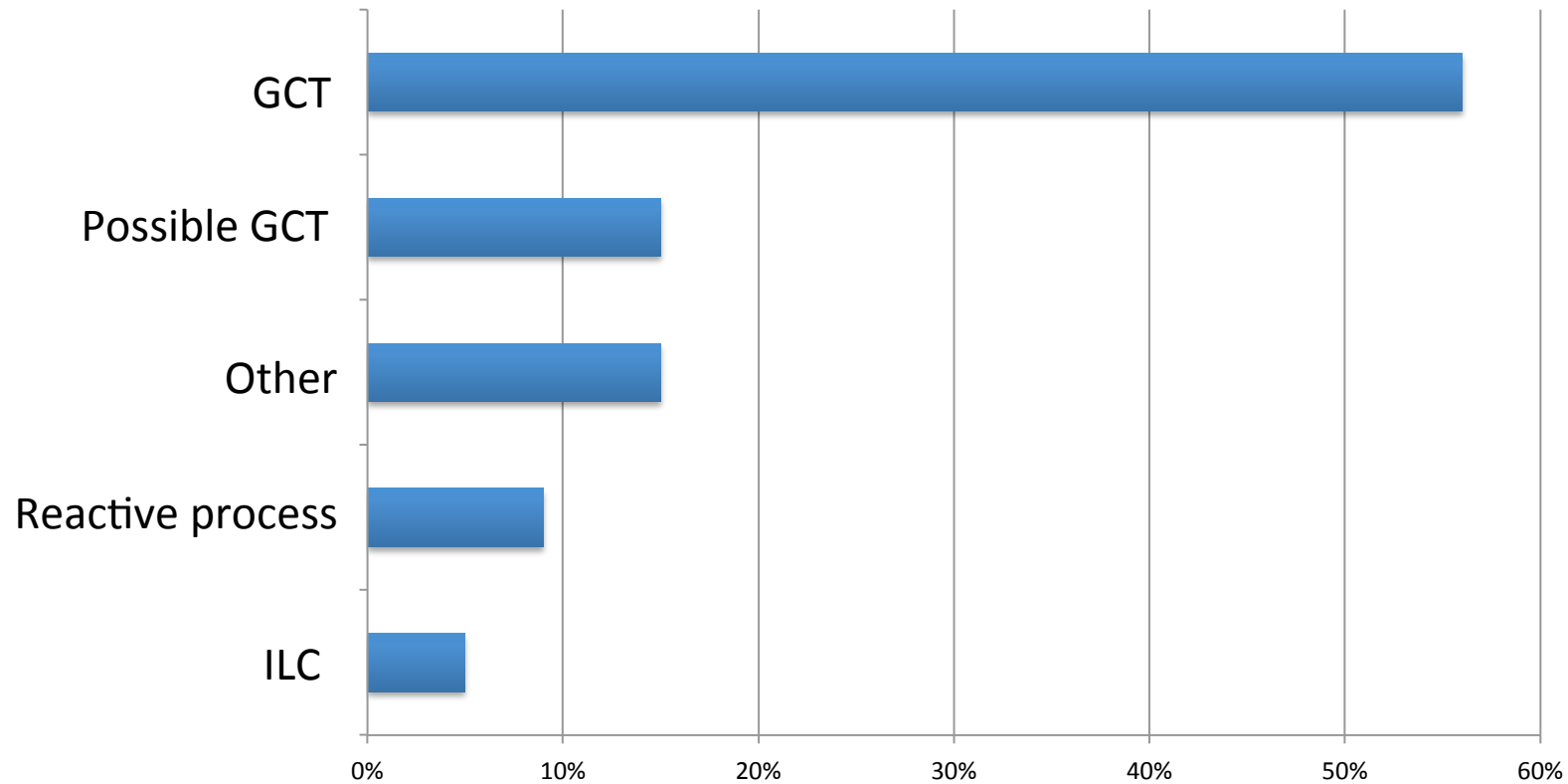


Round to polygonal cells with:

- inconspicuous cell borders
- abundant *granular eosinophilic cytoplasm*
- *small round to oval nuclei* with a vesicular chromatin pattern and discernible nucleoli

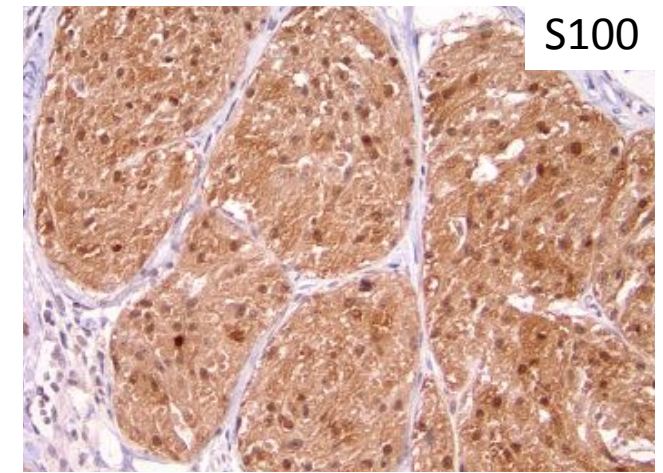
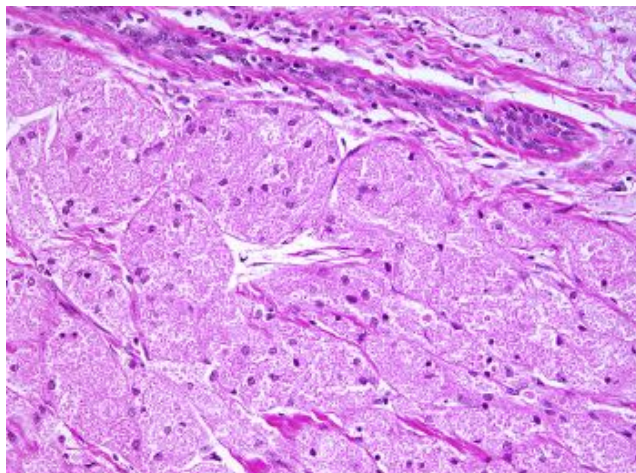
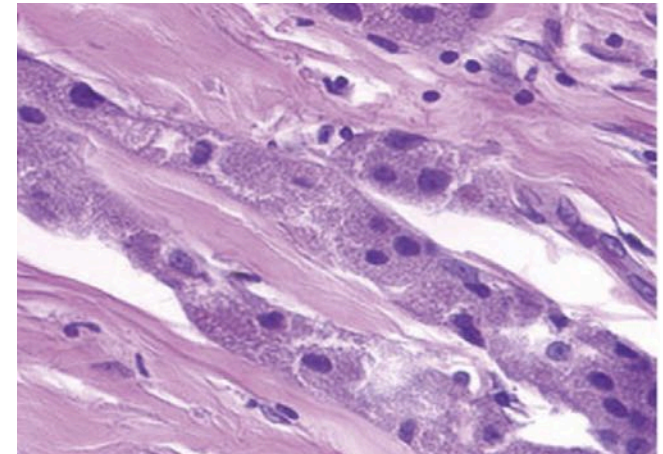
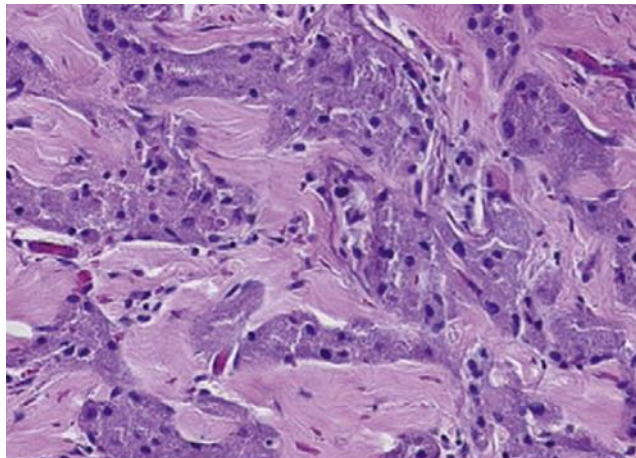


Possible diagnosis?



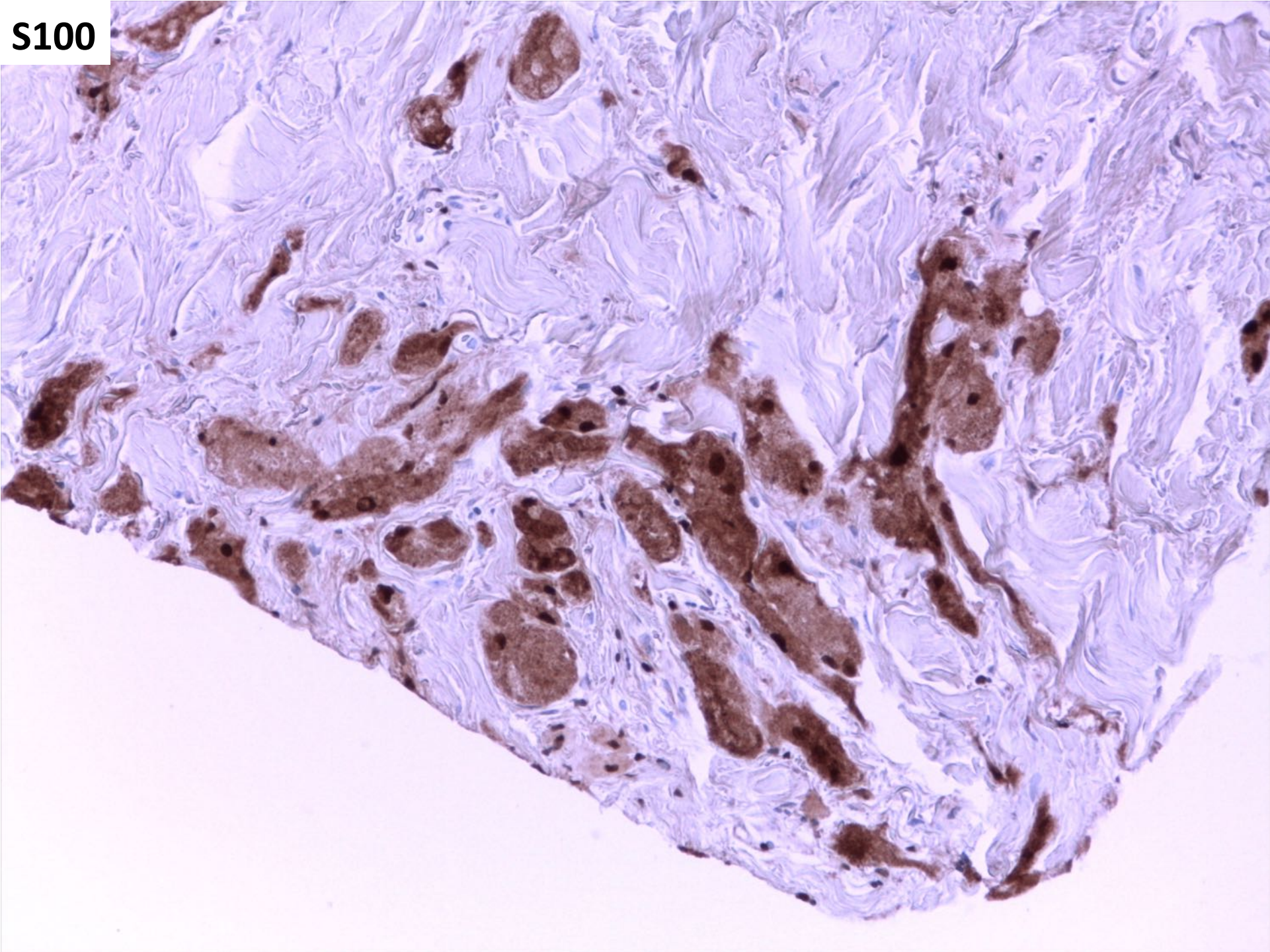
Possible diagnosis?

Granular cell tumor?

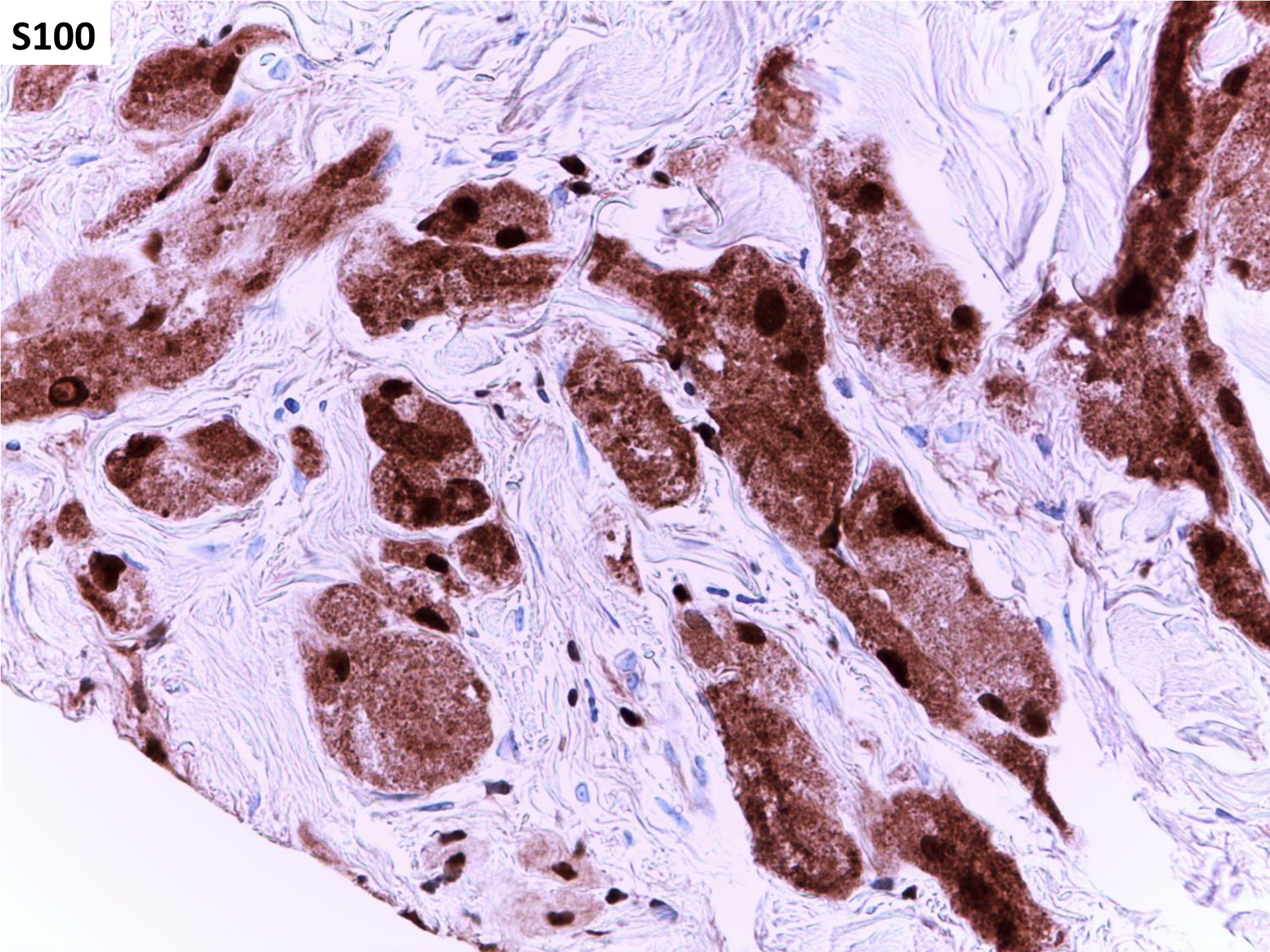


Images from:
Rekhi B et al, Annals of Diagnostic Pathology 2010
Touros VF et al, Pathology 2017

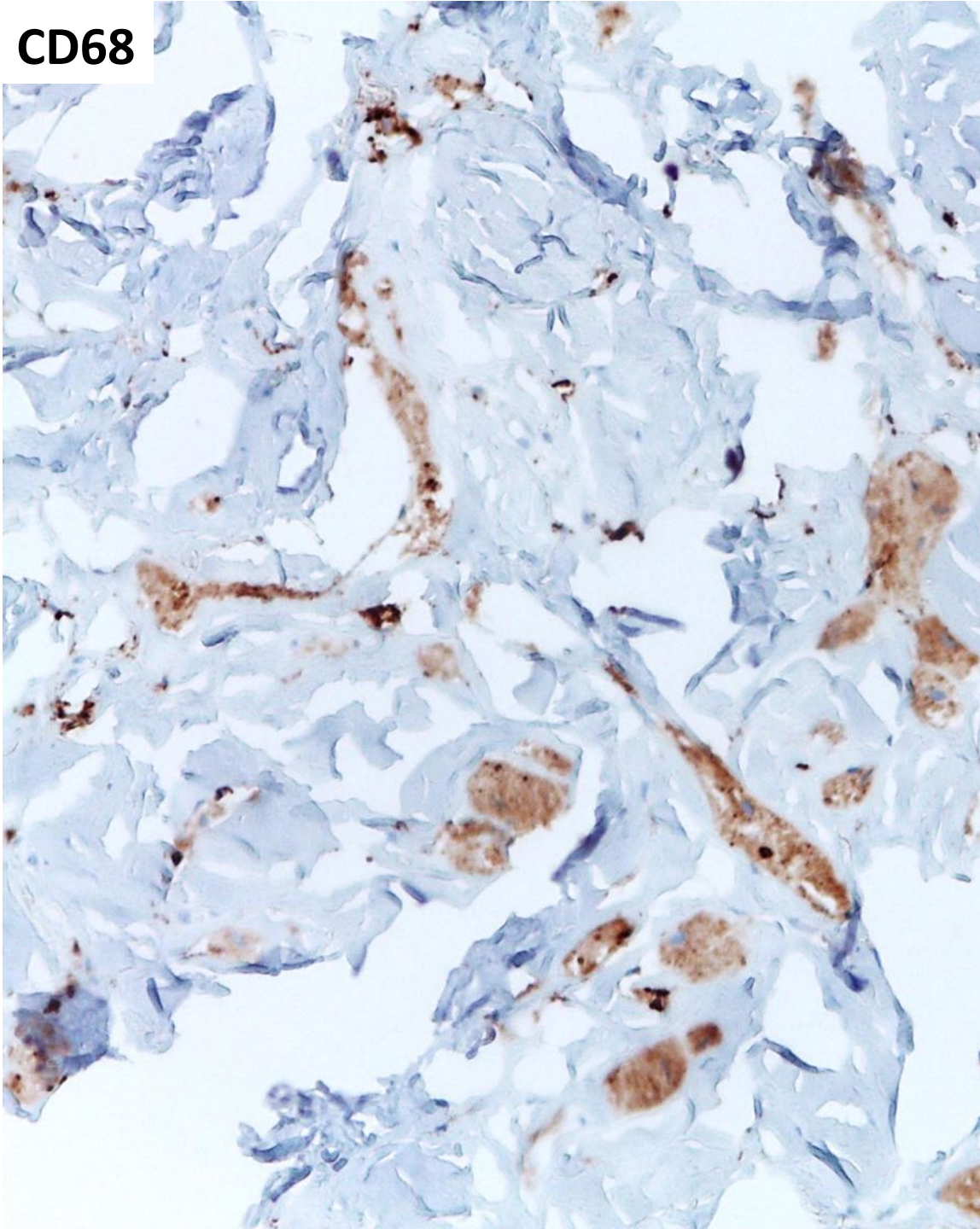
S100



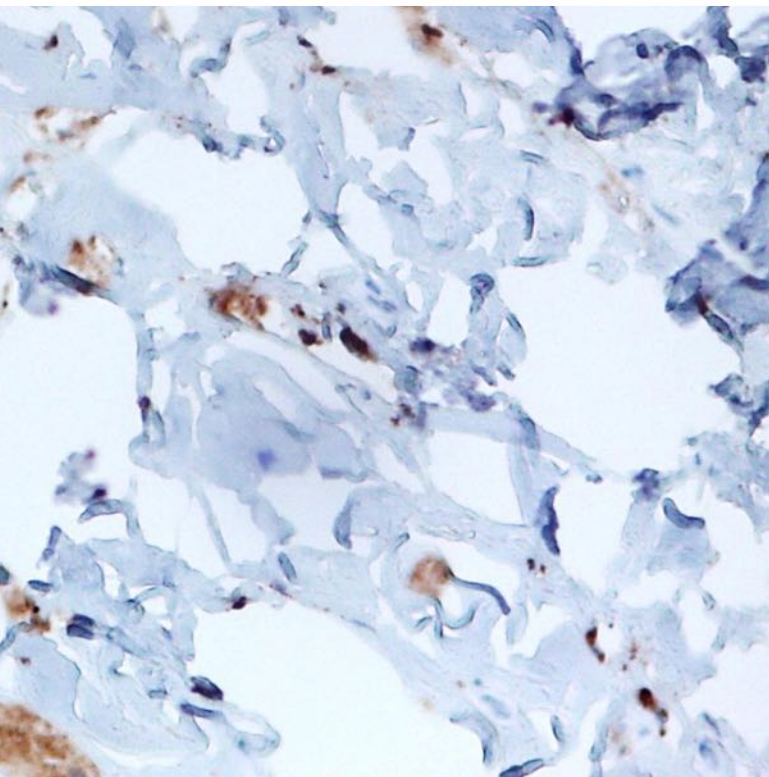
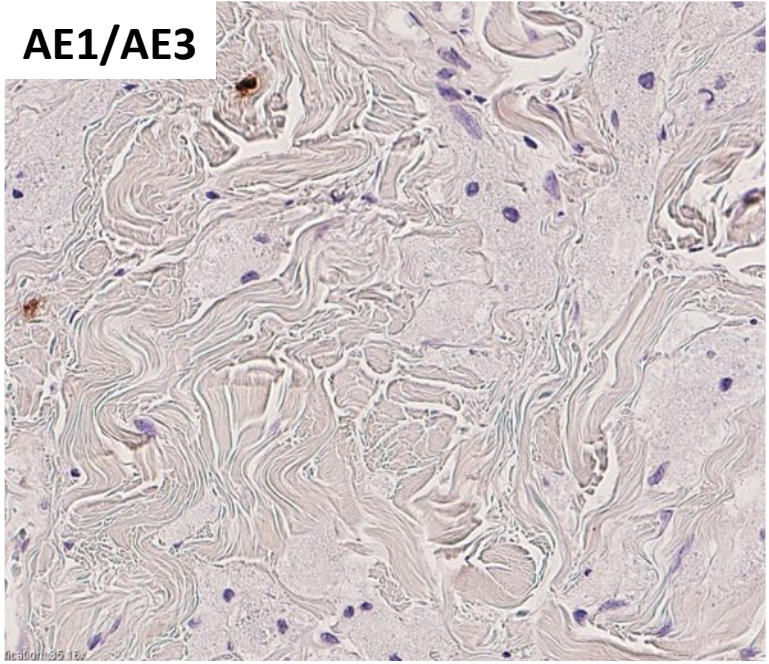
S100



CD68

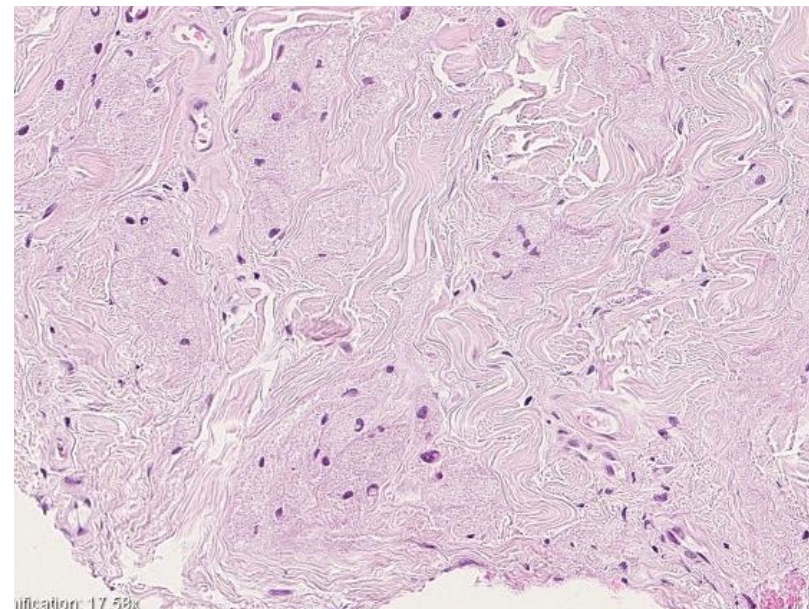
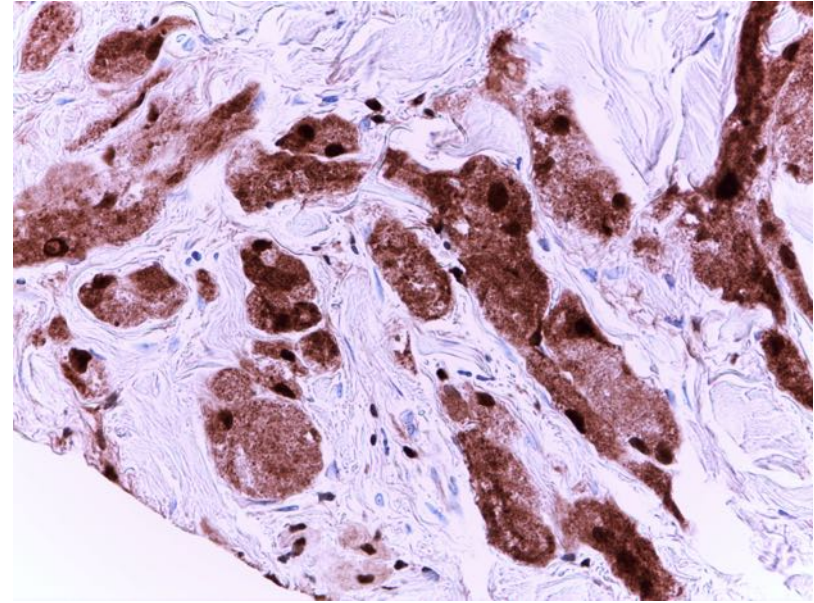


AE1/AE3



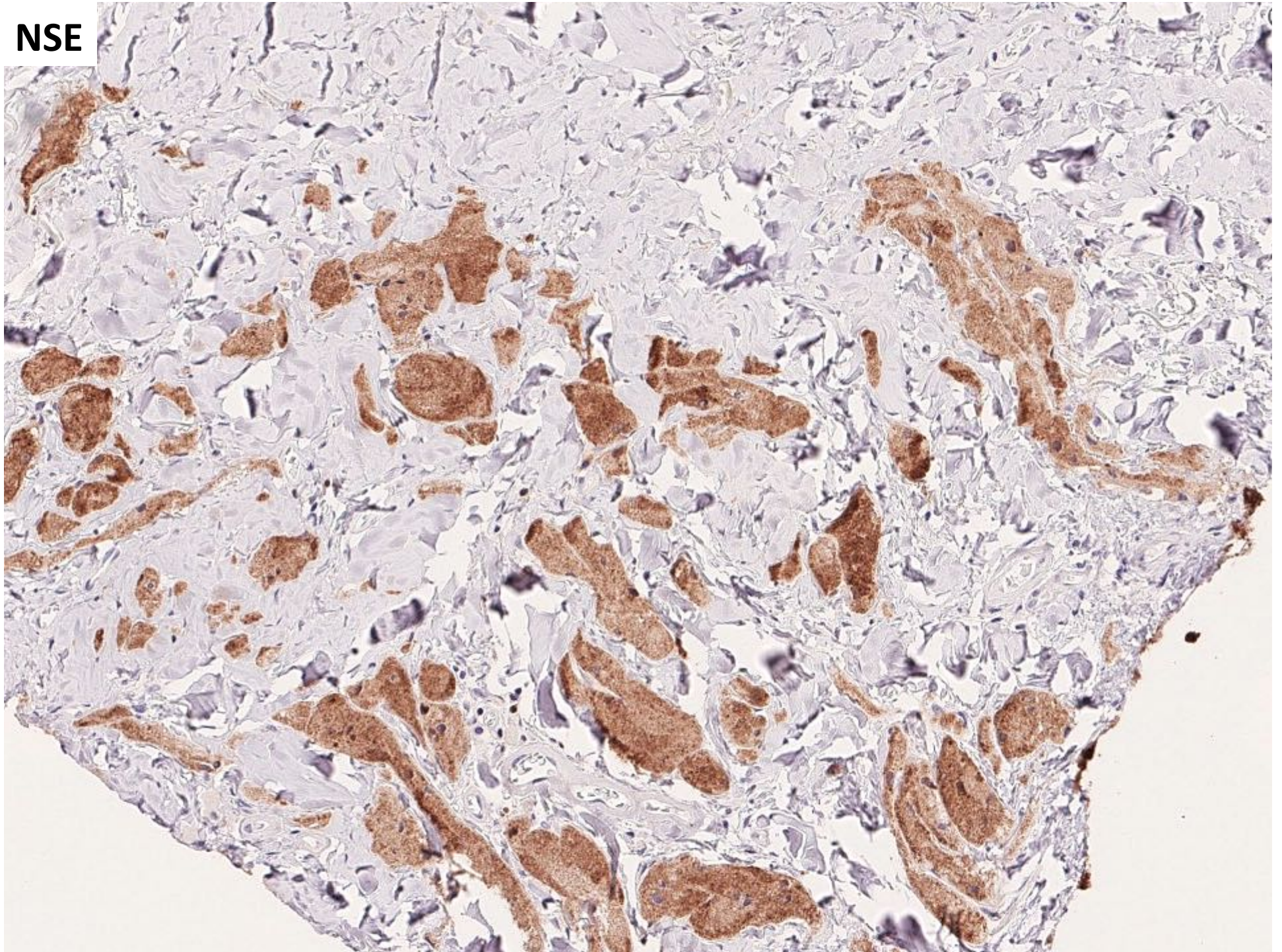
Pros for a GCT

- Infiltrative pattern of the cells within a collagenous stroma
- Strong S100 positivity
- Clinical and radiological findings
- *Occasionally the collagenous stroma is prominent and granular cells are sparse, which can hinder diagnosis via core biopsy*



WHO 2012

NSE



GCT – cell of origin

- It was originally believed to have its origin from skeletal muscle that led to its initial terminology as a *granular cell myoblastoma*
- A schwannian origin has been found to be the most accepted histogenesis of a GCT
 - S100/NSE expression
 - ultrastructural confirmation of schwannian differentiation

GCT – clinical findings

- It occurs throughout the body
- *occasionally found in the breast (1 GCT in 1000 breast cancer cases)*
- typically in women between puberty and menopause
- most frequently in the fourth to sixth decades
- more commonly in African-American than in Caucasian women

GCT – clinical findings

- they tend to occur more commonly in the upper, inner quadrant (in contrast to invasive carcinomas, which occur more frequently in the outer quadrant)

GCT as a mimicker

- Granular cell tumours may be *mistaken for carcinoma* clinically, radiologically, and on gross examination

Differential diagnoses

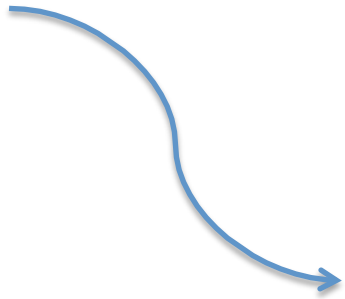
- Carcinoma
- Fat necrosis
- Histiocytic proliferations (histiocytic neoplasms, granulomatous inflammations)

Compared with a carcinoma

- Less cytologic atypia
- Different immunophenotype (Ck-/S100+)
- Look for DCIS

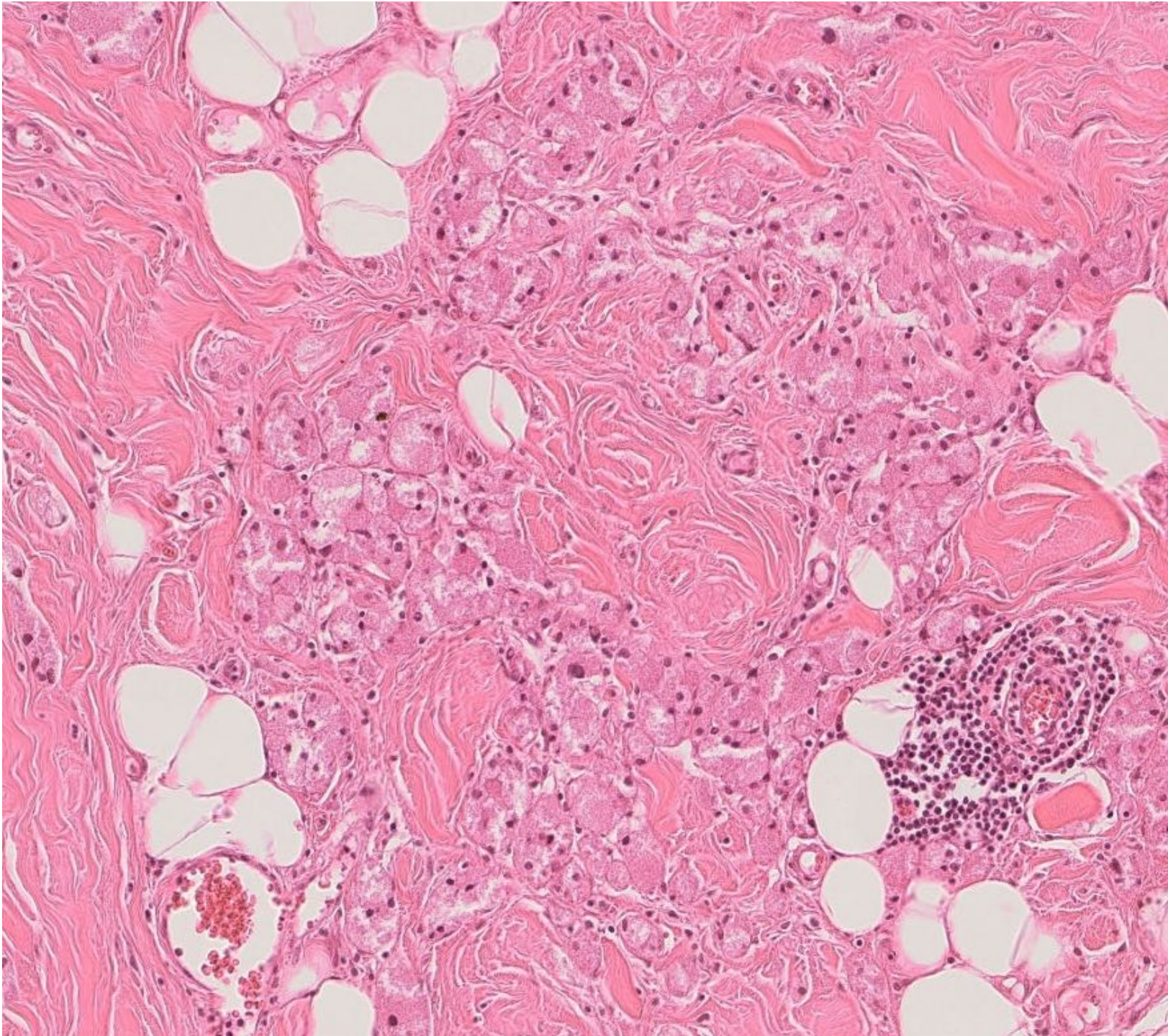
Compared with fat necrosis

- CD68 and S100 expression in both



intracytoplasmic lysosomes in GCT cells

- Clinical and radiological findings



Slide Seminar – Case #14

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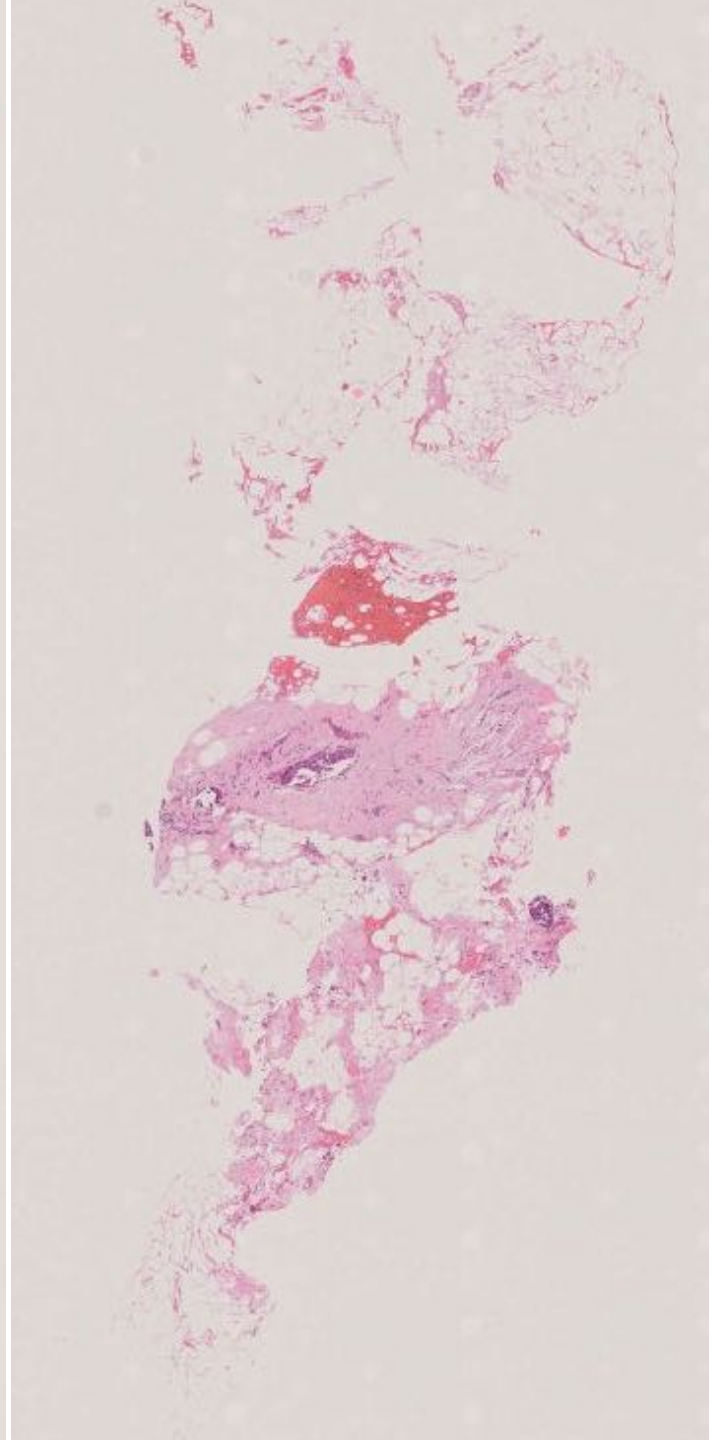
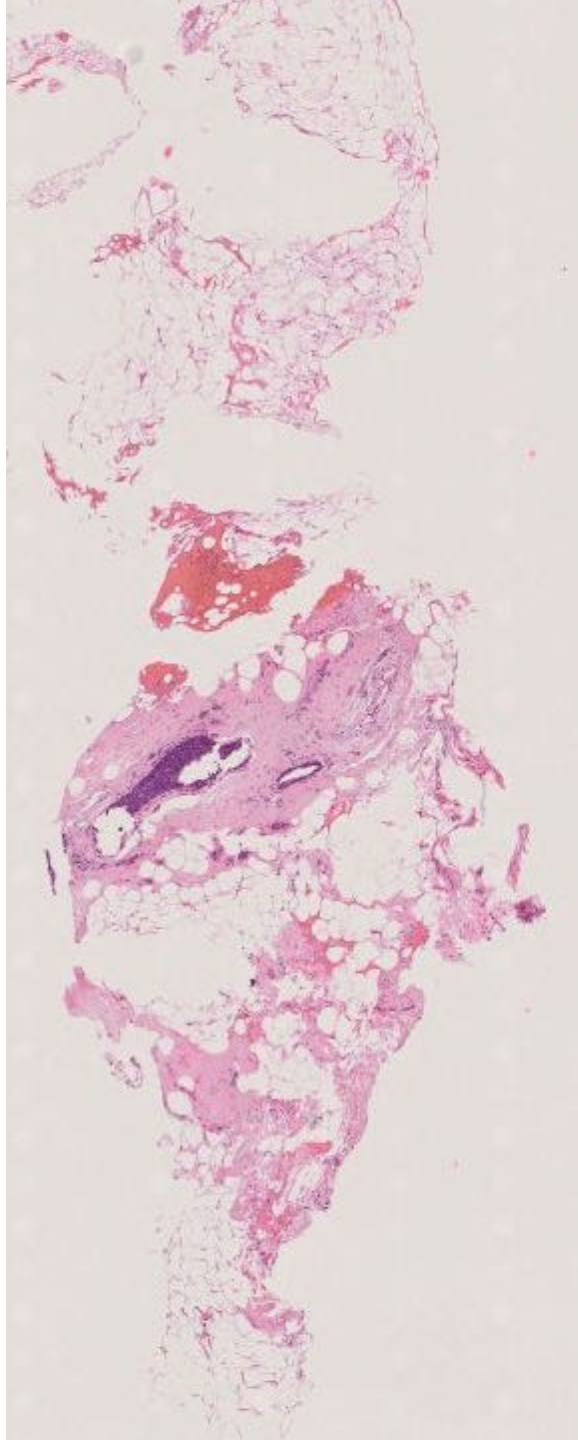
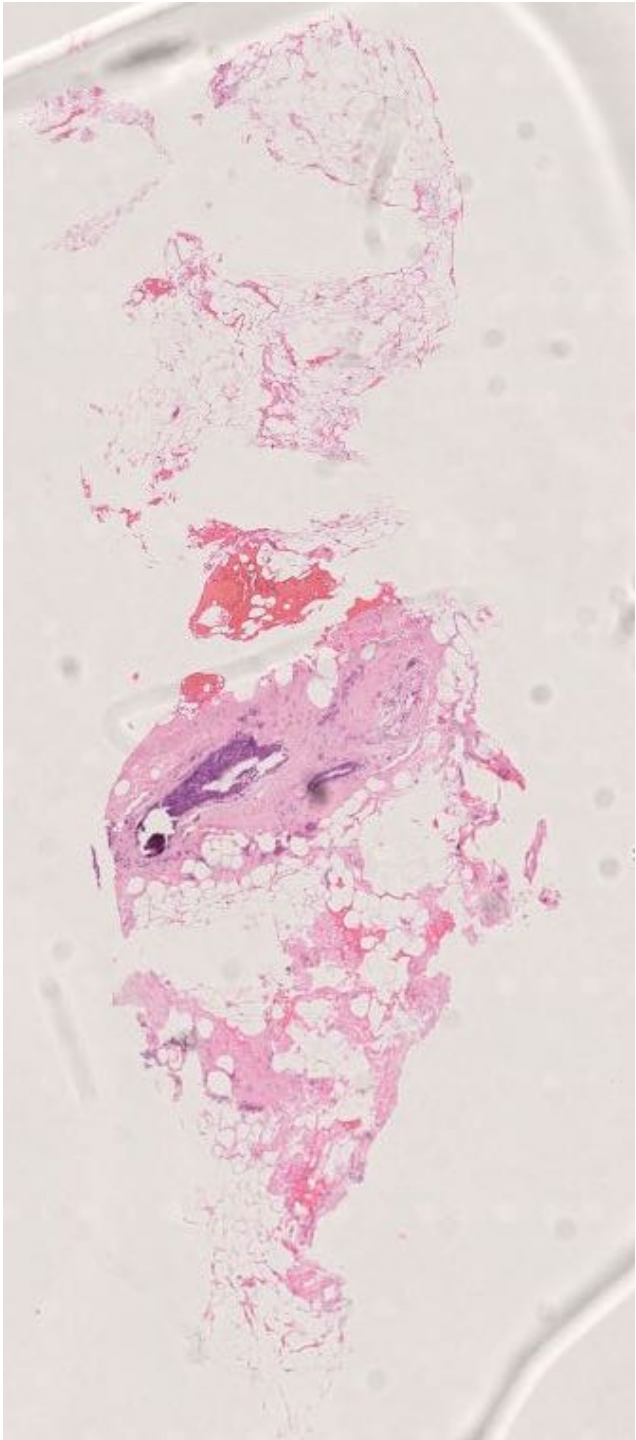
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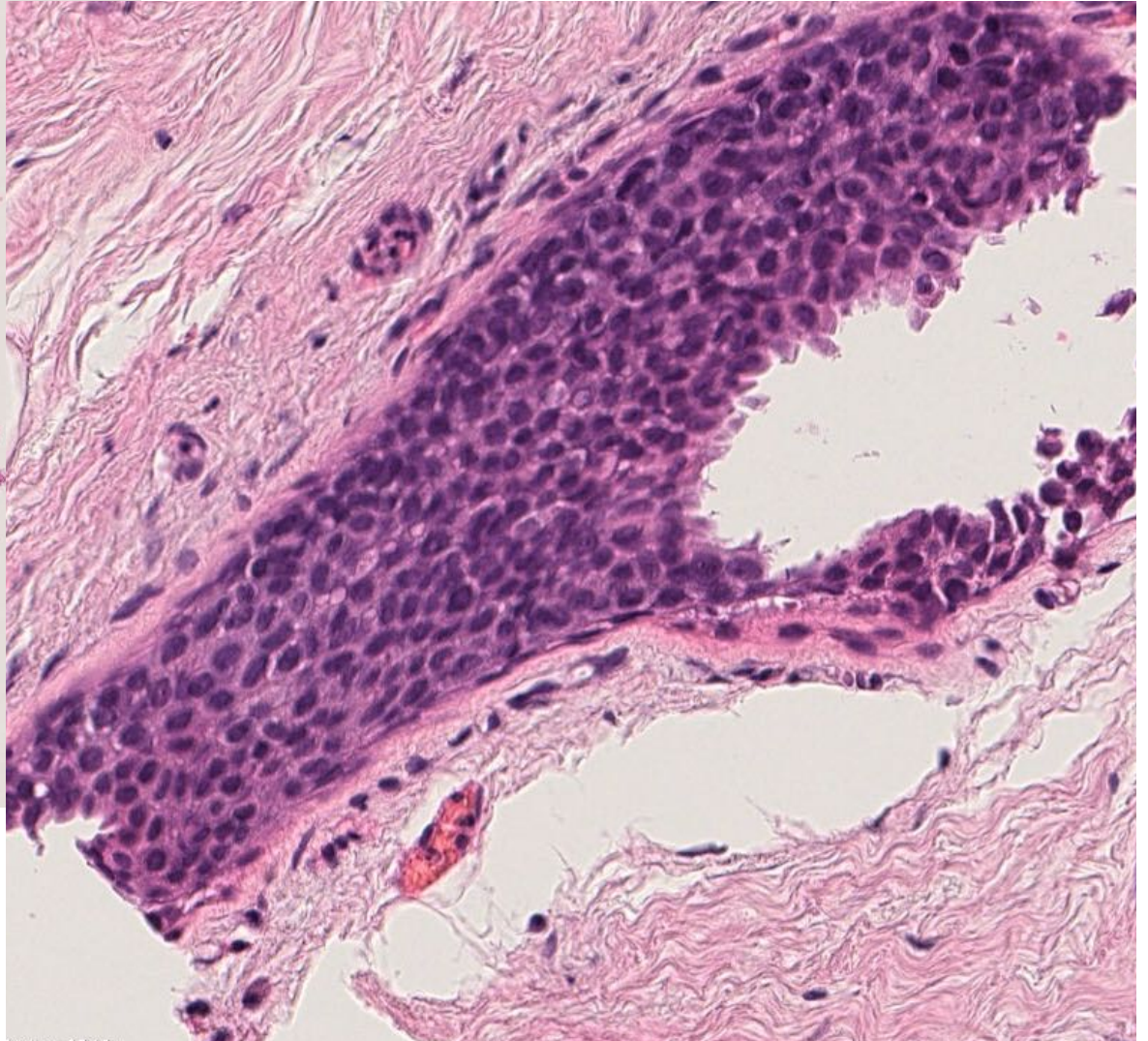
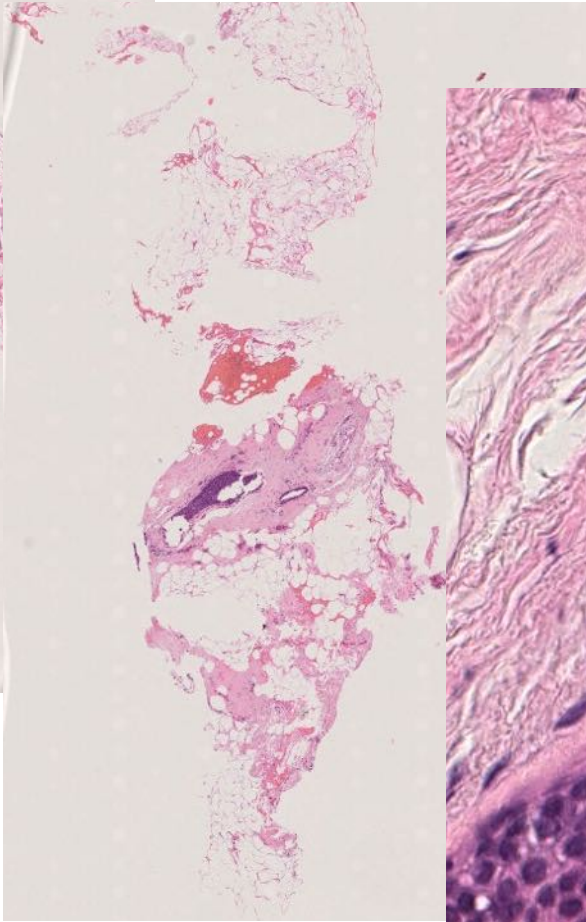
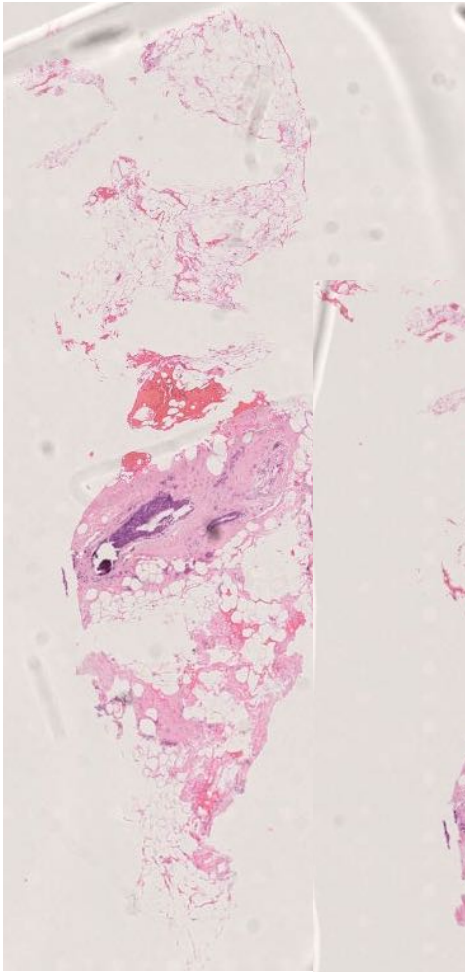
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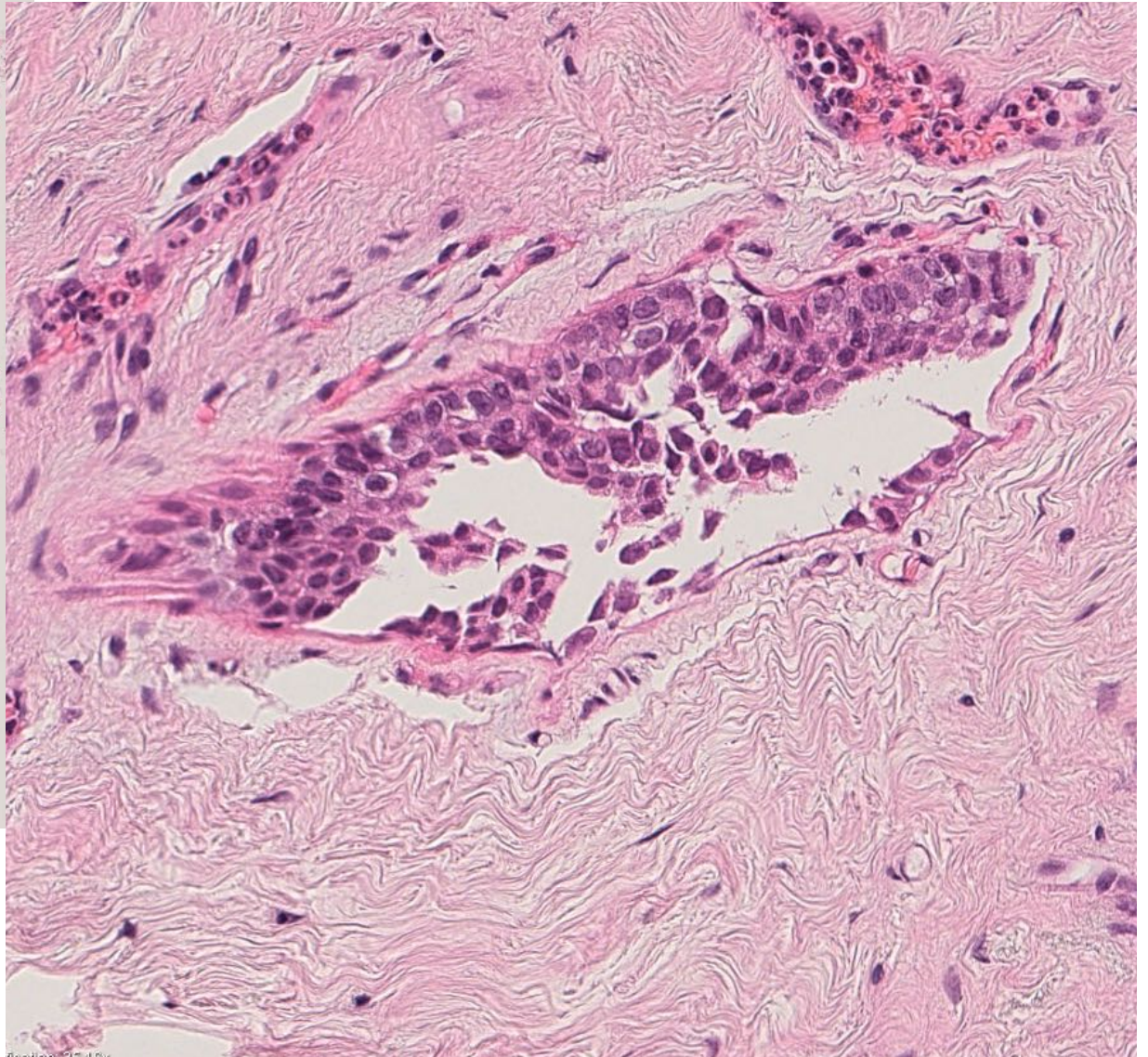
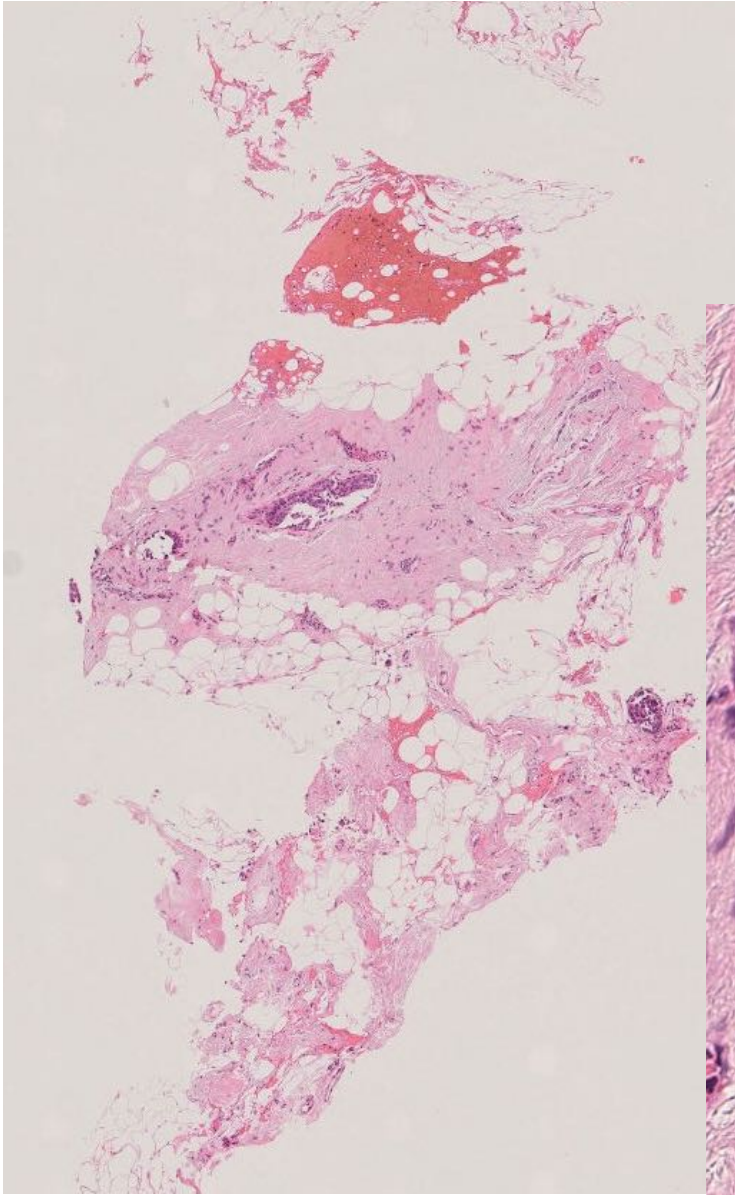


Clinical features

- F, 61 yo
- In Q1 (right breast) group of calcifications (mm 23), predominantly with a linear disposition
- ACR3/ACR4: *in situ* lesion?

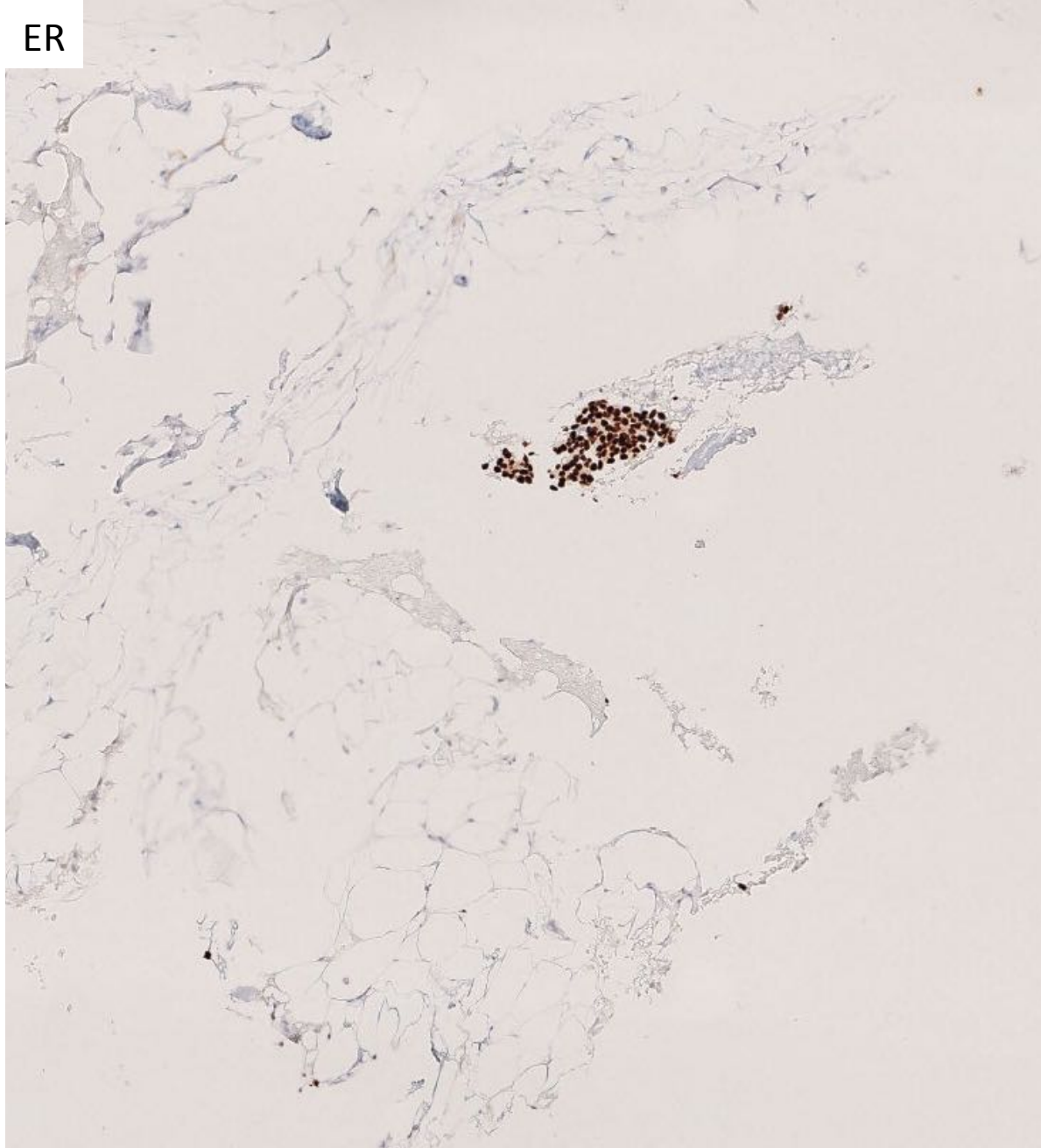






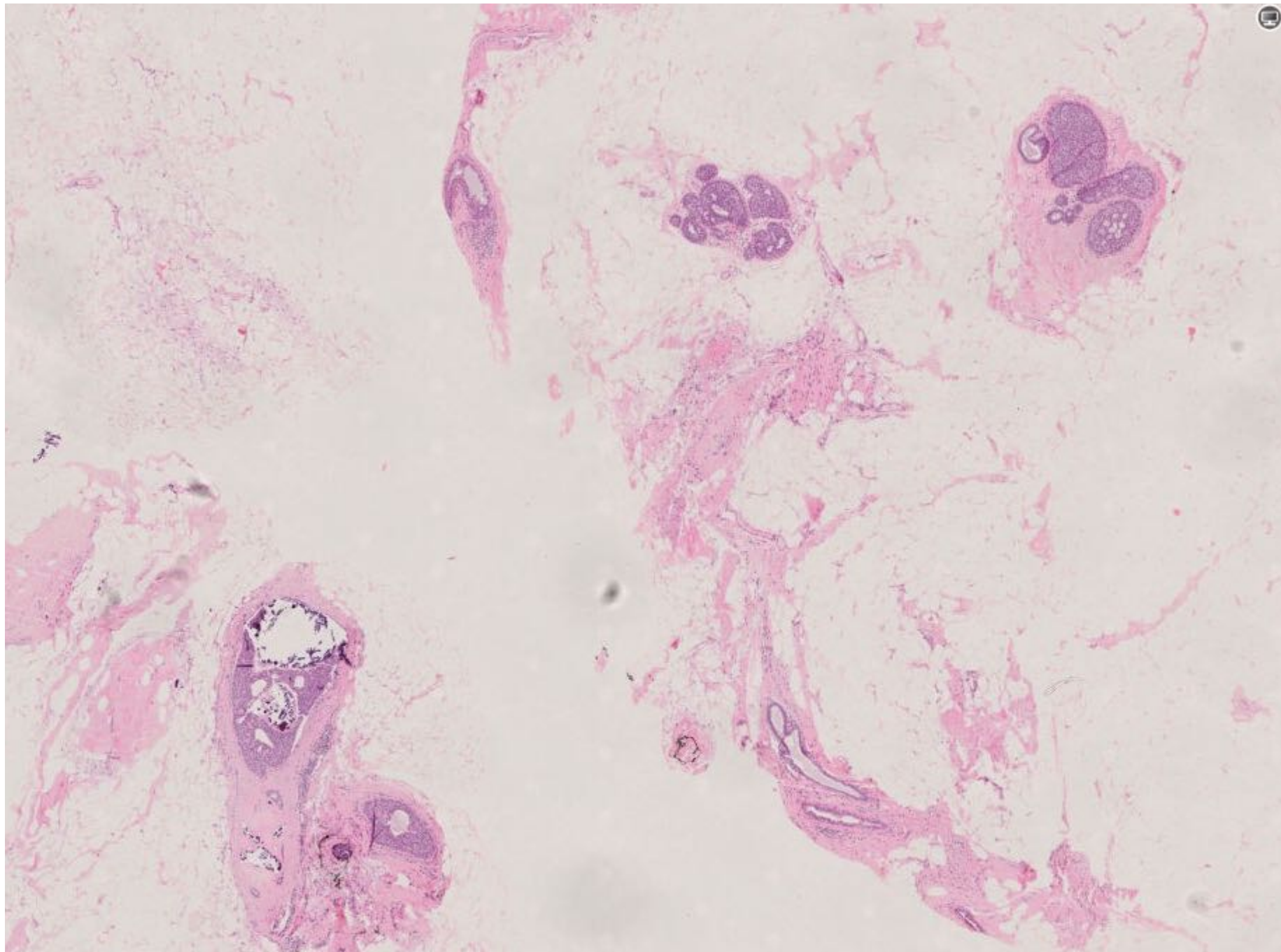
“The affected ducts show calcifications in association with a cellular intraductal epithelial proliferation which does not have the usual appearances of DCIS. IHC should help determine the nature of this proliferation.”

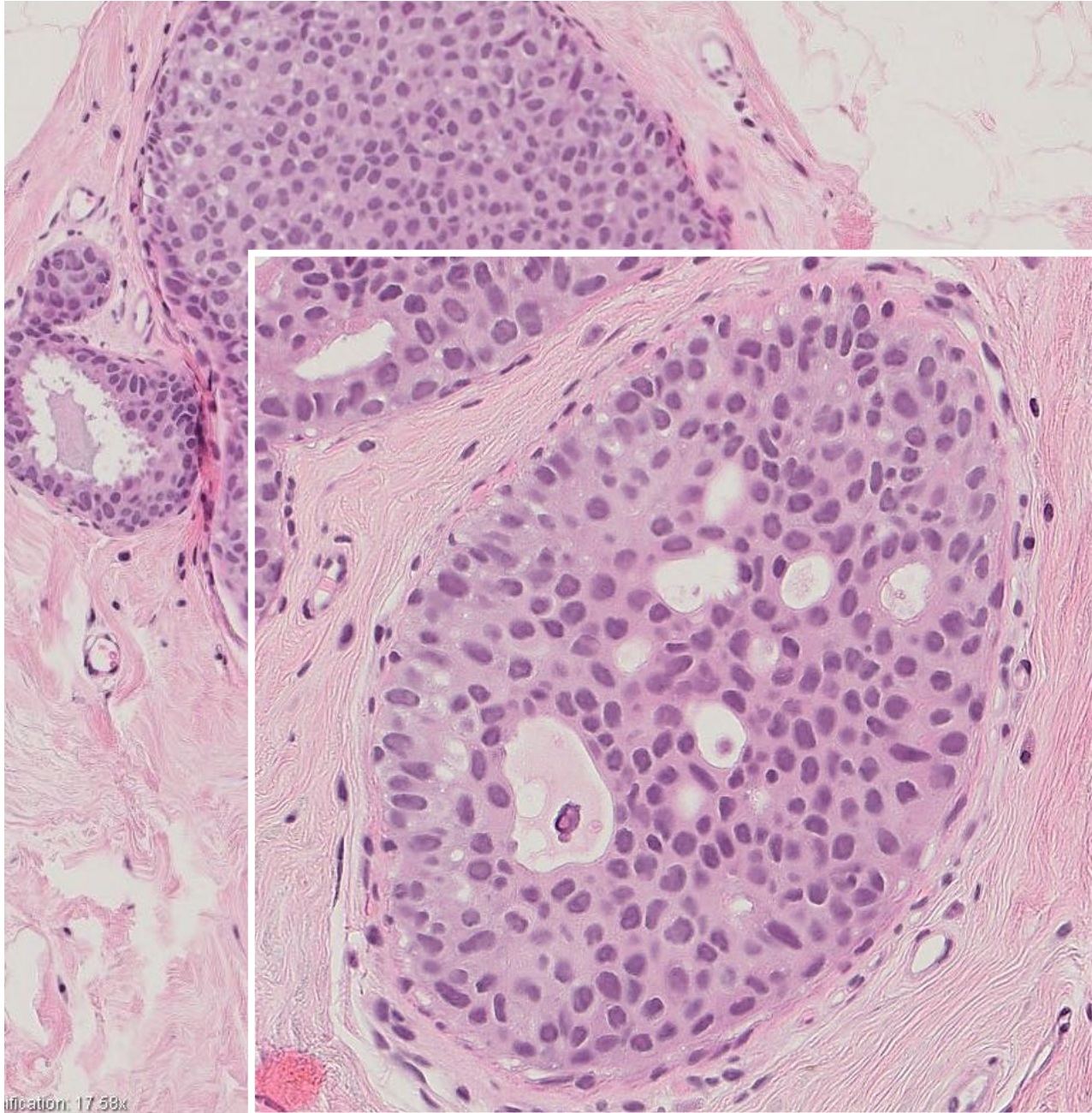
ER

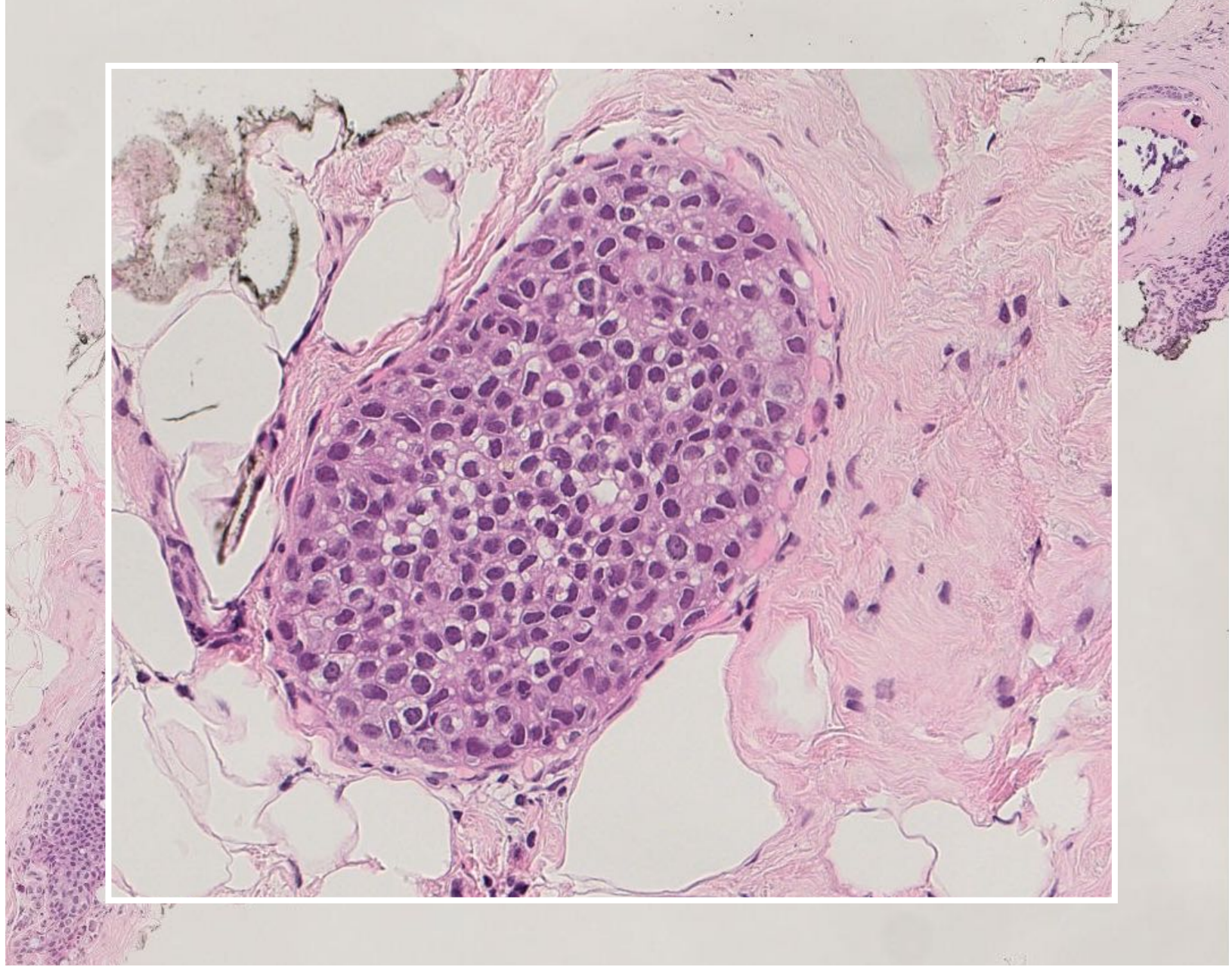


Not enough
material for
Ck5/6

- Described as a breast parenchyma with fatty involution comprising single ductal structure with a calcification.
 - *COMMENT: material under examination limited and fragmented*
- **Discussed at multidisciplinary team meeting**
 - 2nd biopsy planned: VAB



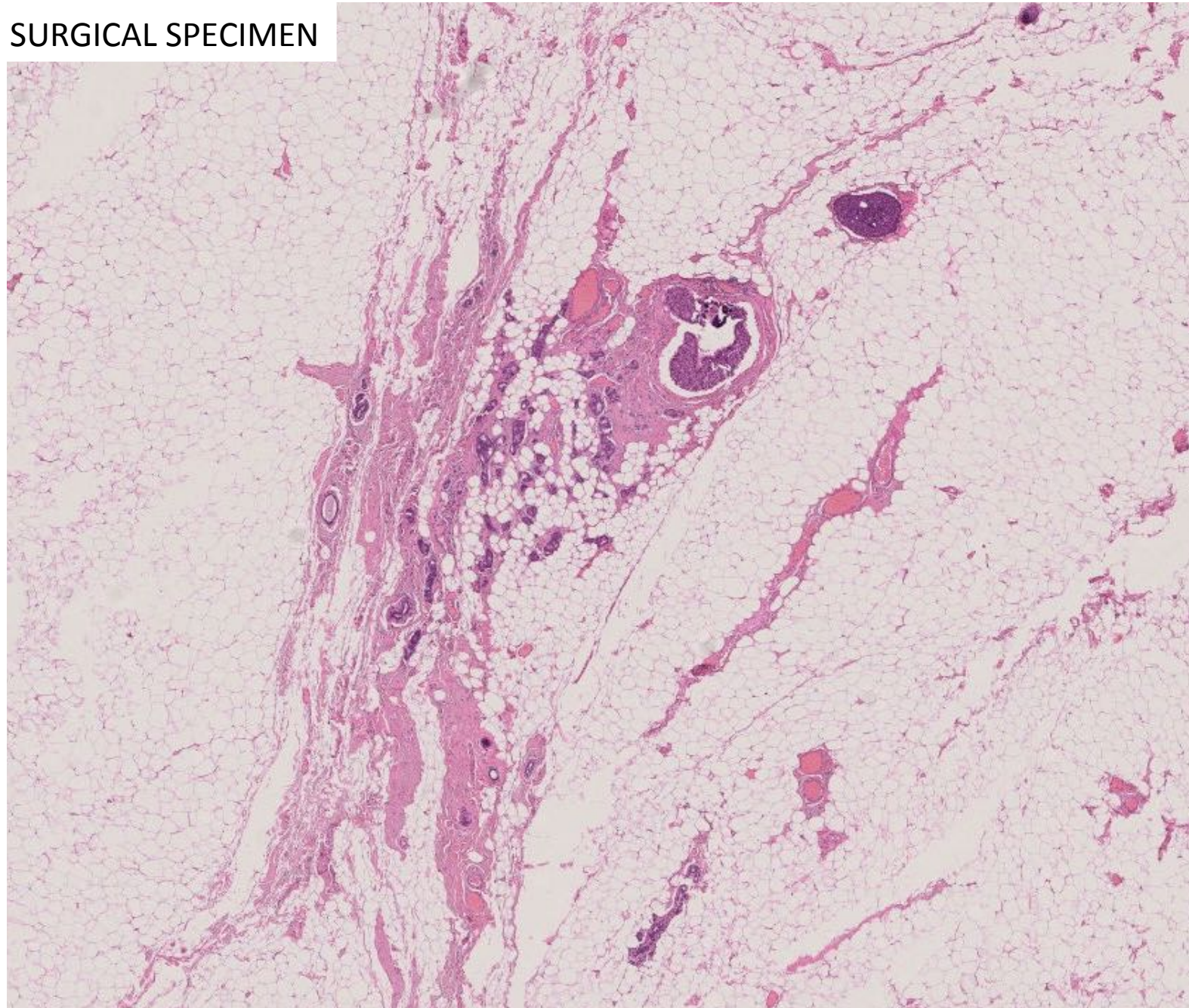




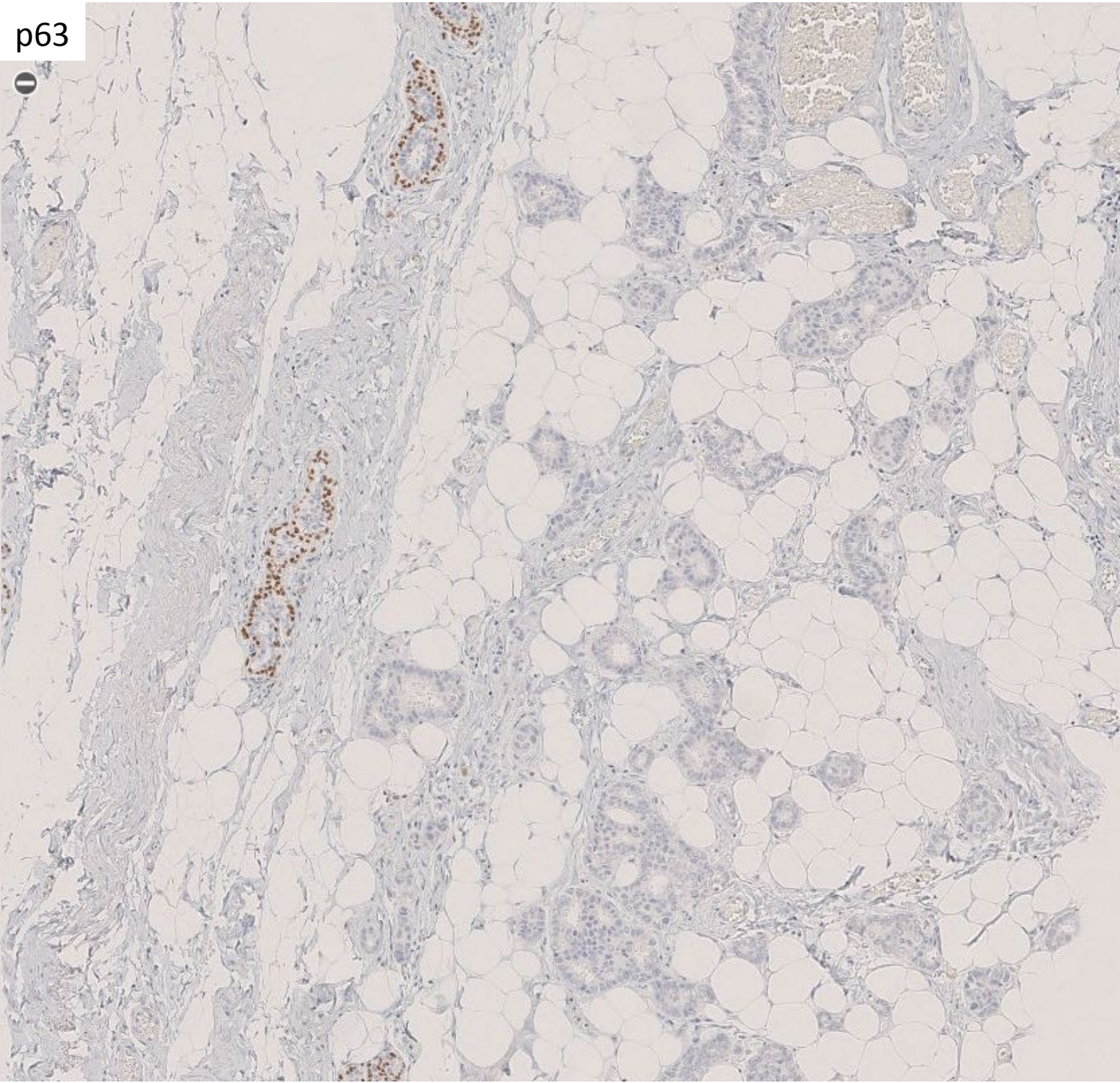
Patient's management

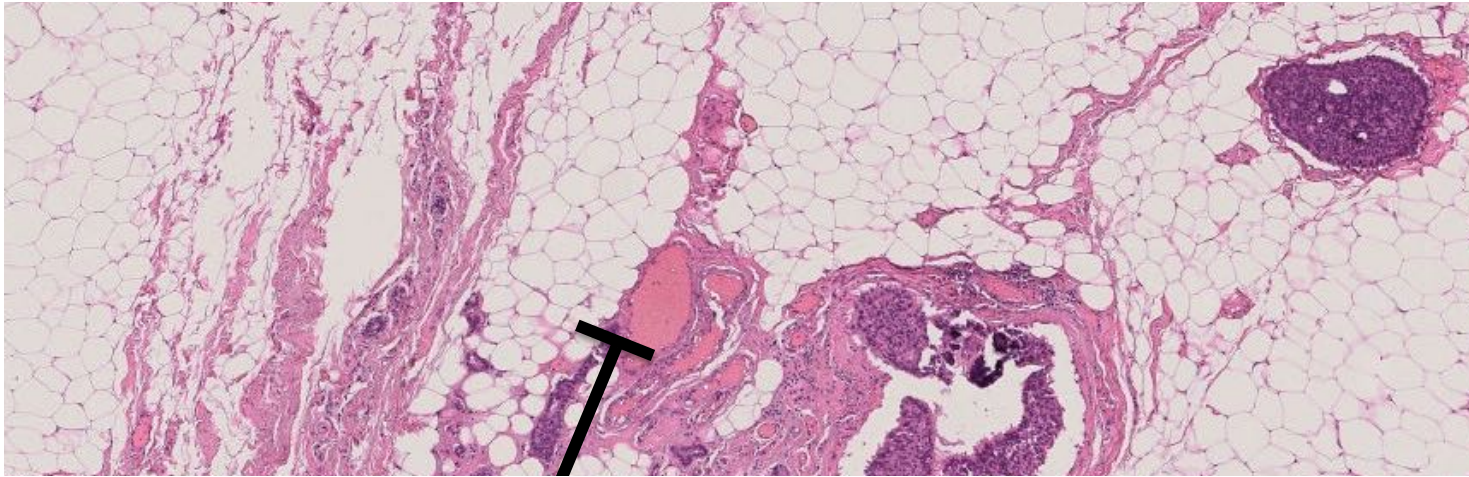
- DCIS of intermediate grade, cribriform and solid architecture
- Wide resection planned

SURGICAL SPECIMEN

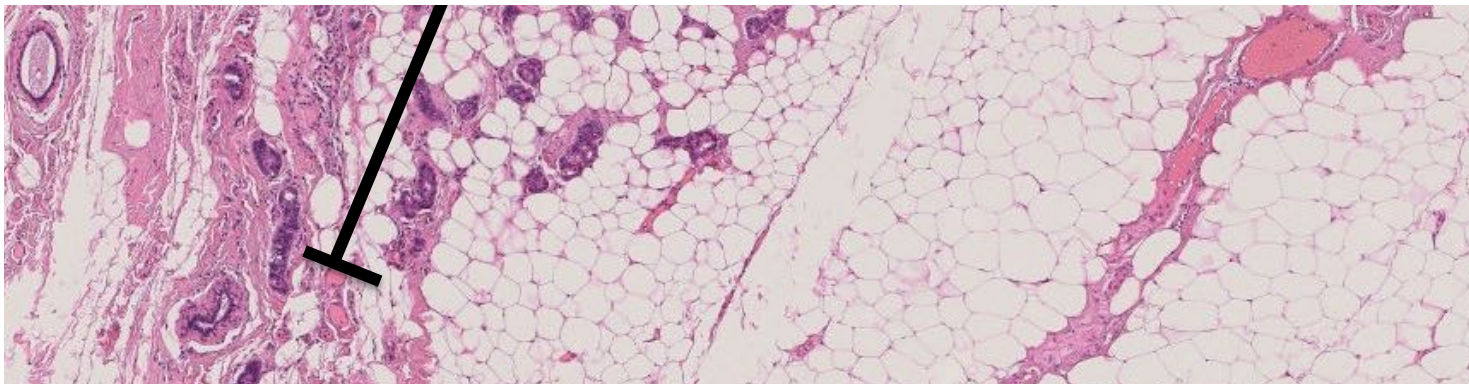


p63





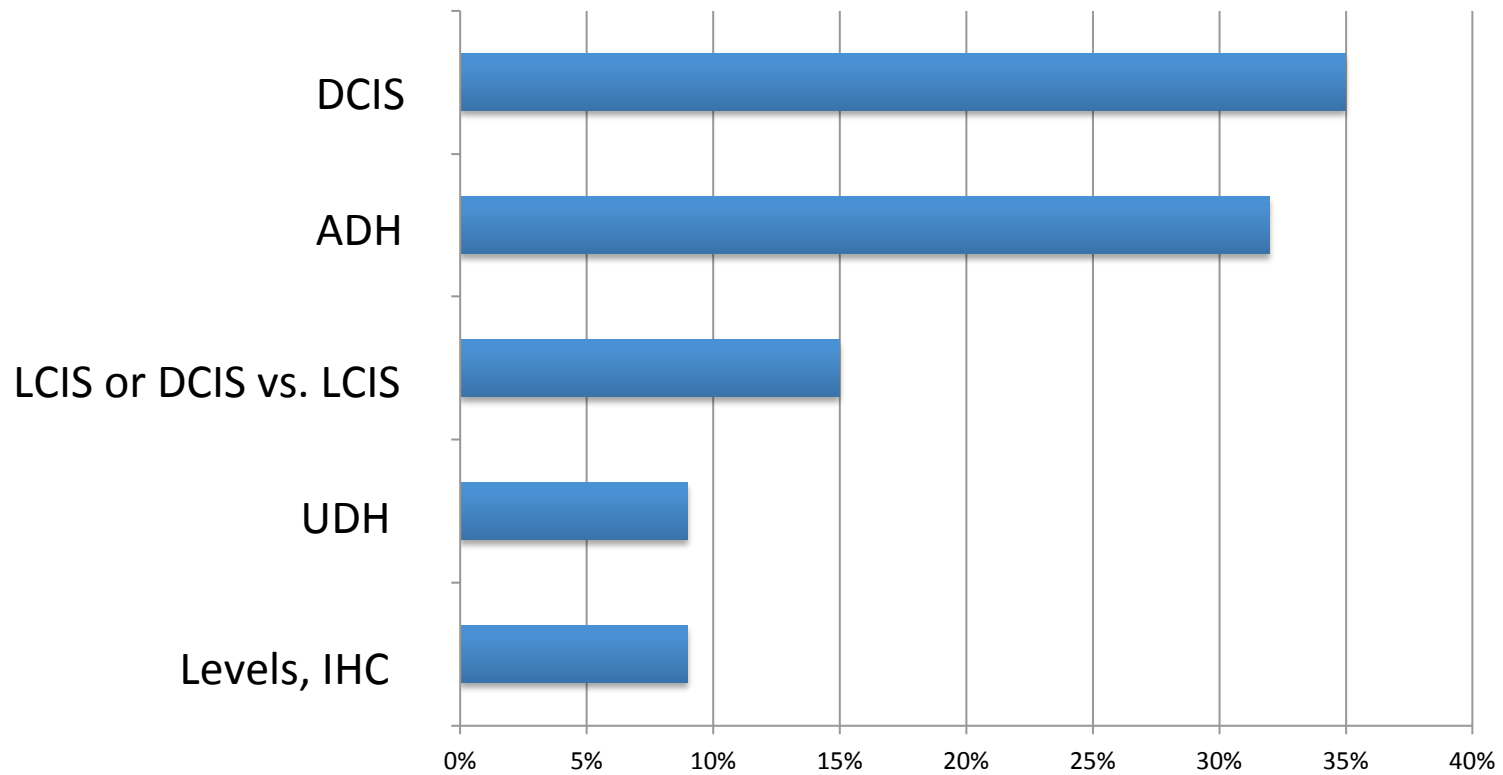
- The potential of BC screening
- Limited material on cb and pathological – radiological correlations

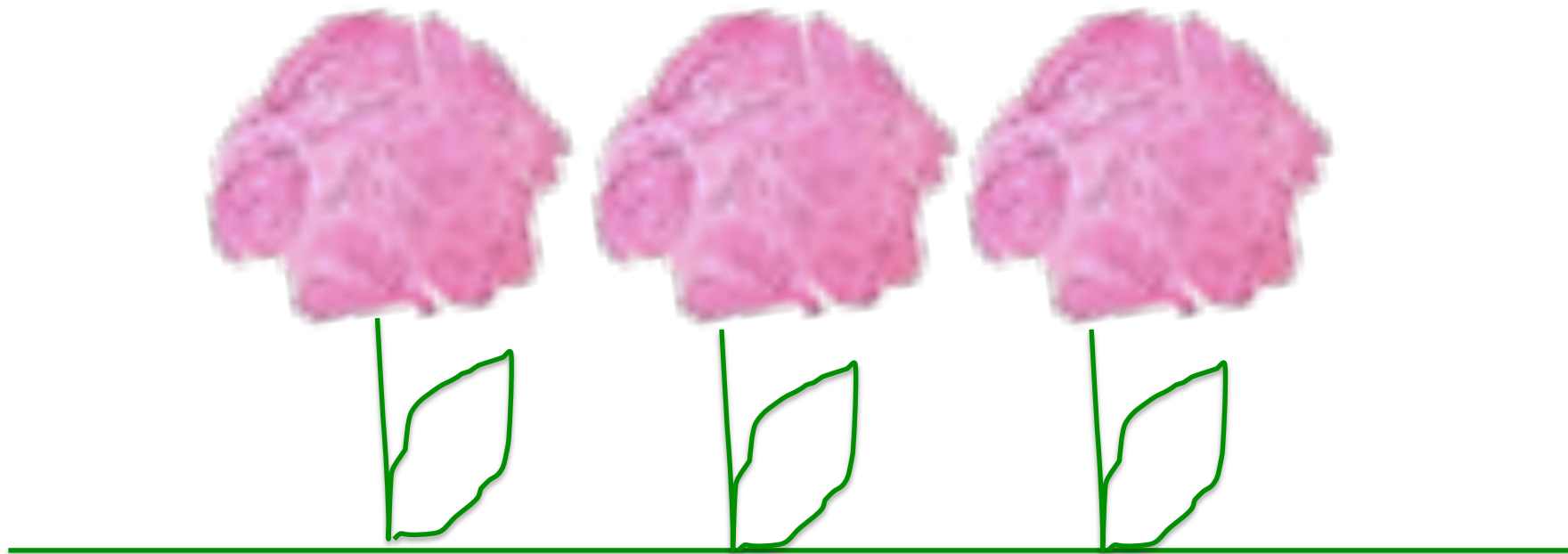


FINAL DIAGNOSIS

- IC-NST, G1, pT1a Nx, associated to DCIS with calx (15 mm)

Possible diagnosis?





Thank You