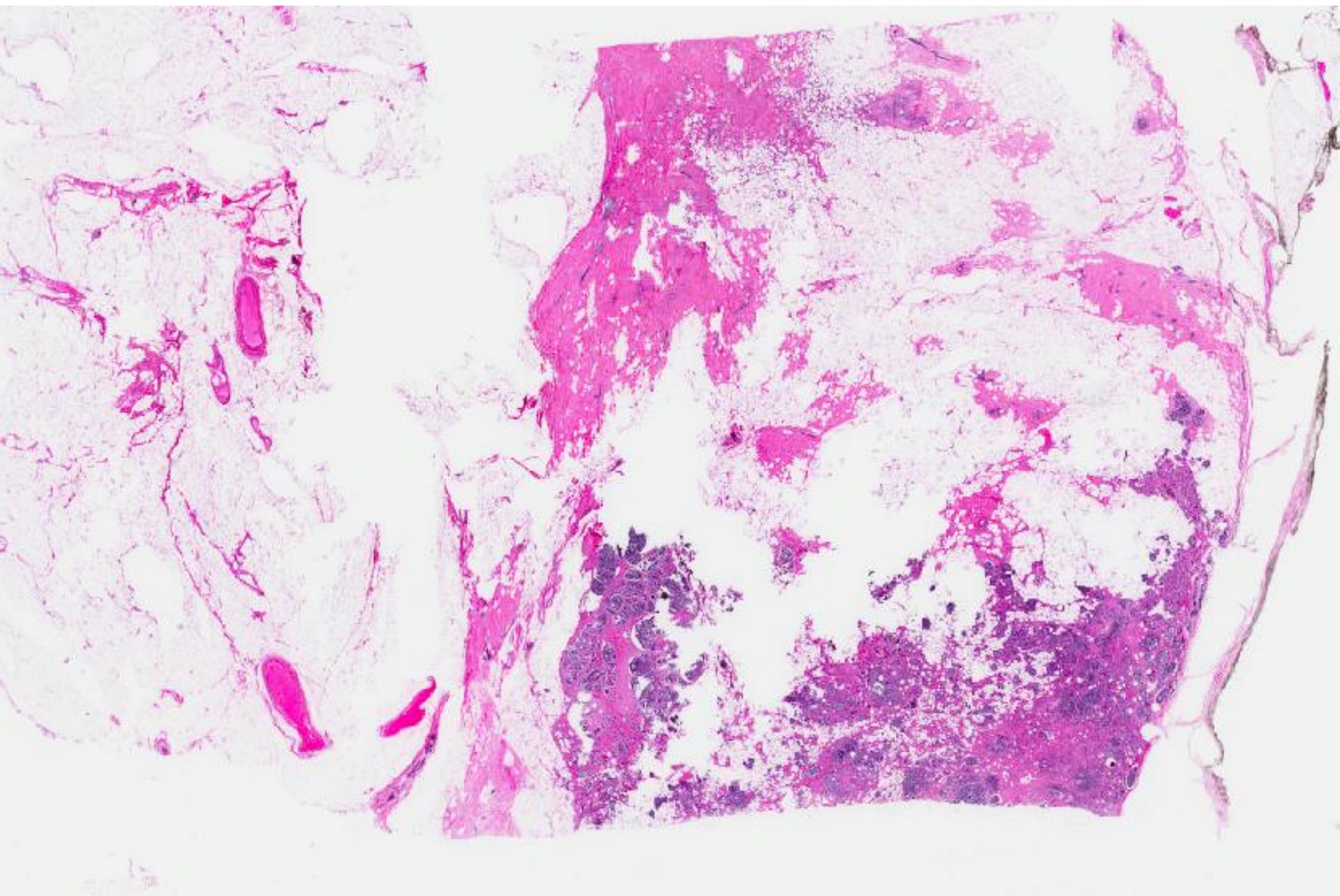


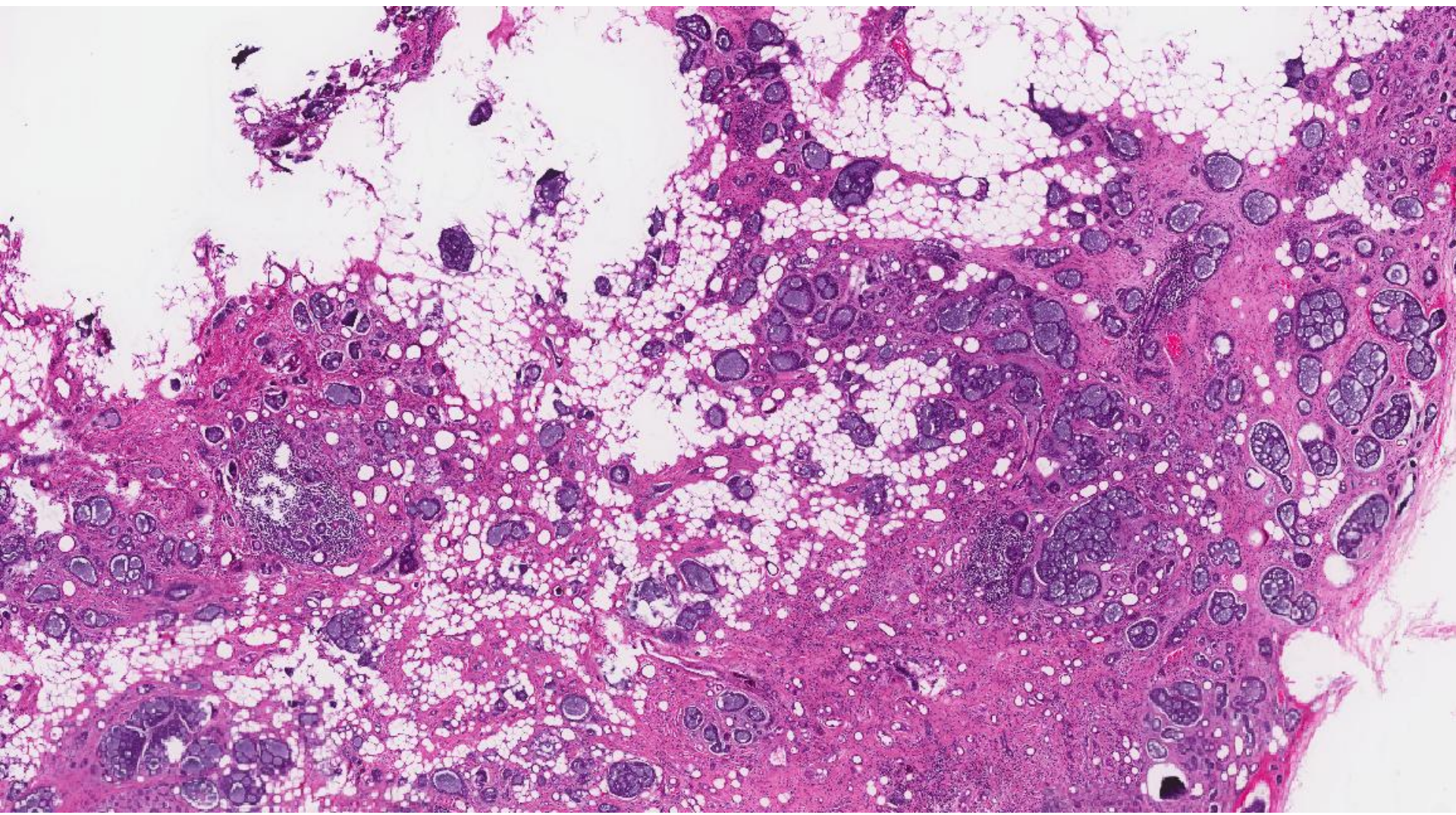
## Case 20

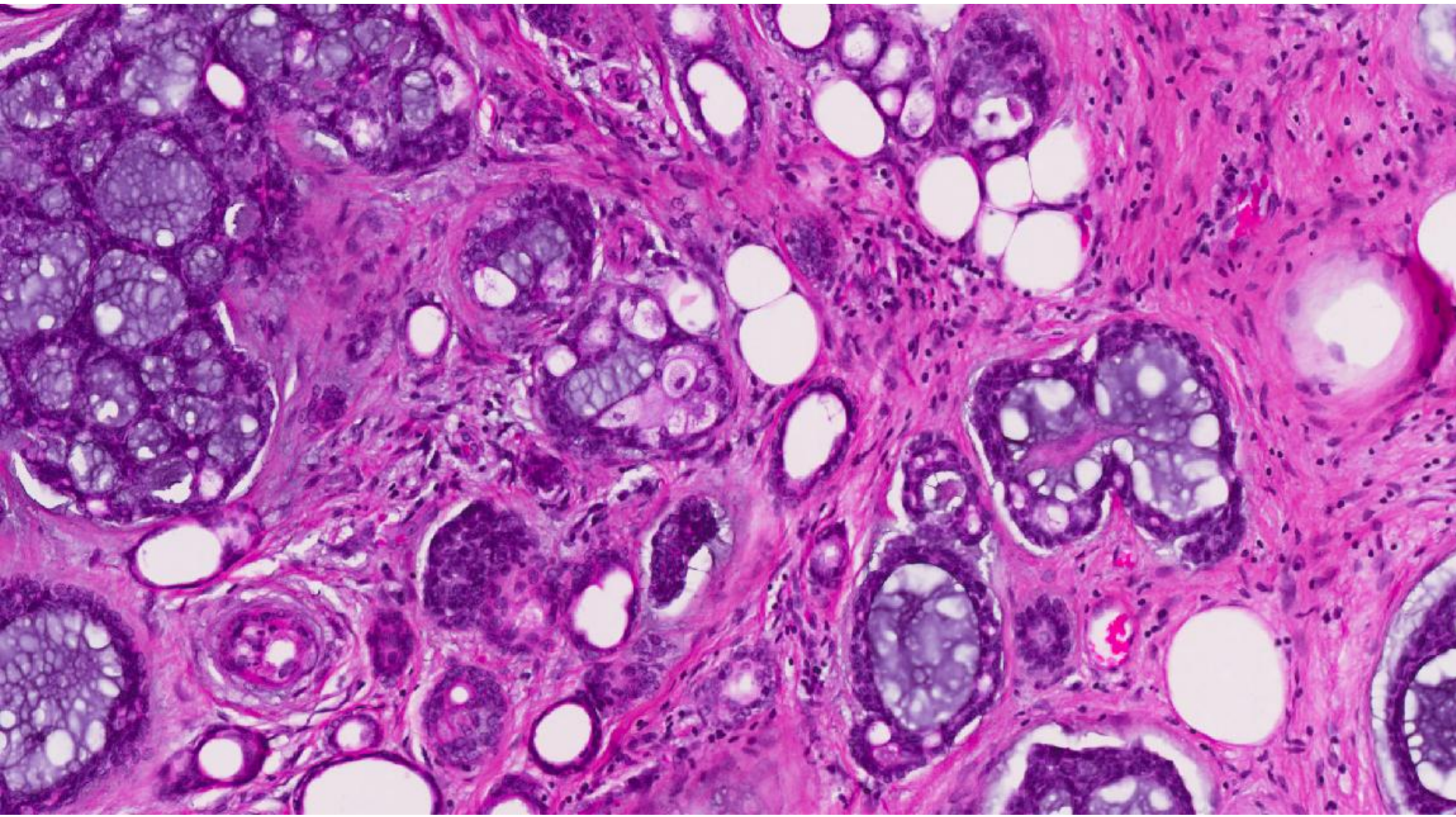
79 year old Chinese lady was diagnosed with invasive ductal carcinoma on trucut core biopsy of a left breast 0200 nodule.

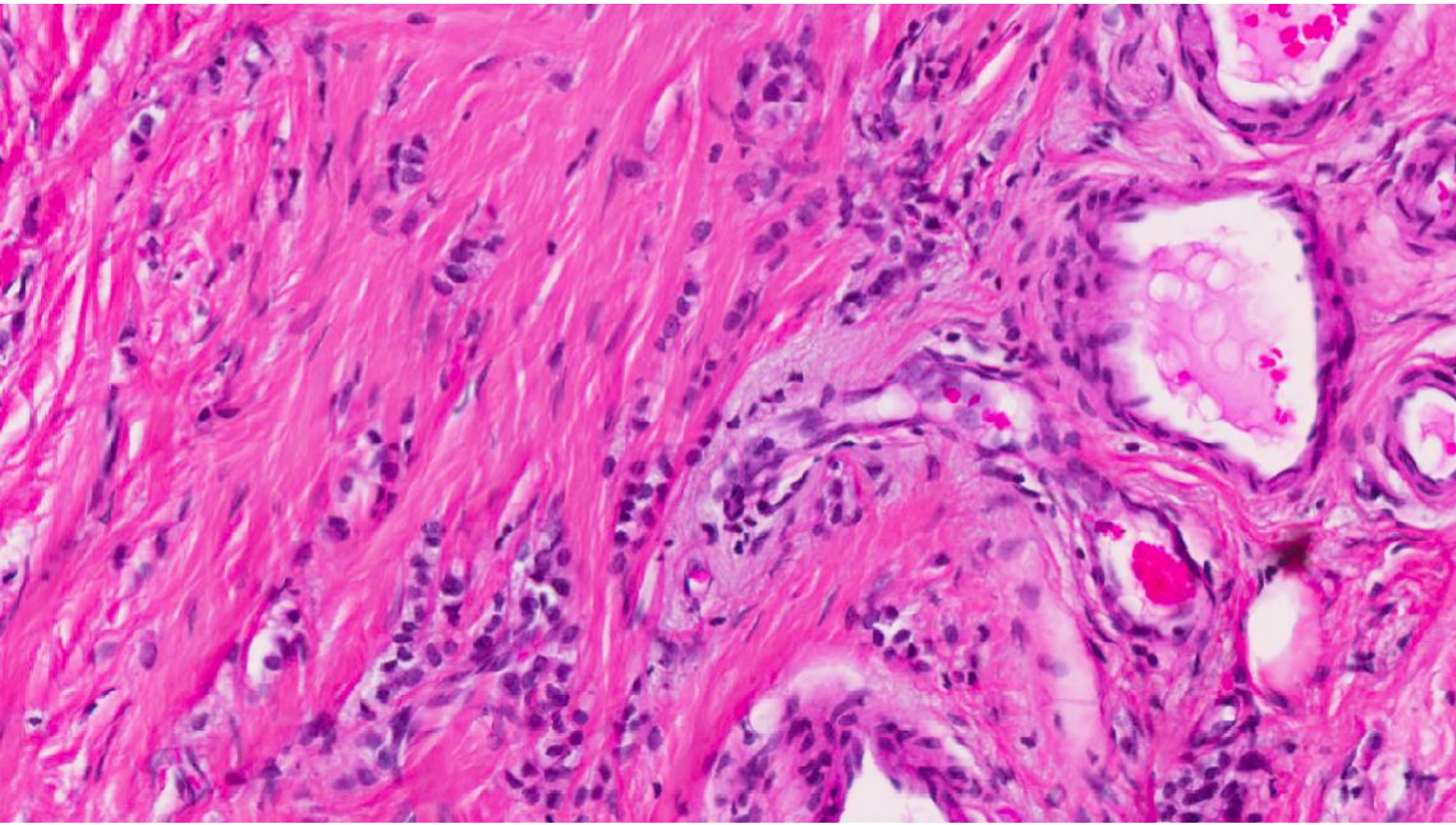
She underwent a left mastectomy with sentinel lymph node biopsy.

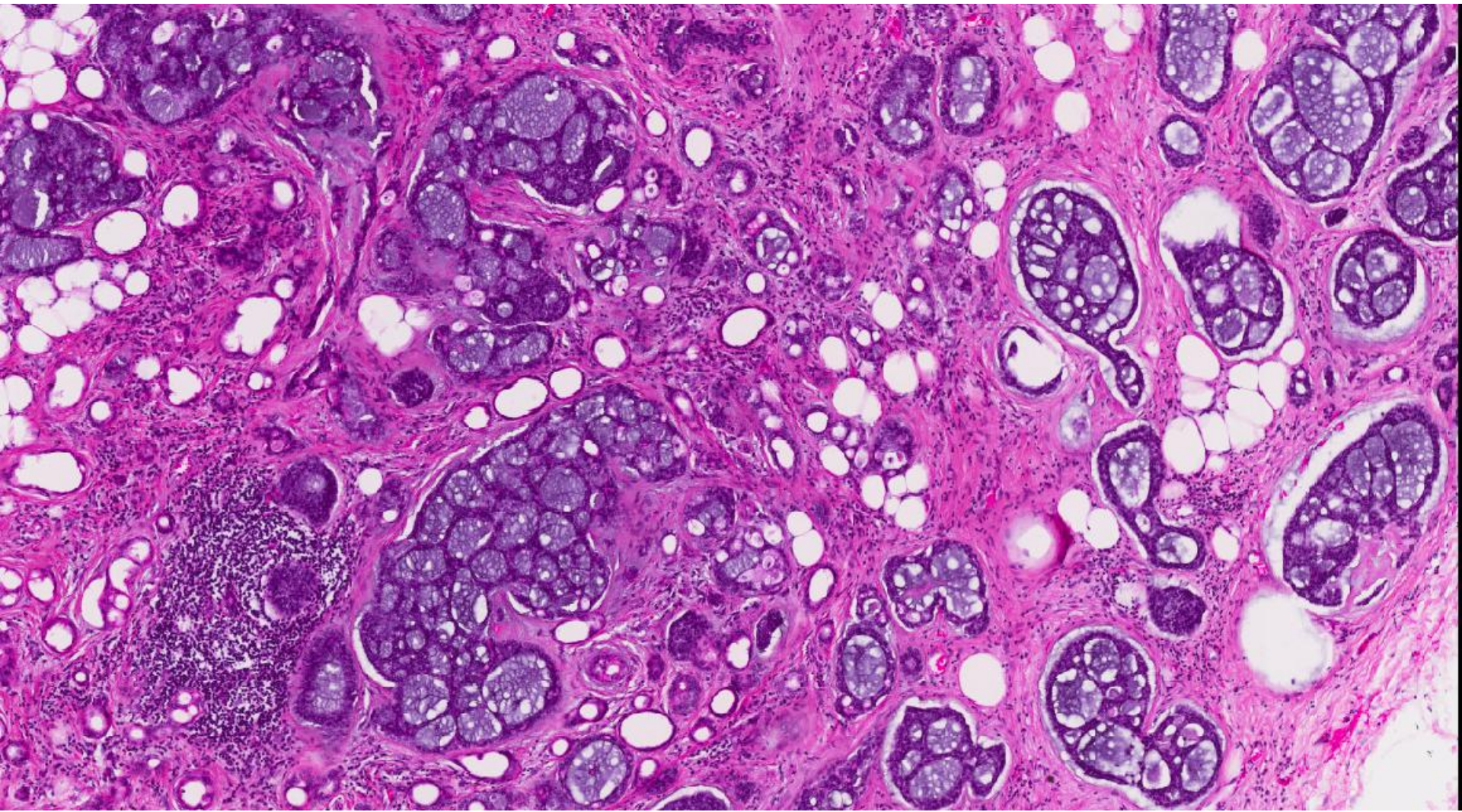
Section is from the tumour in the left mastectomy.

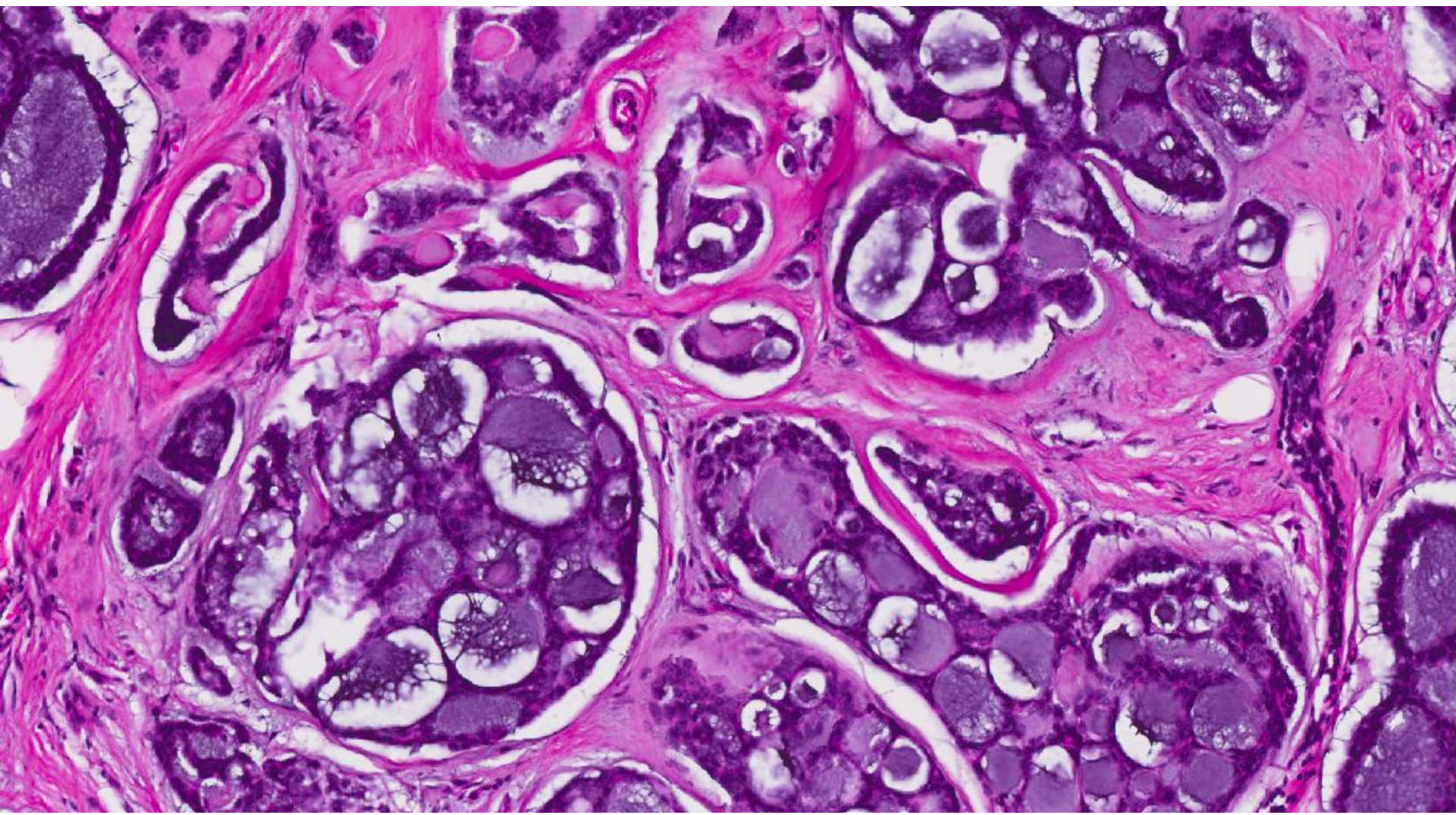


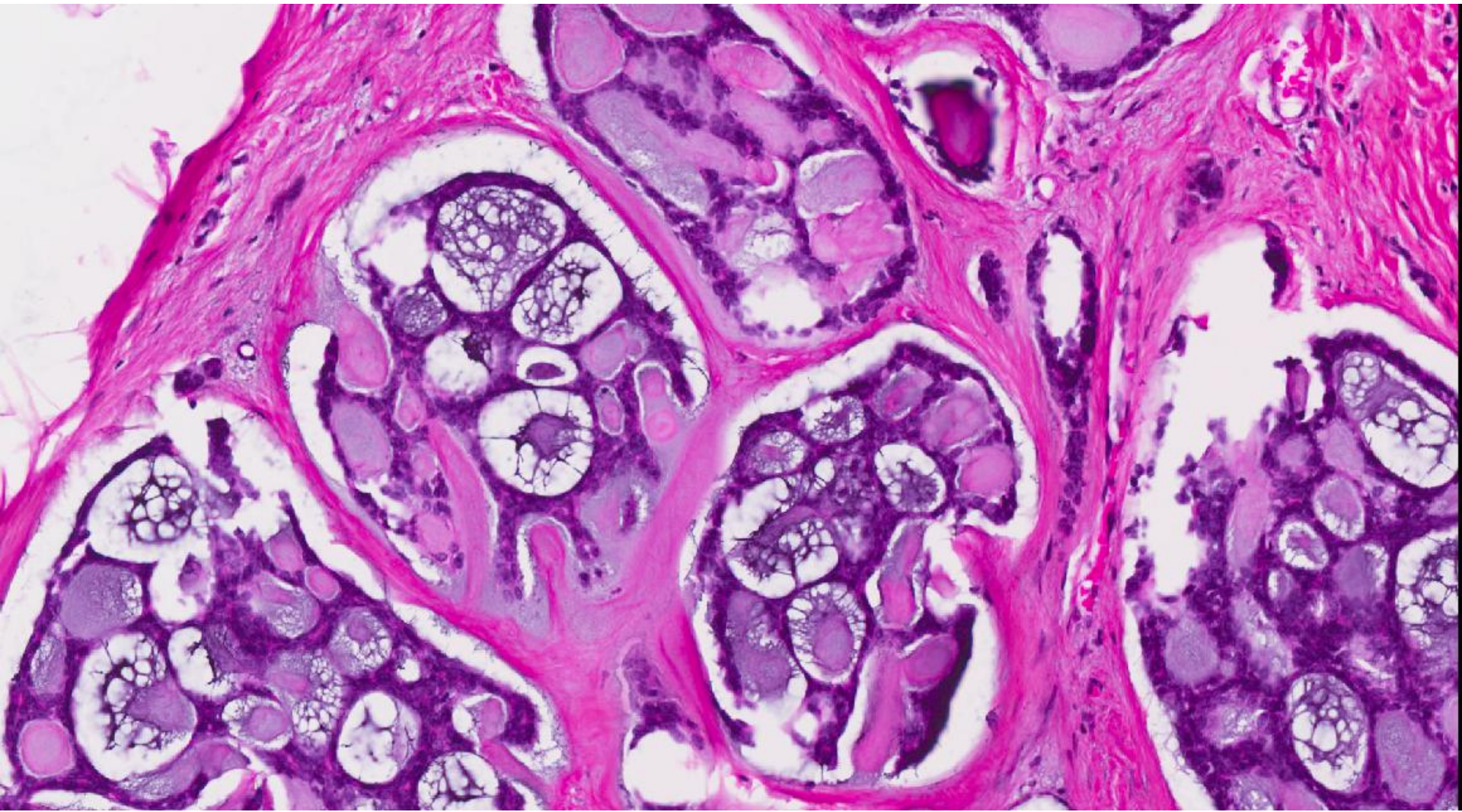




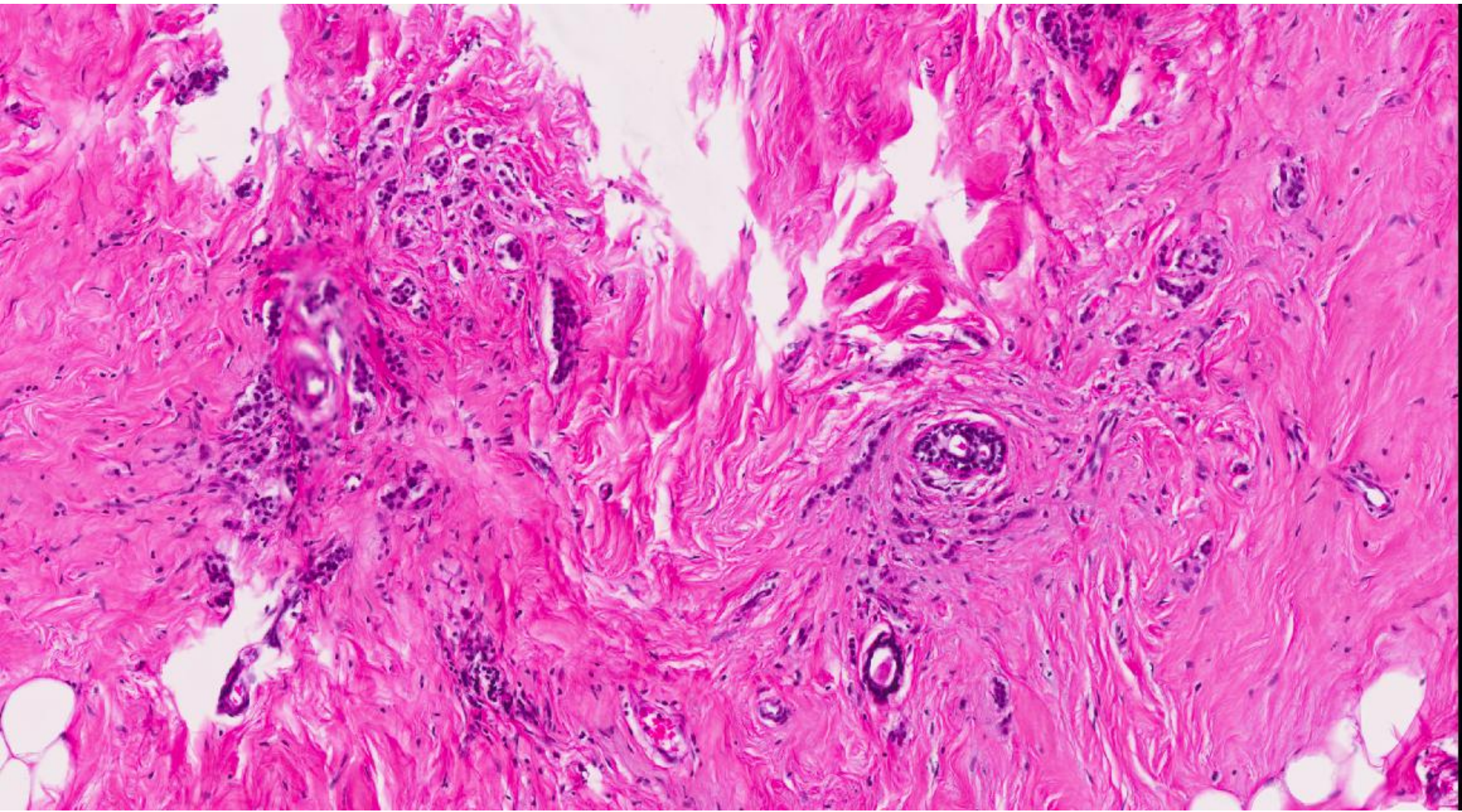


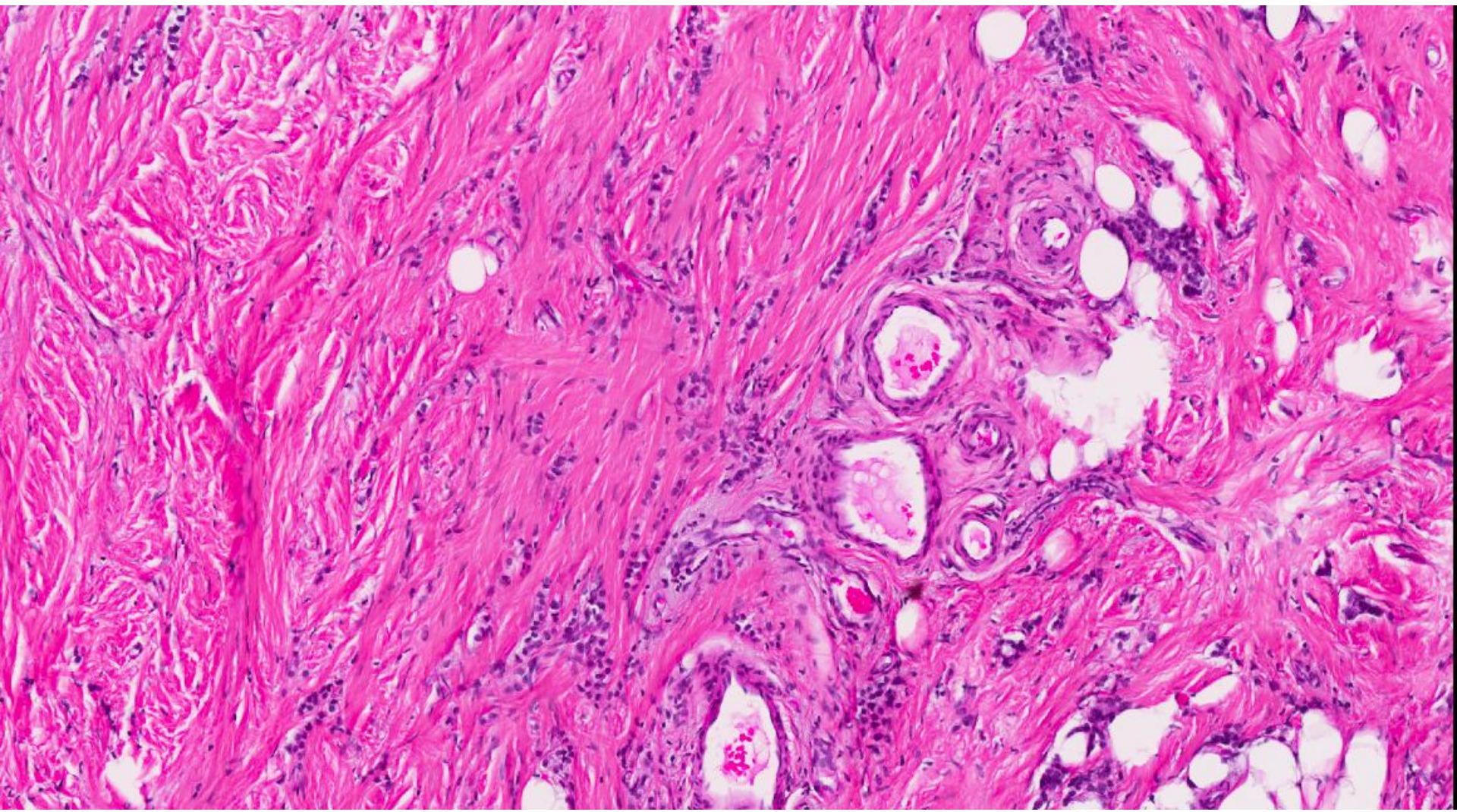


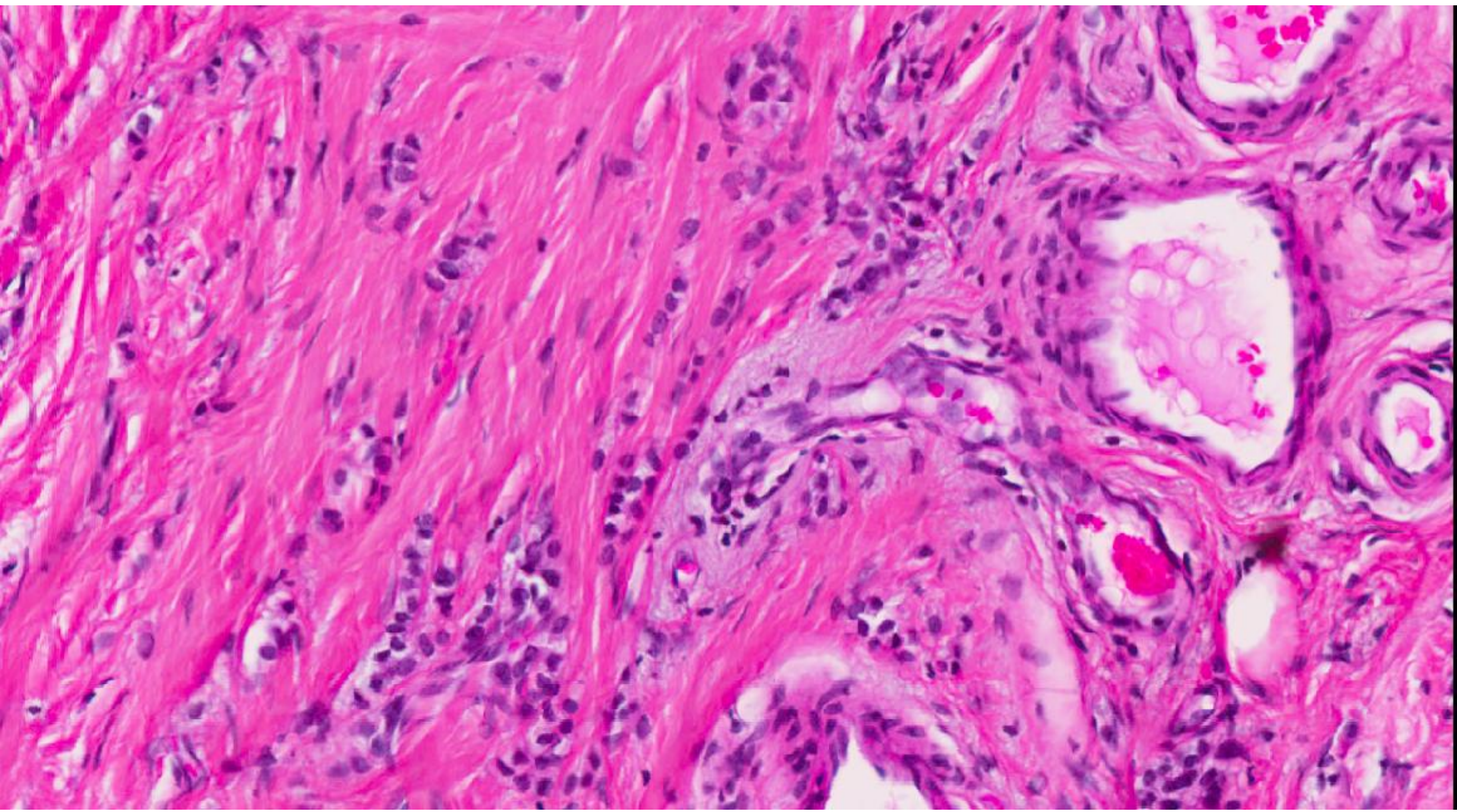


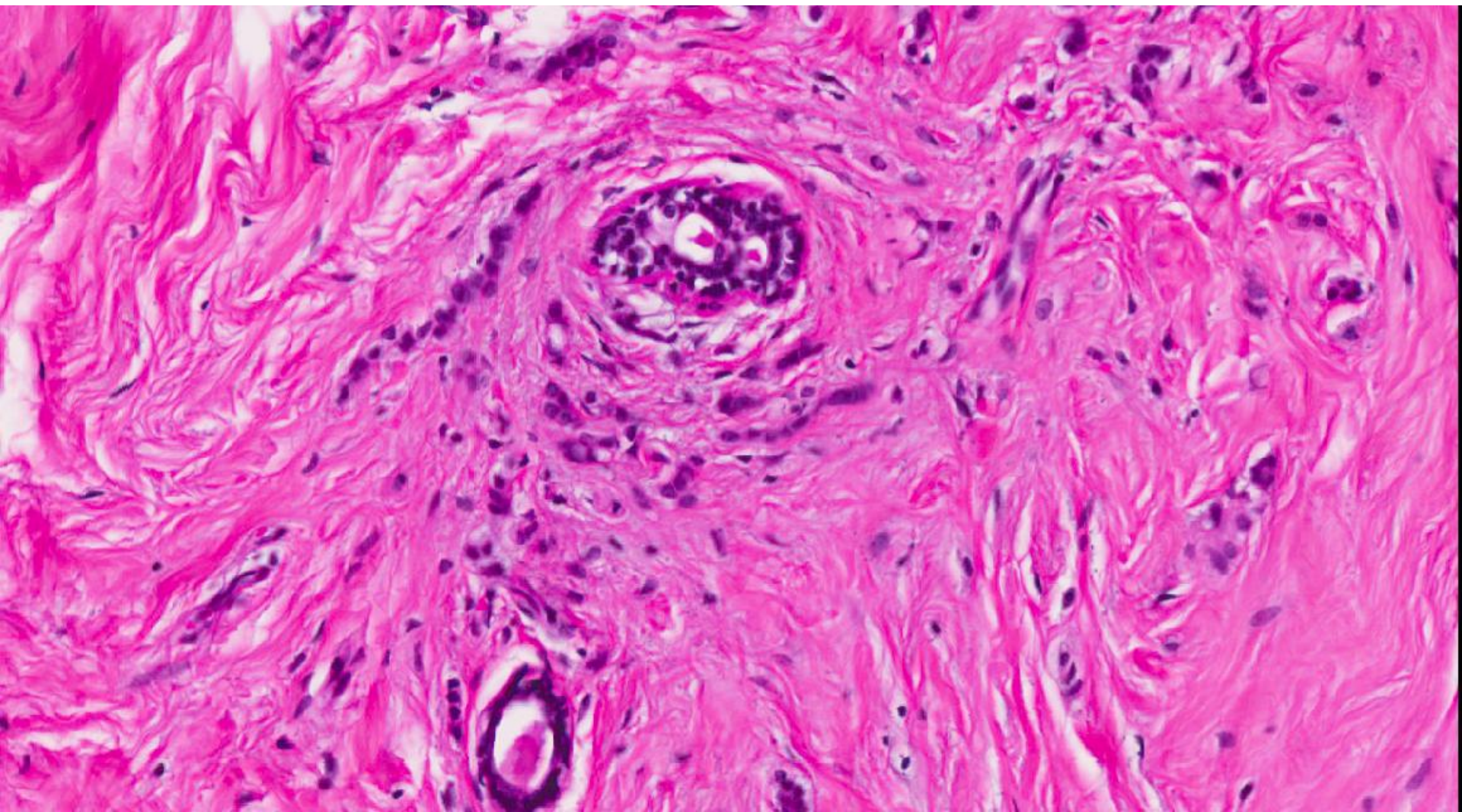




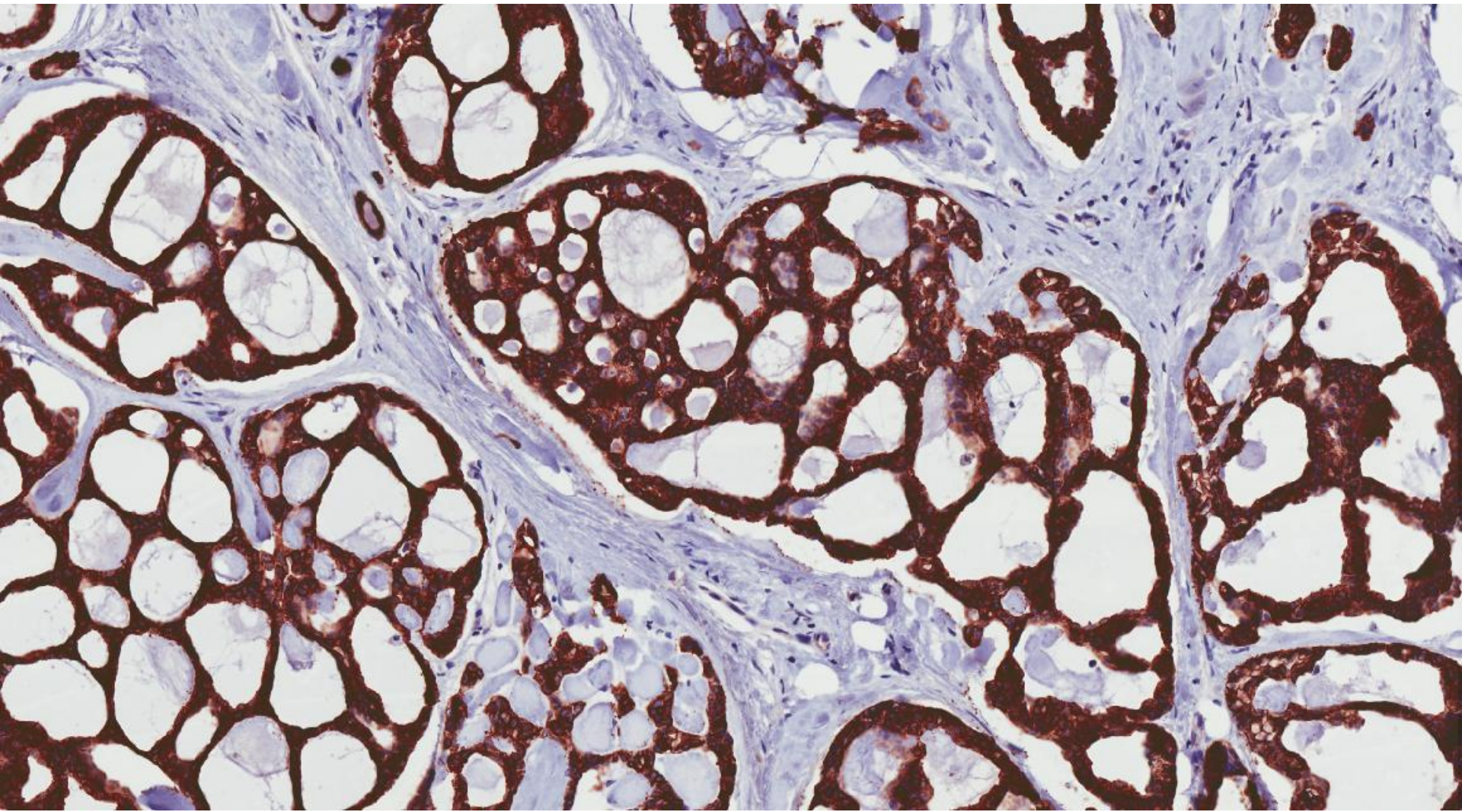




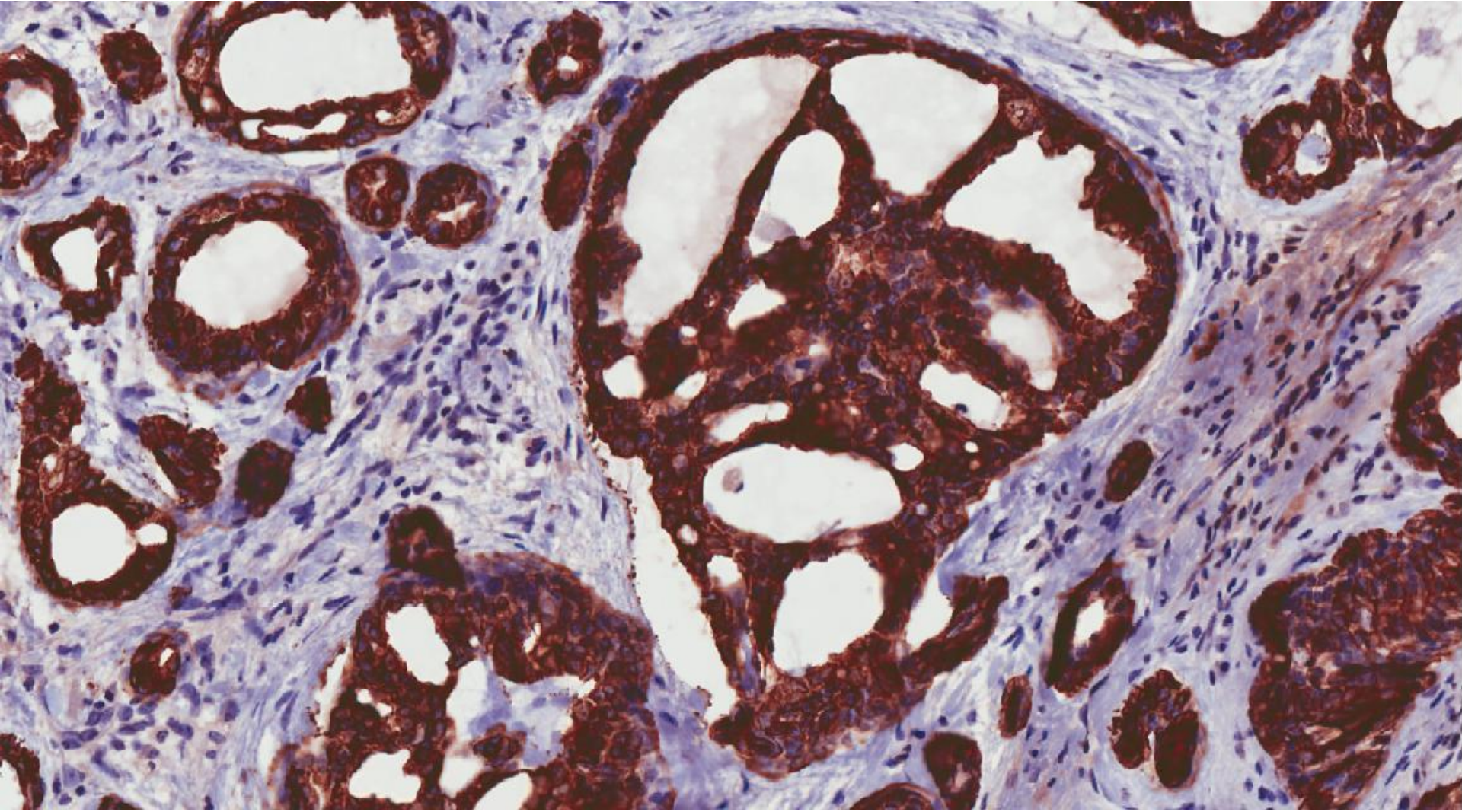




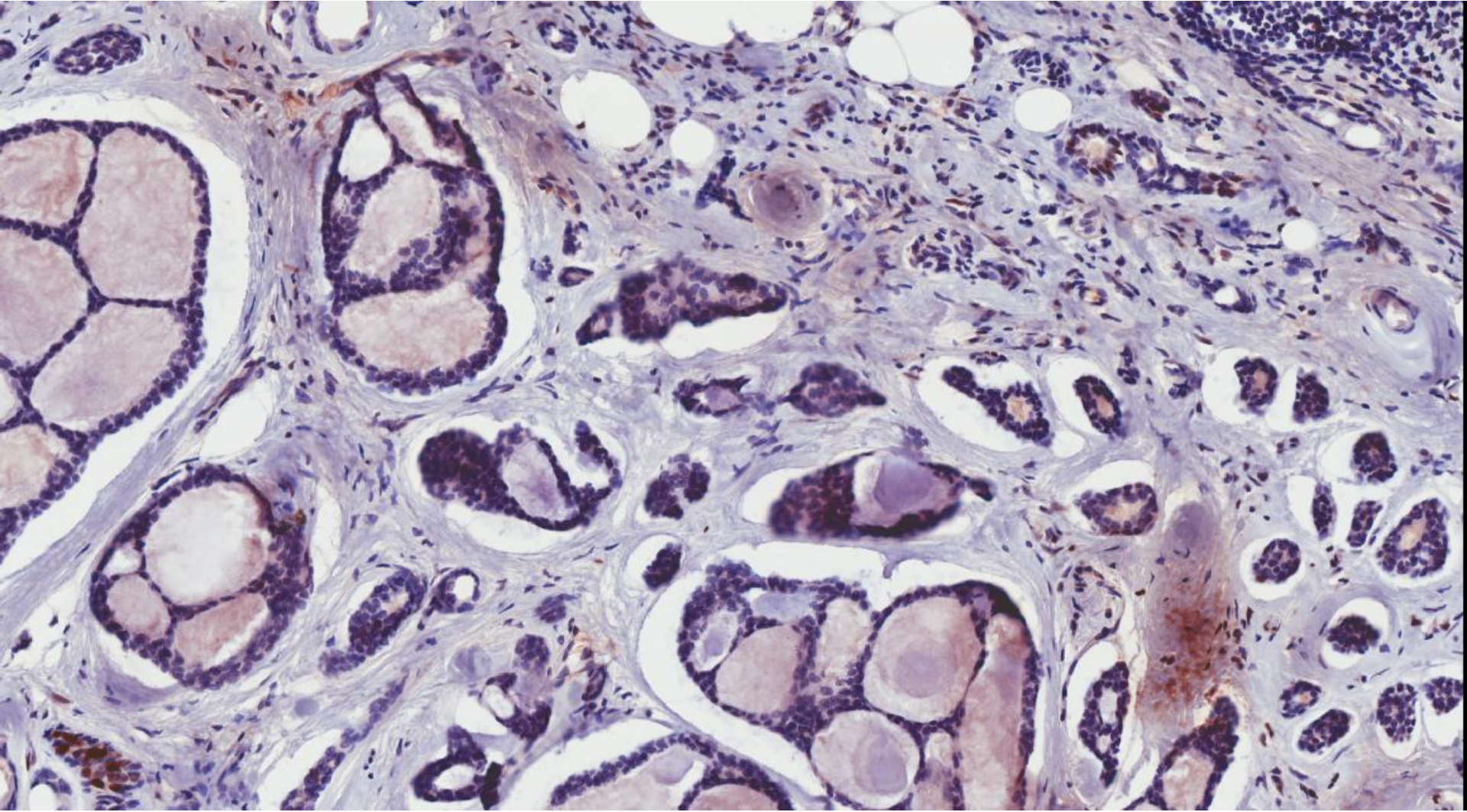
CK14



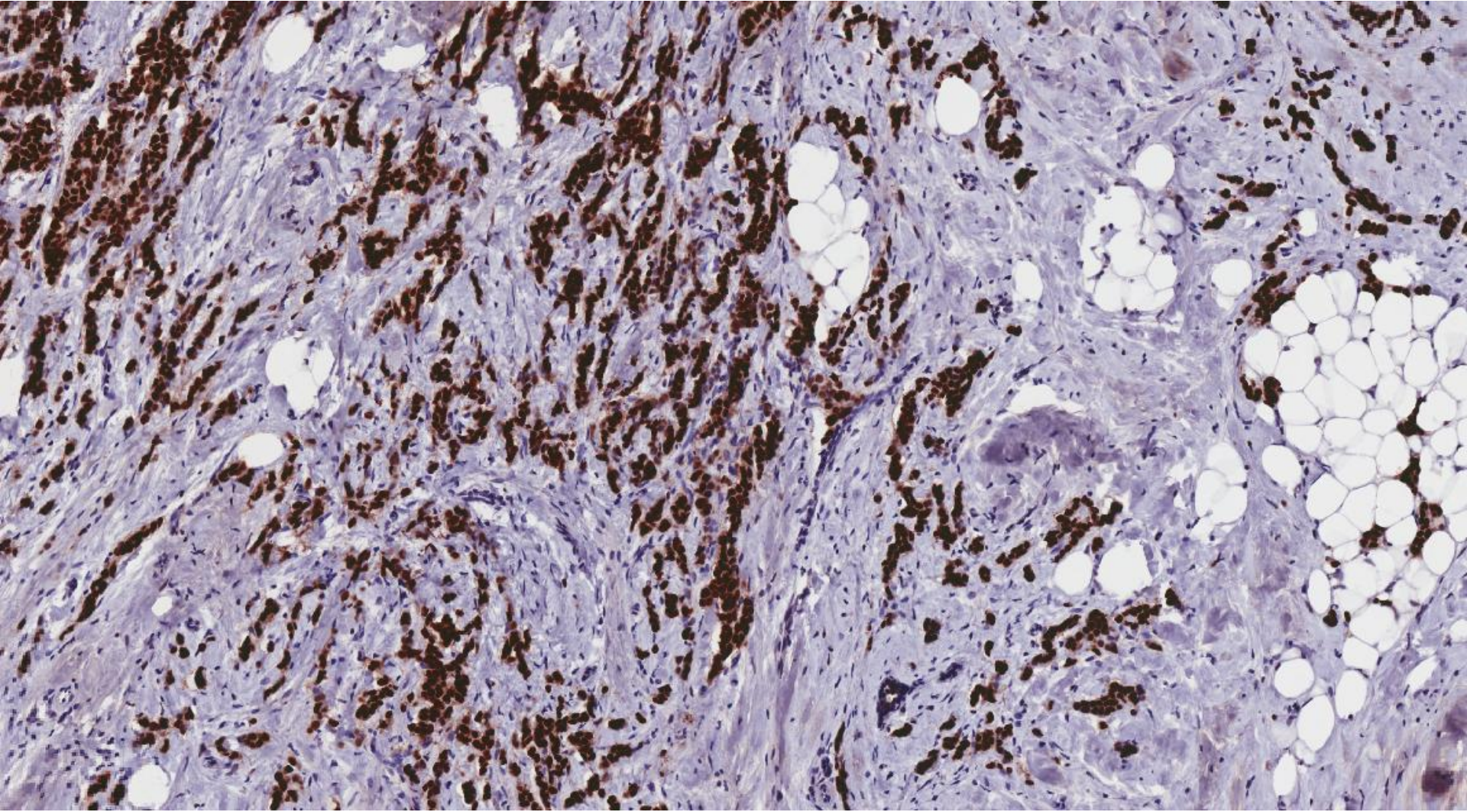
CK14



ER

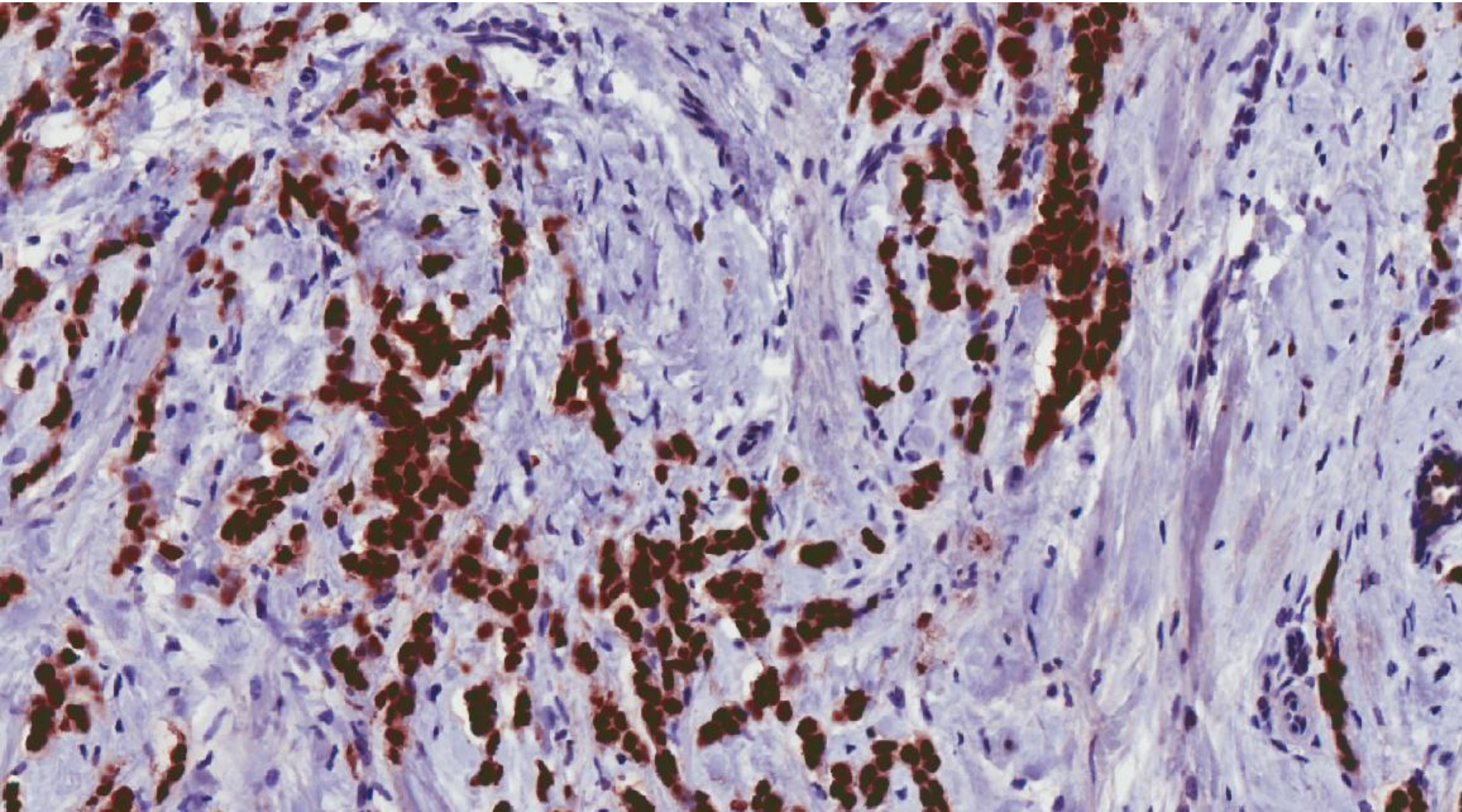


ER

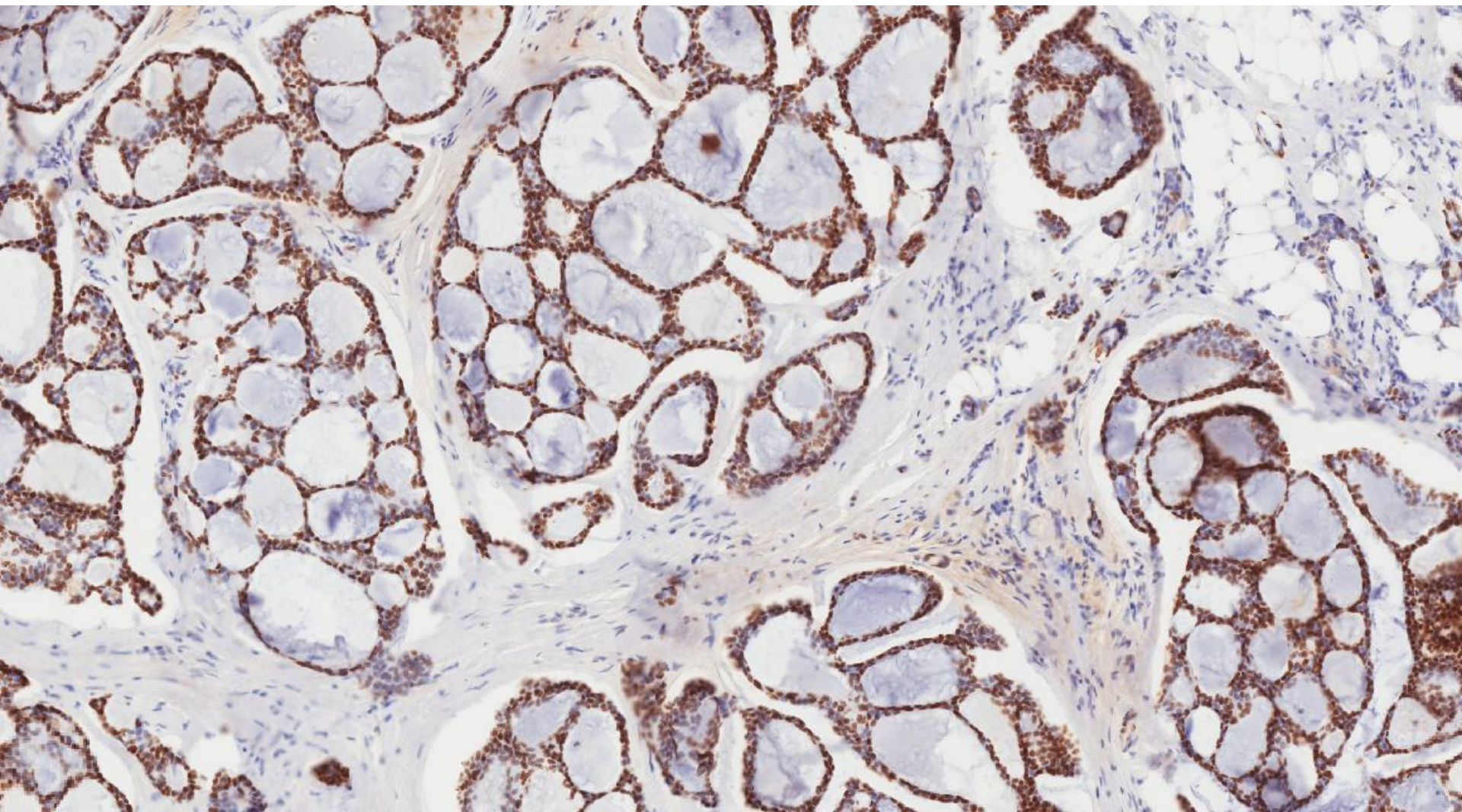




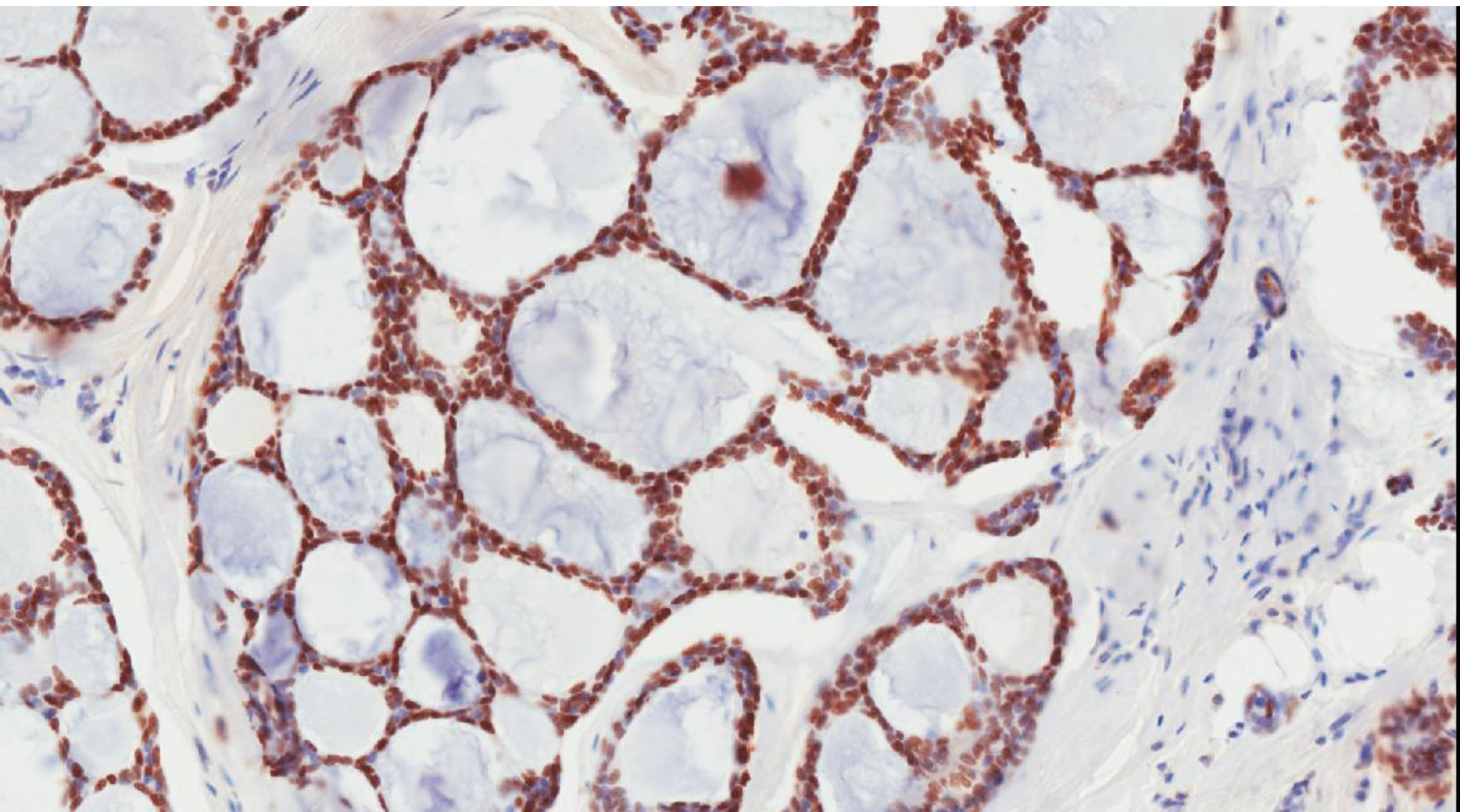
ER



p63



p63



# Diagnosis

Invasive carcinoma with adenoid  
cystic and tubulolobular components

# Adenoid cystic carcinoma

- Rare histological subtype, accounting for less than 0.5% of all breast carcinomas.
- Commonly presents as a painful lump in women in their 6<sup>th</sup> to 7<sup>th</sup> decades of life.
- Although the tumor is not infrequently discovered in the subareolar location, nipple discharge is an uncommon accompanying symptom.
- Pain is thought to be caused by associated perineural infiltration by tumor cells.
- It has been hypothesized that tenderness in adenoid cystic carcinoma of the breast may be attributable to contractility of its myoepithelial component.

# Adenoid cystic carcinoma

- Macroscopically, the tumor is usually well circumscribed, ranging from 1 to 5 cm in size.
- Histologically, there are cribriform epithelial structures with both true lumens where cytokeratin 7 positive epithelial cells polarize around central spaces, as well as pseudolumens in which spaces form among myoepithelial/basaloid type cells.
- Latter spaces tend to contain myxoid and basement membrane-like material.
- Solid, tubular and trabecular epithelial formations can also be seen.

# Adenoid cystic carcinoma

- Histological differential diagnoses:
  - Cribriform ductal carcinoma in situ.
  - Invasive cribriform carcinoma.
  - Both in situ and invasive cribriform carcinoma are often diffusely ER positive and unassociated with elaboration of basement membrane material.
  - Distinction of in situ from invasive cribriform carcinoma can be made using immunohistochemistry that demonstrates presence of myoepithelial cells in the former and absence in the latter.
  - **Collagenous spherulosis**, another differential, is usually an incidental microscopic finding with an admixture of ER positive luminal epithelial cells and S100 (and p63) positive myoepithelial cells encircling lumens containing spherules, with occasional calcifications.

# Adenoid cystic carcinoma

- Unlike its aggressive nature in other sites, adenoid cystic carcinoma of the breast has a very favourable prognosis, despite its frequent triple negative basal-like status with positivity for basal-type markers and CD117.
- There is a low incidence of axillary lymph node involvement or metastasis.
- Simple mastectomy or conservative surgery is the treatment of choice.
- Adjuvant chemotherapy, radiation and hormonal therapy are seldom required.



# Invasive tubulolobular carcinoma

- Variant of invasive lobular carcinoma.
- Admixture of tubular growth pattern and small uniform cells arranged in a linear pattern.
- Lobular carcinoma in situ is present in 1/3 of tubulolobular cancers.

# Invasive lobular carcinoma

- An invasive carcinoma composed of non-cohesive cells individually dispersed or arranged in a single-file linear pattern in a fibrous stroma.
- Usually associated with lobular carcinoma in situ.

# Invasive lobular carcinoma

- Histological variants:
  - Classic
  - Solid
  - Alveolar
  - Pleomorphic
  - Tubulolobular
  - Mixed

- Concurrent adenoid cystic and invasive lobular carcinoma is very rare.
- Report receptor status for each component.