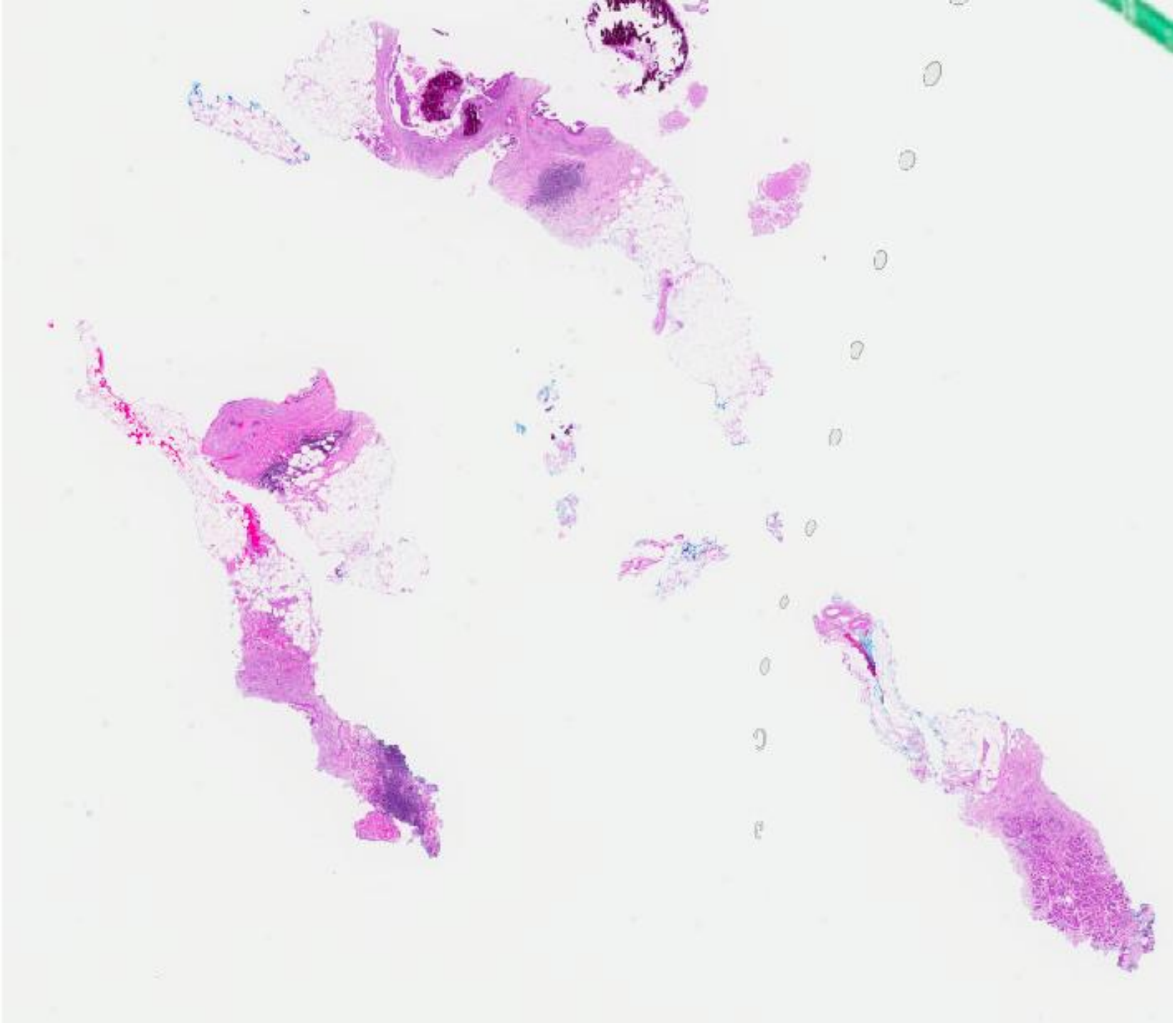
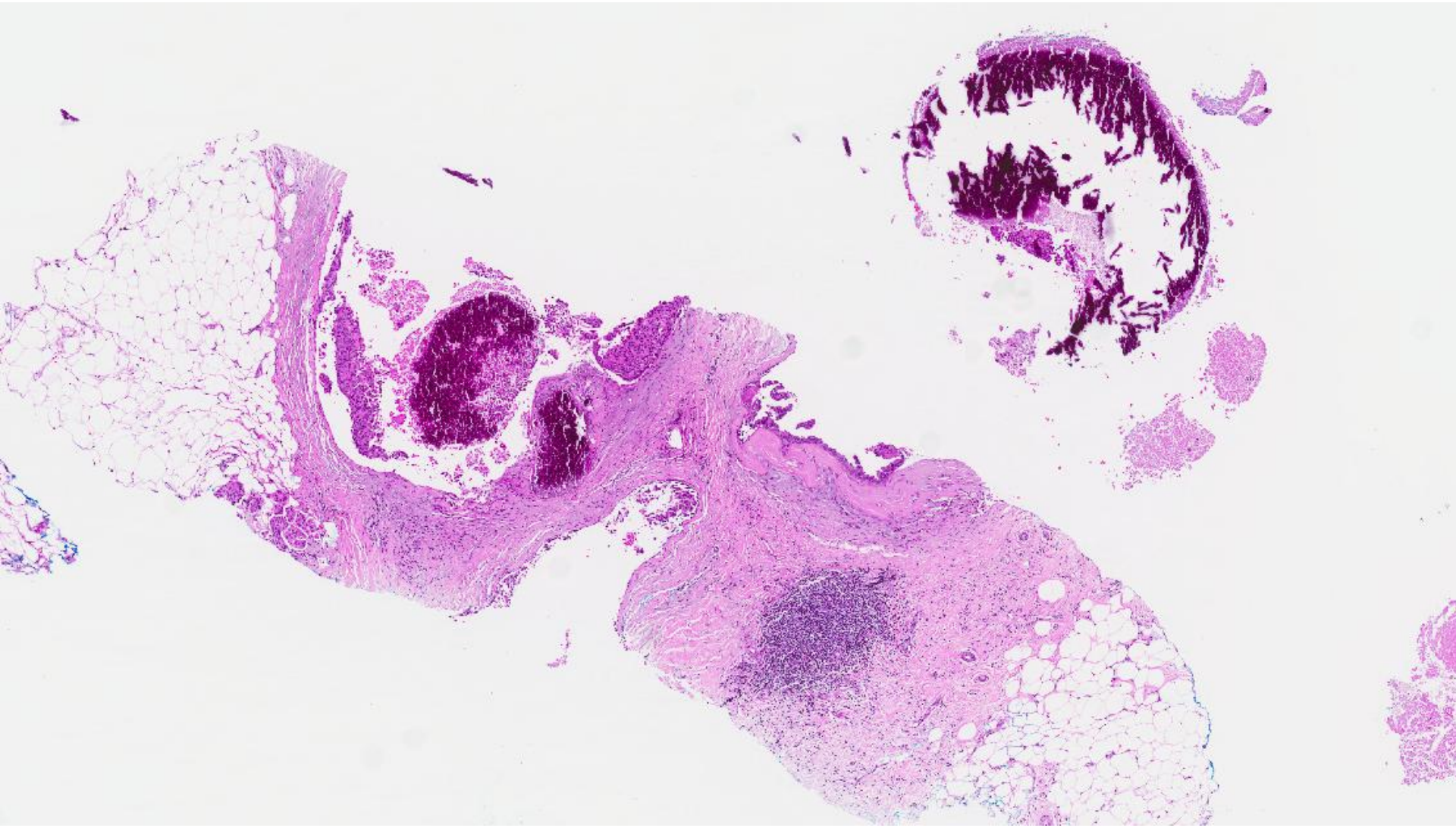
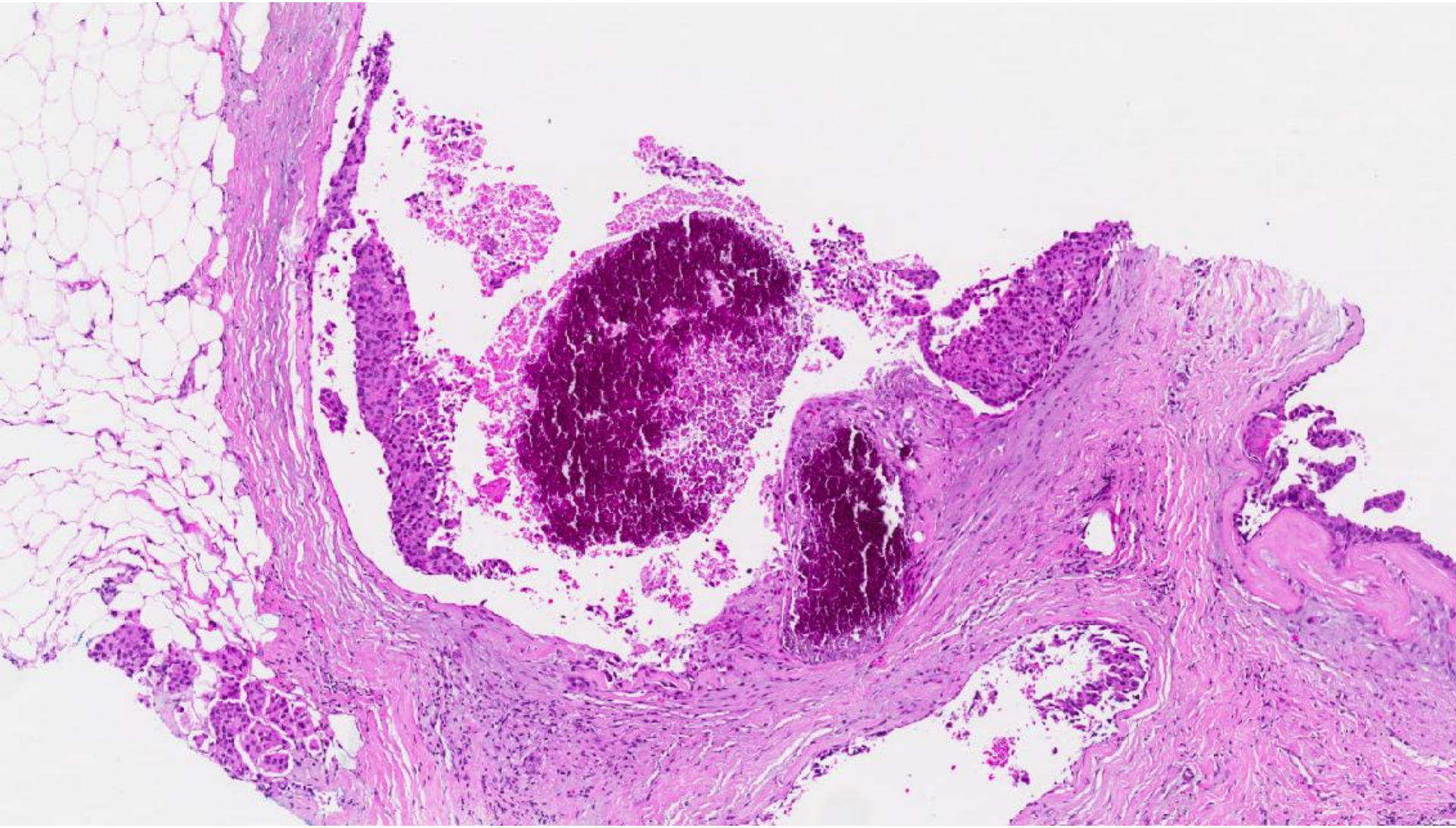
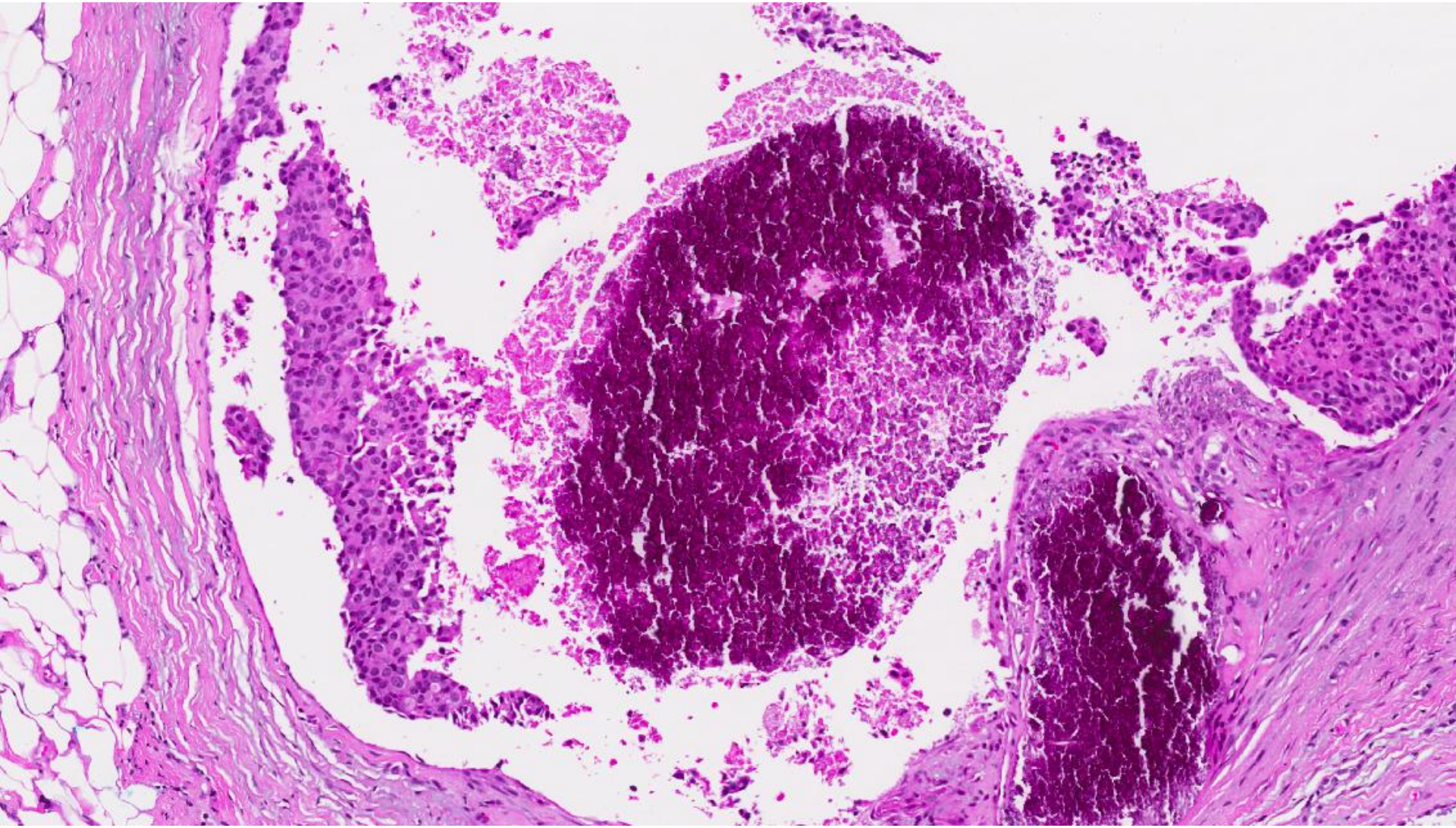
Case 33

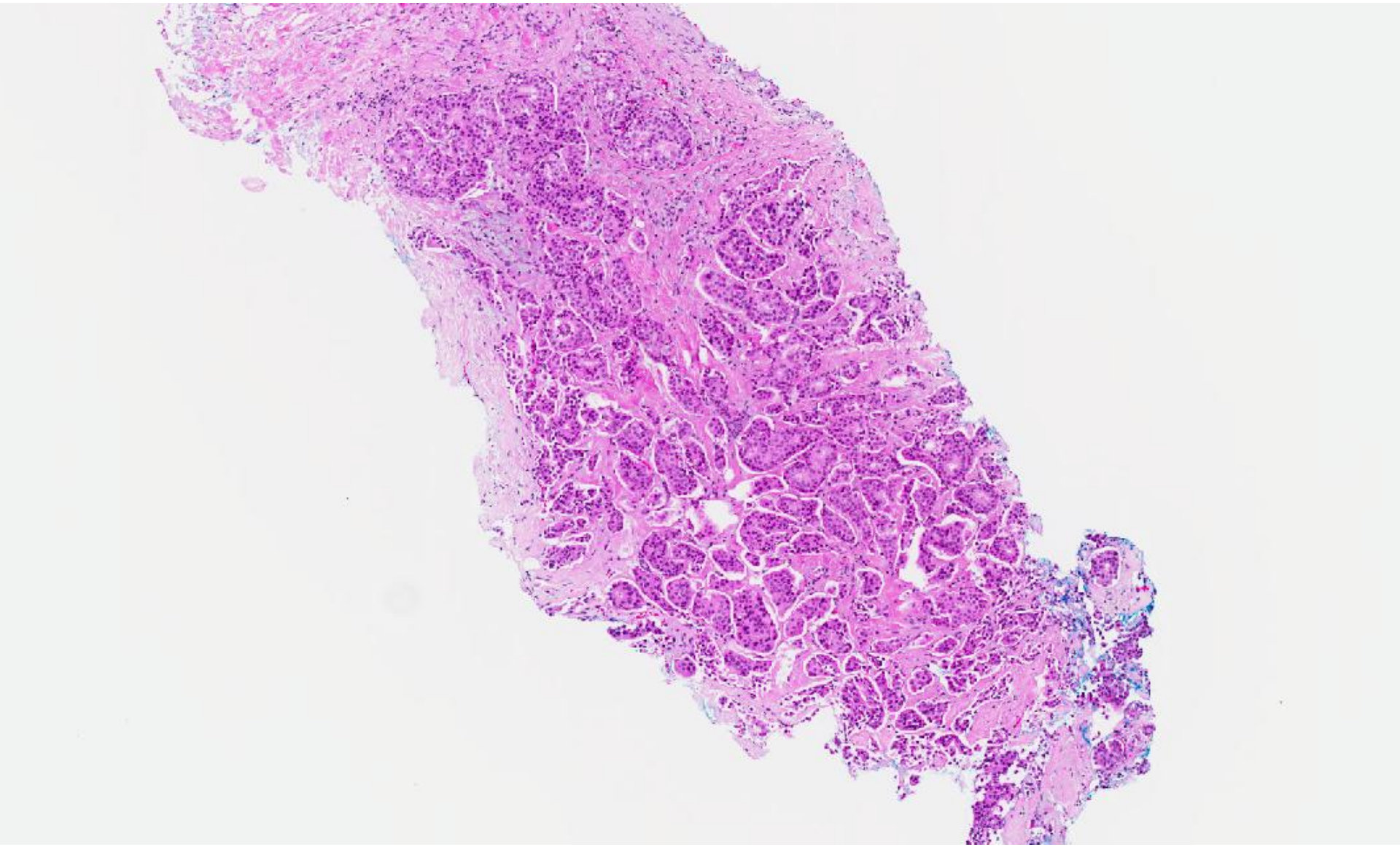
60 year old Chinese lady with radiologically detected calcifications in the right breast UOQ.
Stereotactic mammotome biopsies performed.

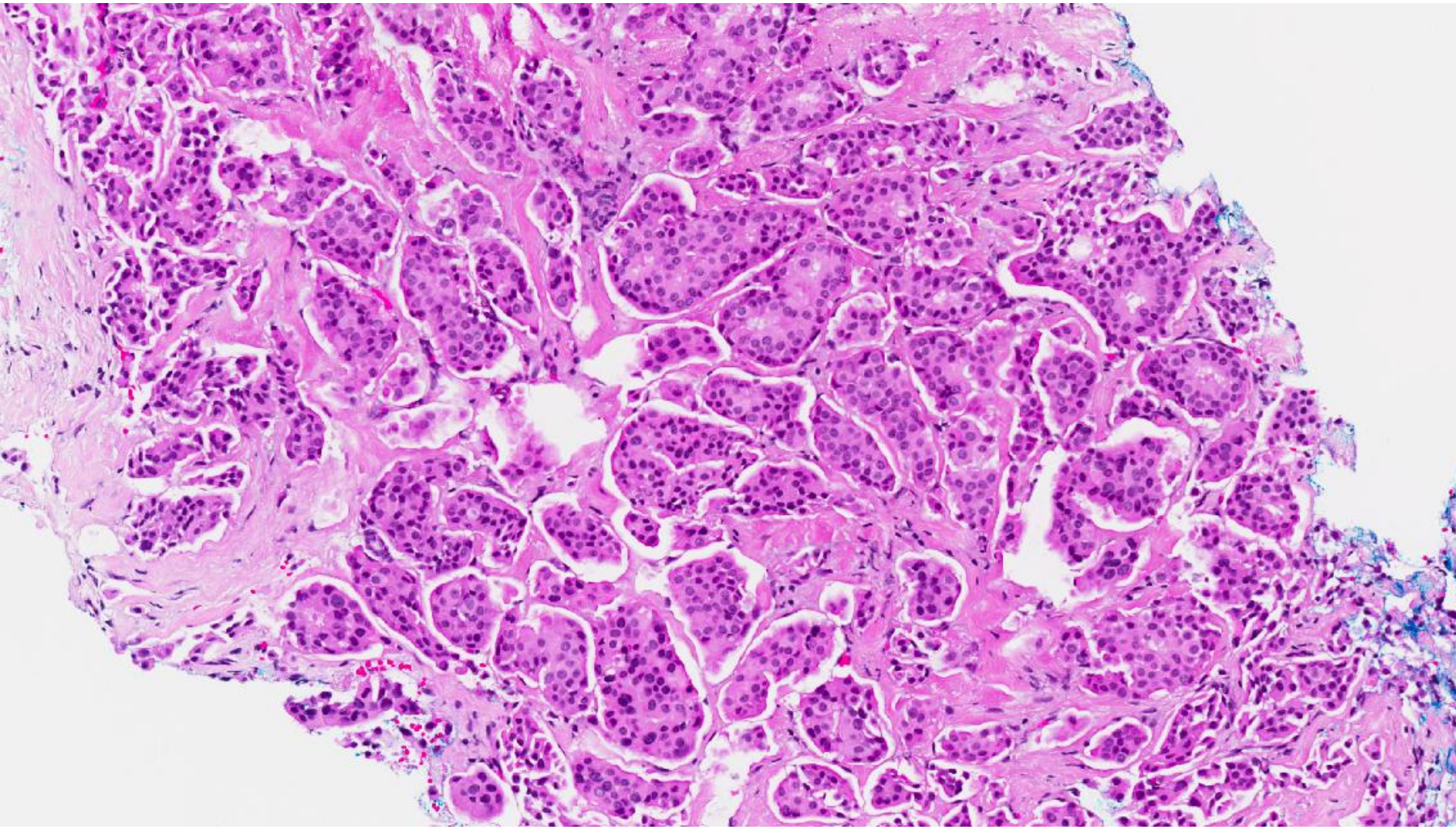


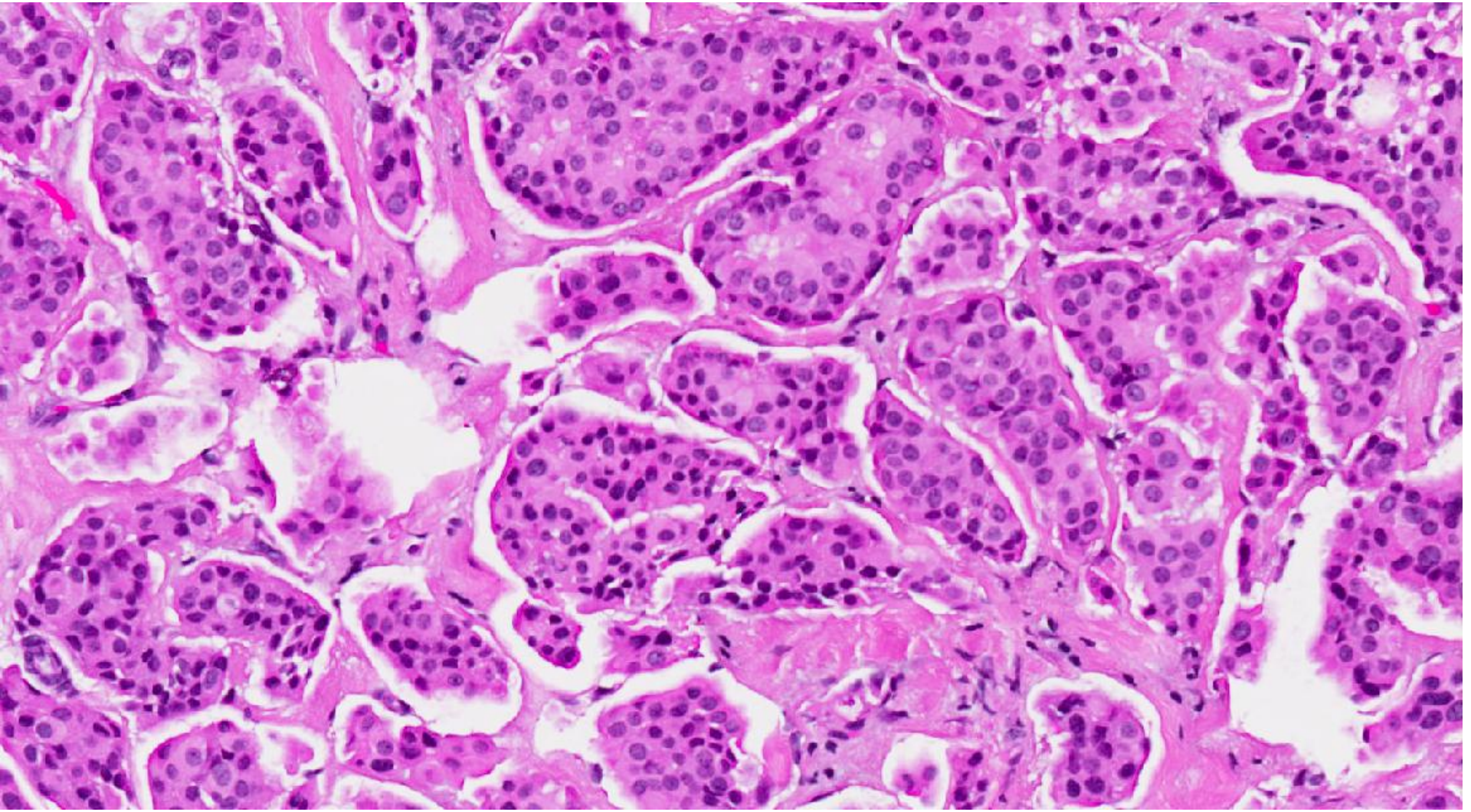


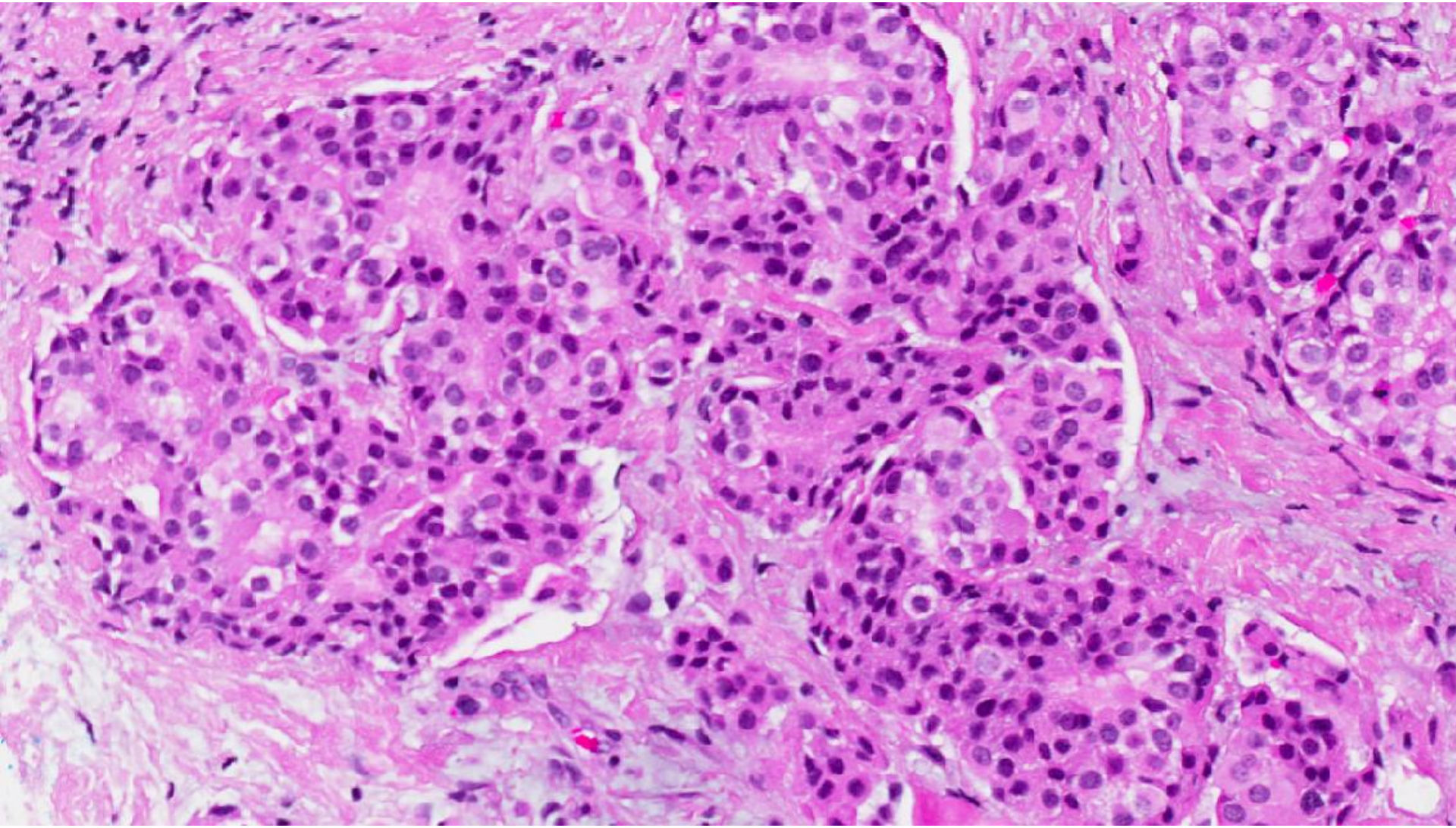


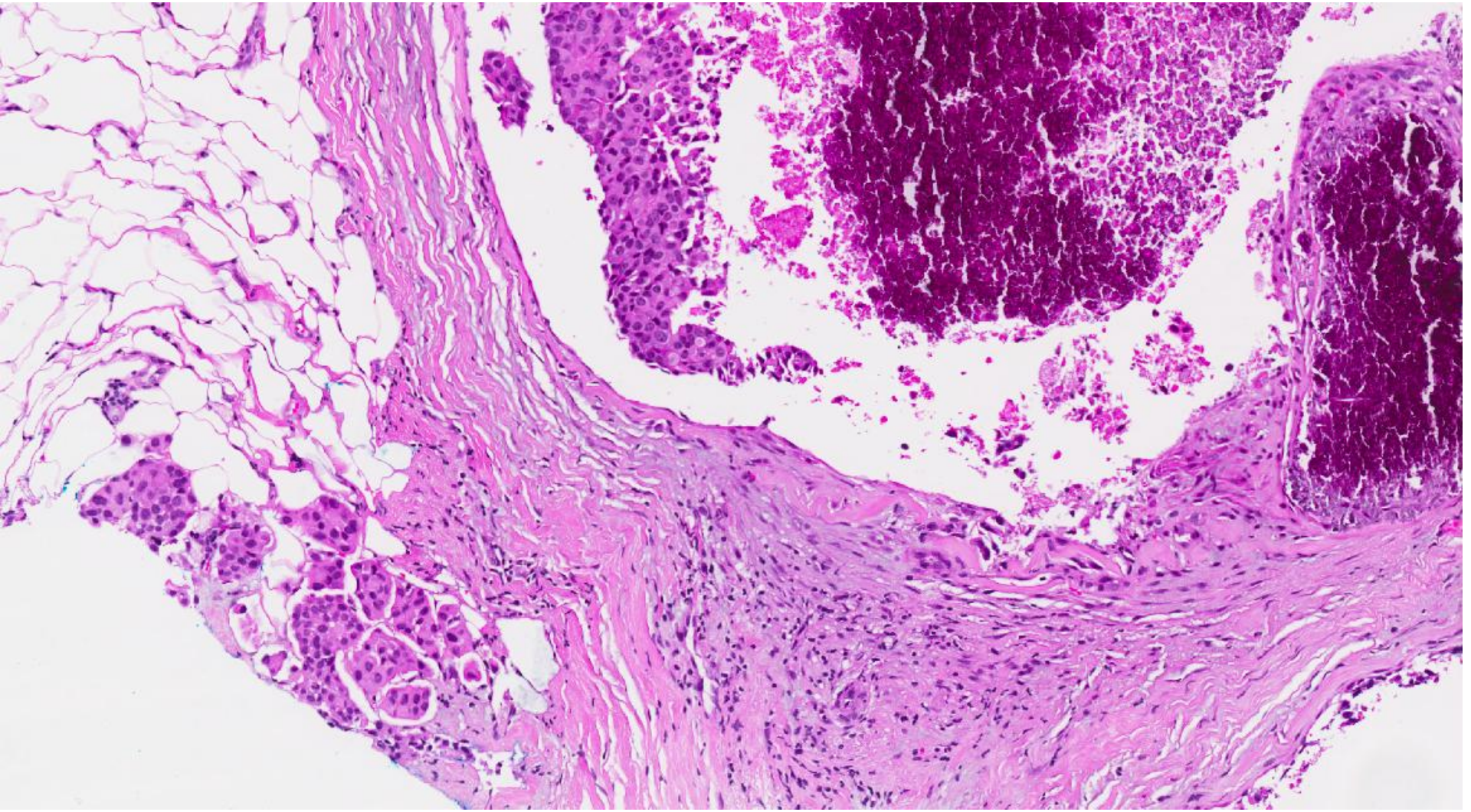


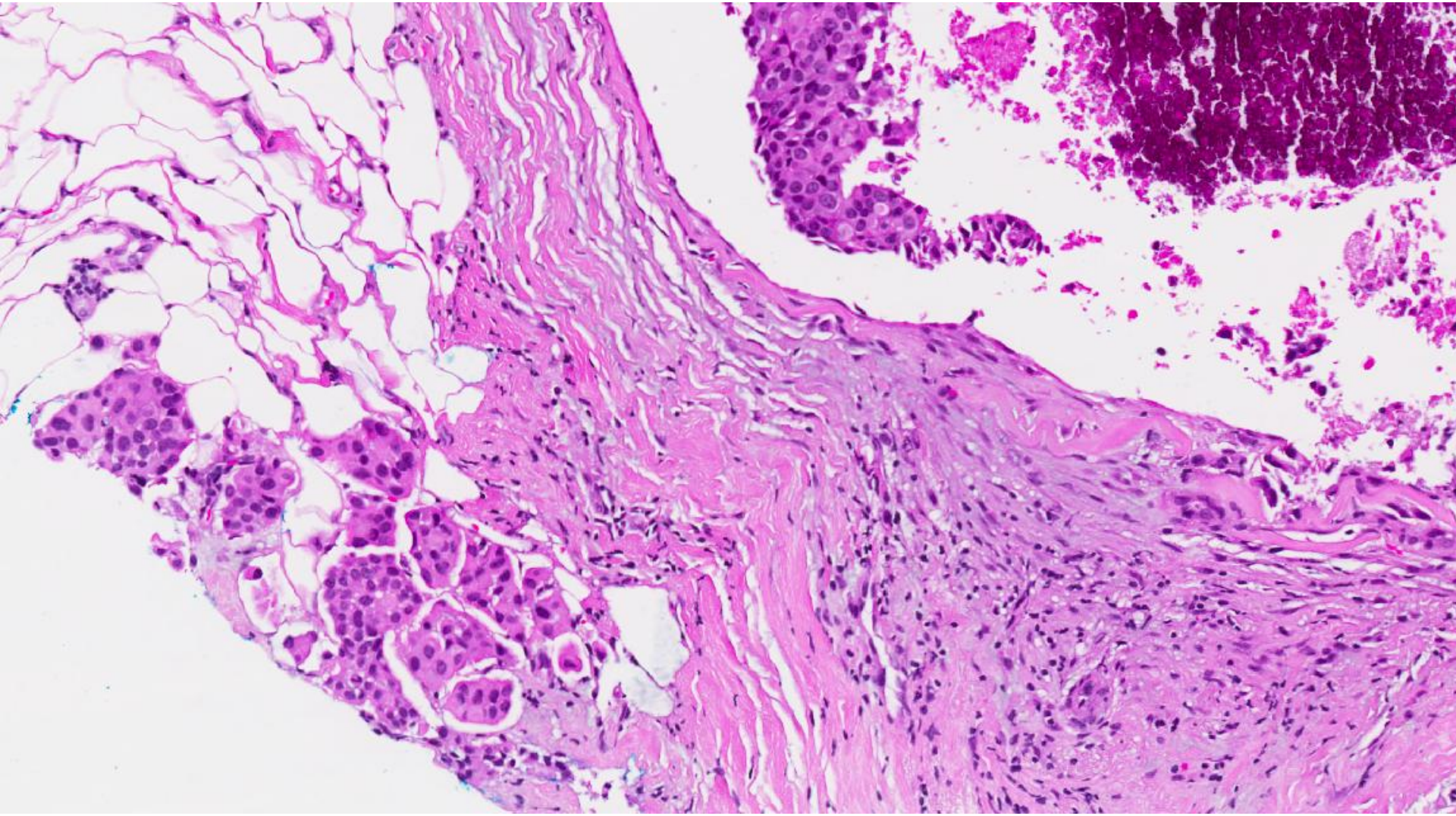












Diagnosis

- Invasive carcinoma with micropapillary features.
- Ductal carcinoma in situ, intermediate to high nuclear grade, with necrosis and calcifications.

Invasive micropapillary carcinoma

- 1.2-2.3% of all invasive breast carcinomas in the pure form.
- More often seen accompanying infiltrative ductal carcinoma, 7%.
- Age range: 28-92 years; mean 52-58 years.
- High incidence of lymphovascular invasion and axillary nodal metastases.
- Minor component also important.

Invasive micropapillary carcinoma

- Grossly:
  - Average tumour size 2-4cm (range 0.1-10cm).
  - 23% reported to be 1cm or less.
  - Non-specific appearance of gray-white, stellate and firm cut surface.

Invasive micropapillary carcinoma

- Microscopically:
  - Solid/tubular epithelial nests within clear spaces.
  - Spaces due to artefactual shrinkage, not seen on frozen sections.
  - Lack of true fibrovascular cores.
  - Commonly constitutes < 20% tumour when seen accompanying infiltrative ductal carcinoma.
  - Histologic grade 3 (58-82%).
  - Lymphovascular invasion (63-76%).
  - Multifocality (31%).
  - Lymph node positivity (69-95%).
  - Small tumours (T1a and T1b) are also associated with a high incidence of axillary nodal metastases (64% and 75% respectively).

Invasive micropapillary carcinoma

- Immunohistochemistry:
  - EMA shows characteristic “inside-out” pattern.
  - ER positivity in 61-90%, PR positivity 61-70%.
  - cerbB2 positivity up to 54%.
- Molecular studies:
  - Comparative genomic hybridization (CGH) showed average of 7.4 chromosomal alterations per case (lower than tumours of no special type).
  - 8p loss with 88% showing 8q gains.

Invasive micropapillary carcinoma

- Prognosis:
  - Local recurrence rate of 22% (vs 12% for ductal NOS).
  - Distant metastatic rate similar to ductal NOS (25% vs 23%).
  - Mortality within 9 years of 28% vs 18% (ductal NOS).
  - 46% mortality with a follow-up of 143 months.
  - 42-52% of cases present with 4 or more positive lymph nodes.
  - Overall survival similar to other subtypes when matched stage for stage.