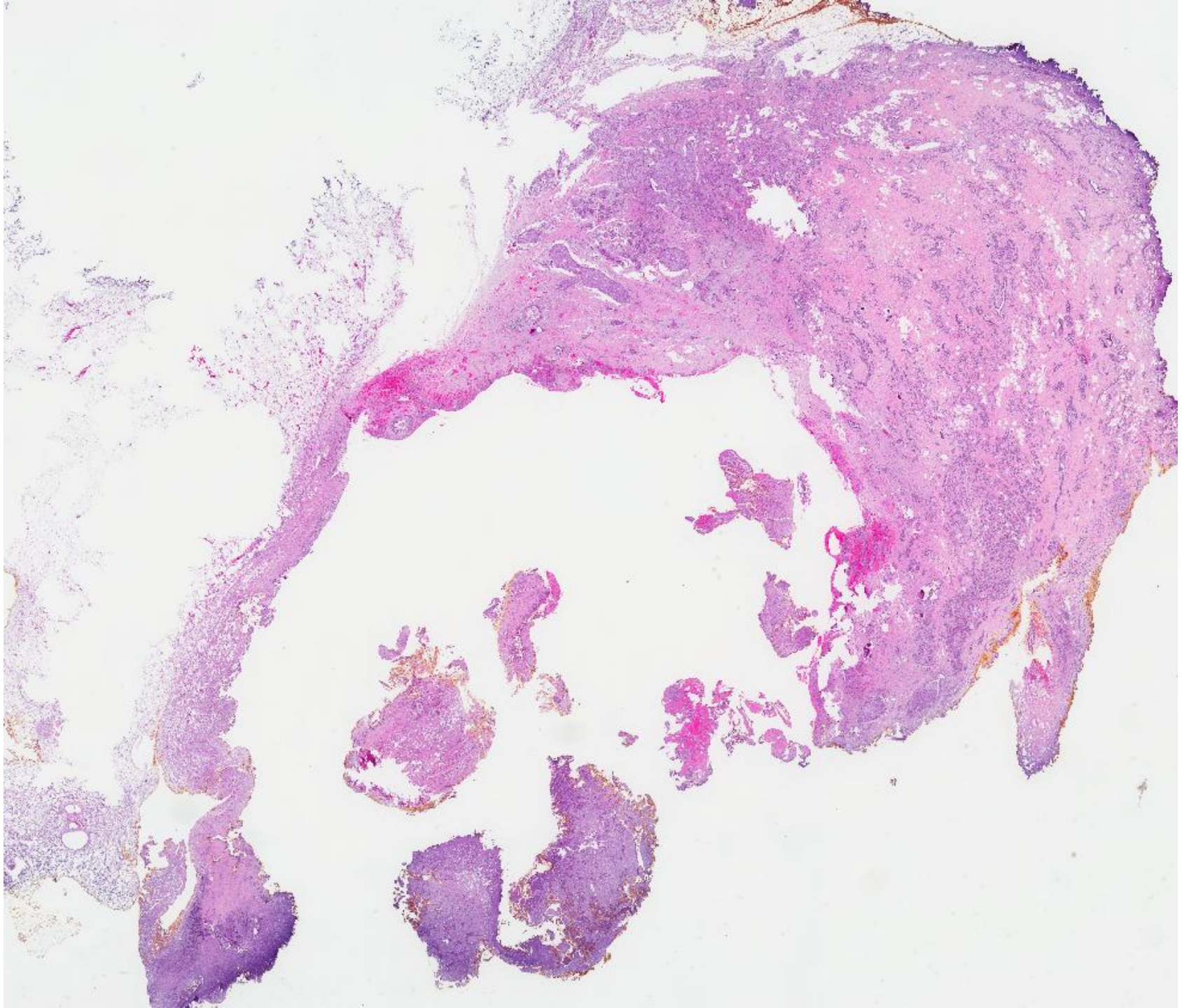
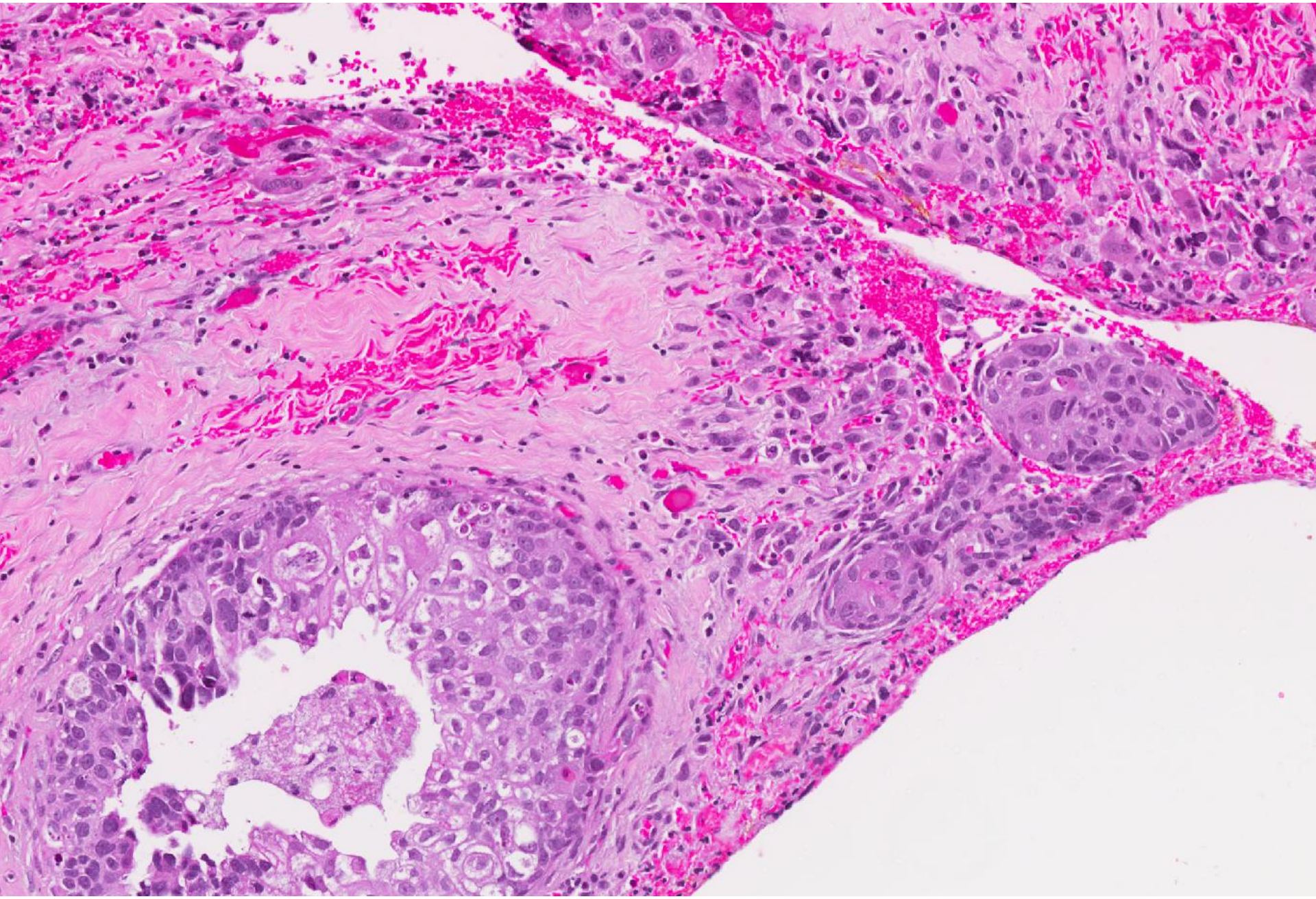
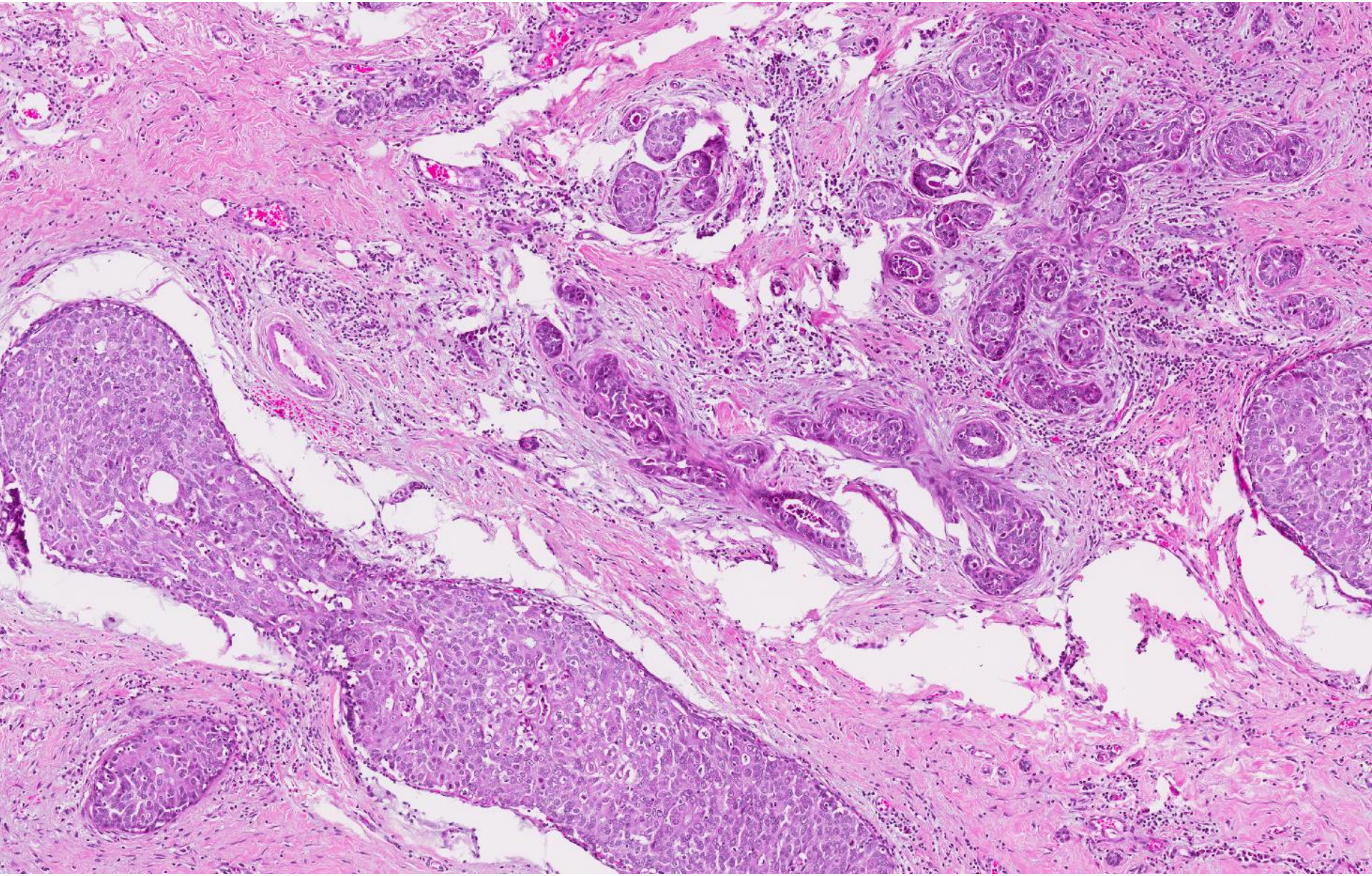
Case 5

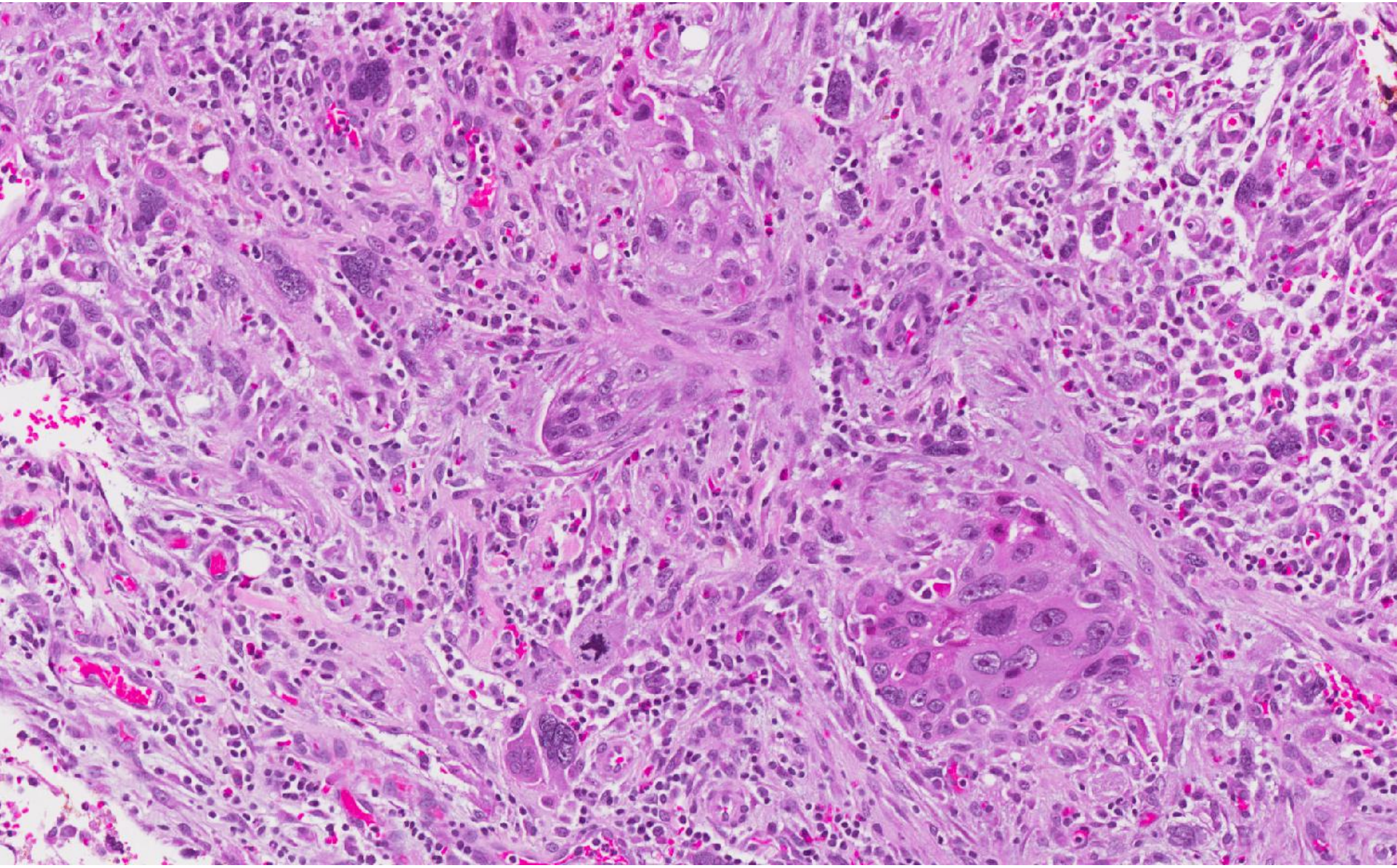
62 year old Indonesian lady presented with a right breast lump

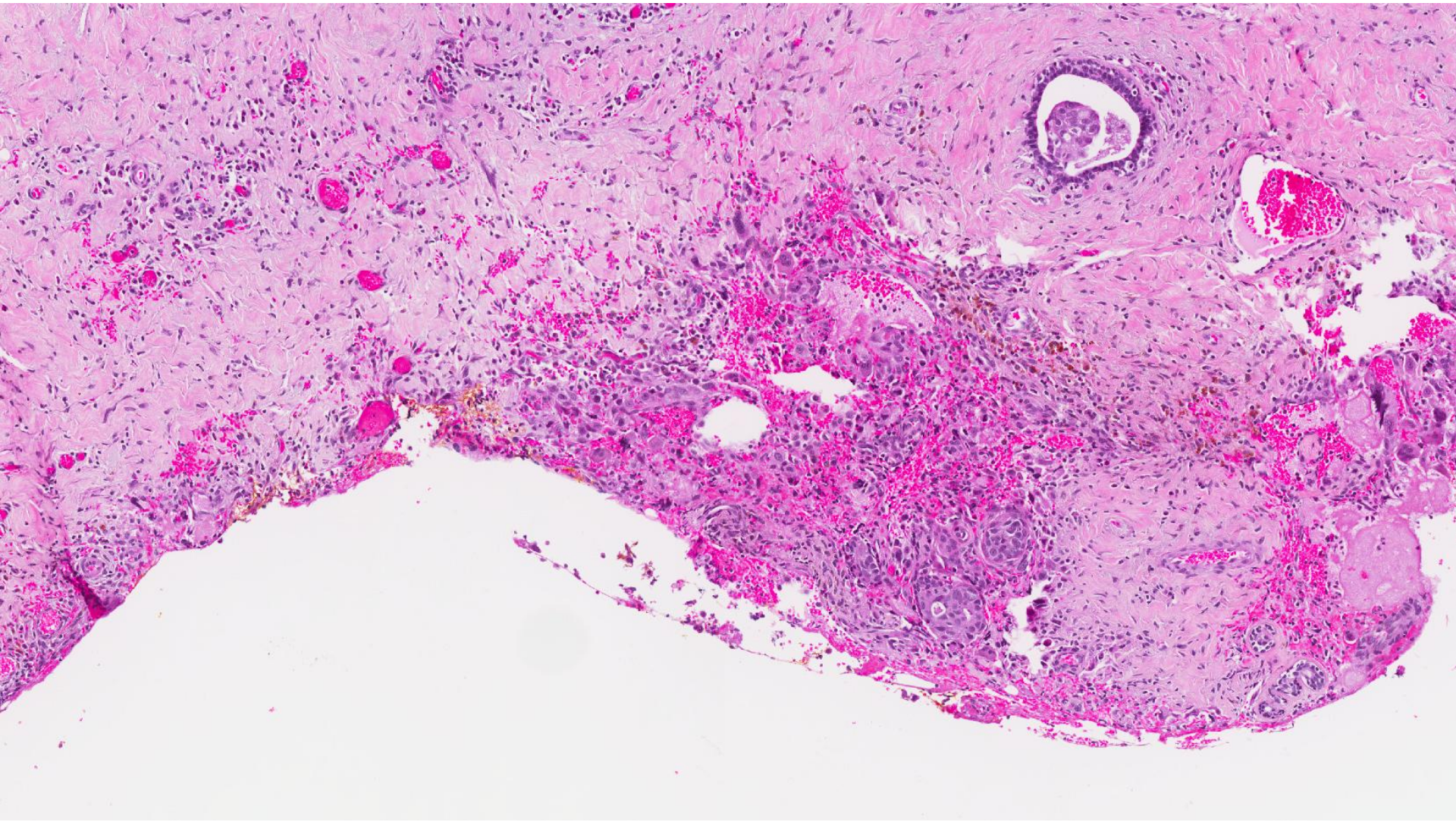
Excision was performed

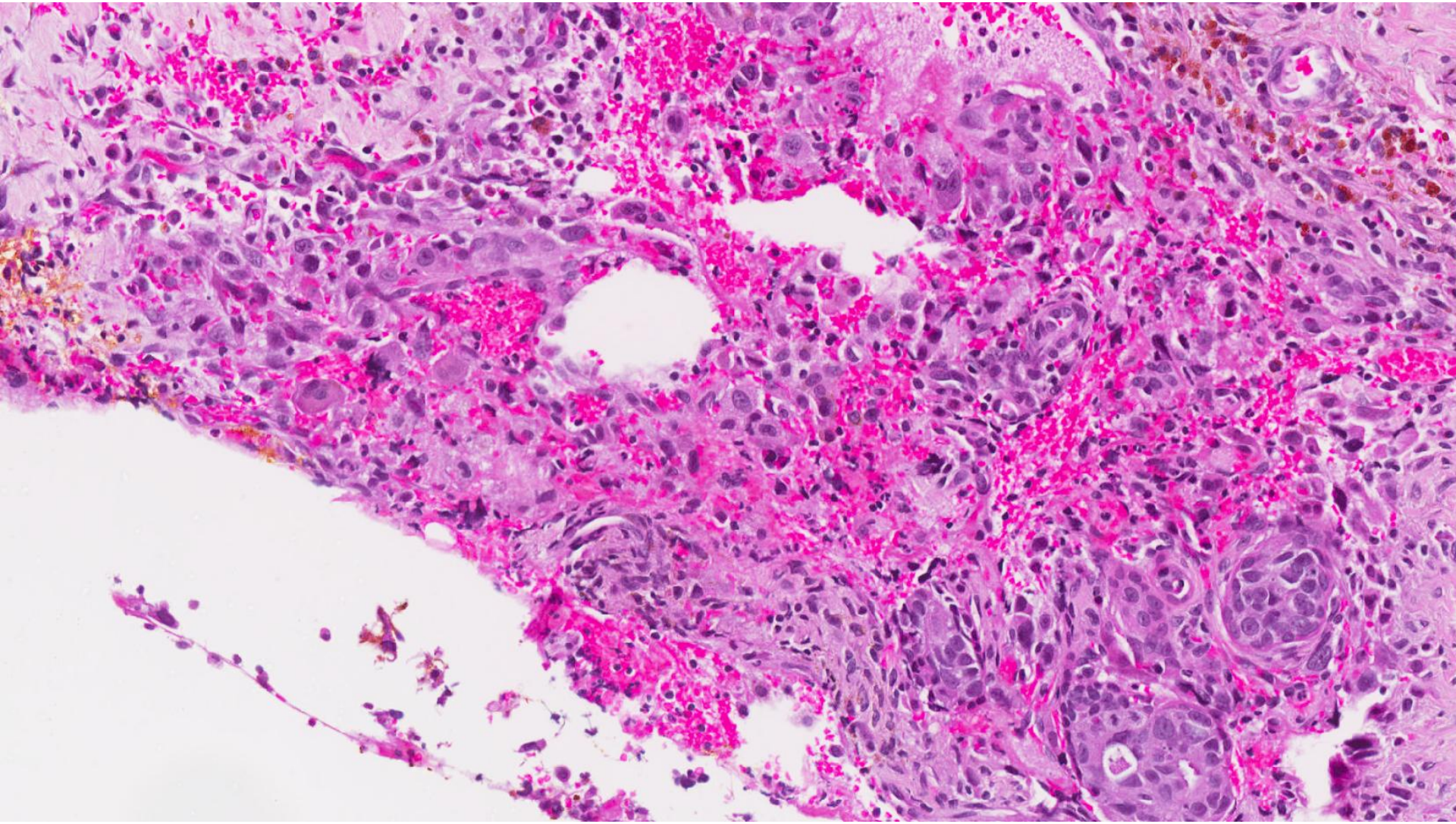


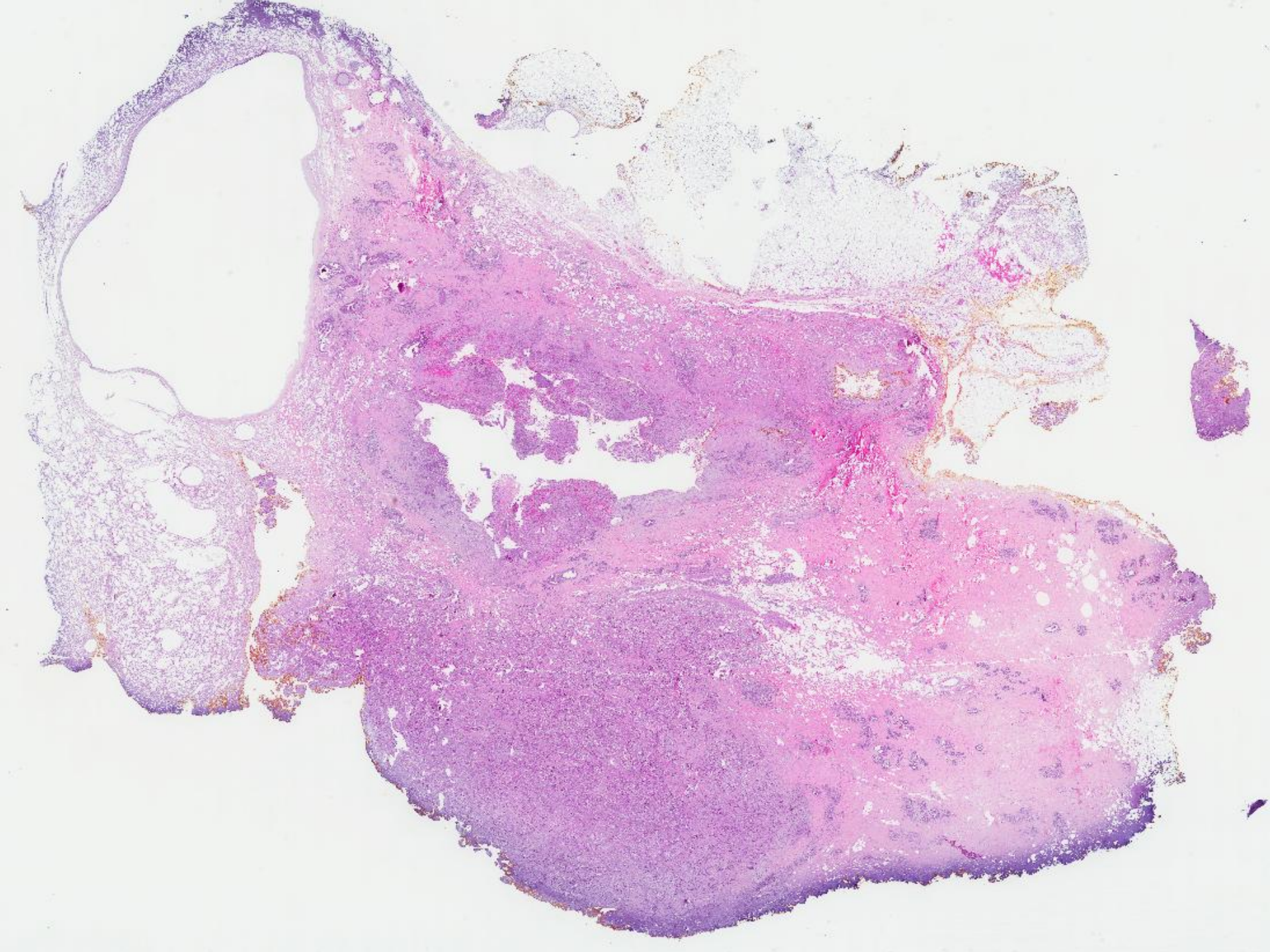


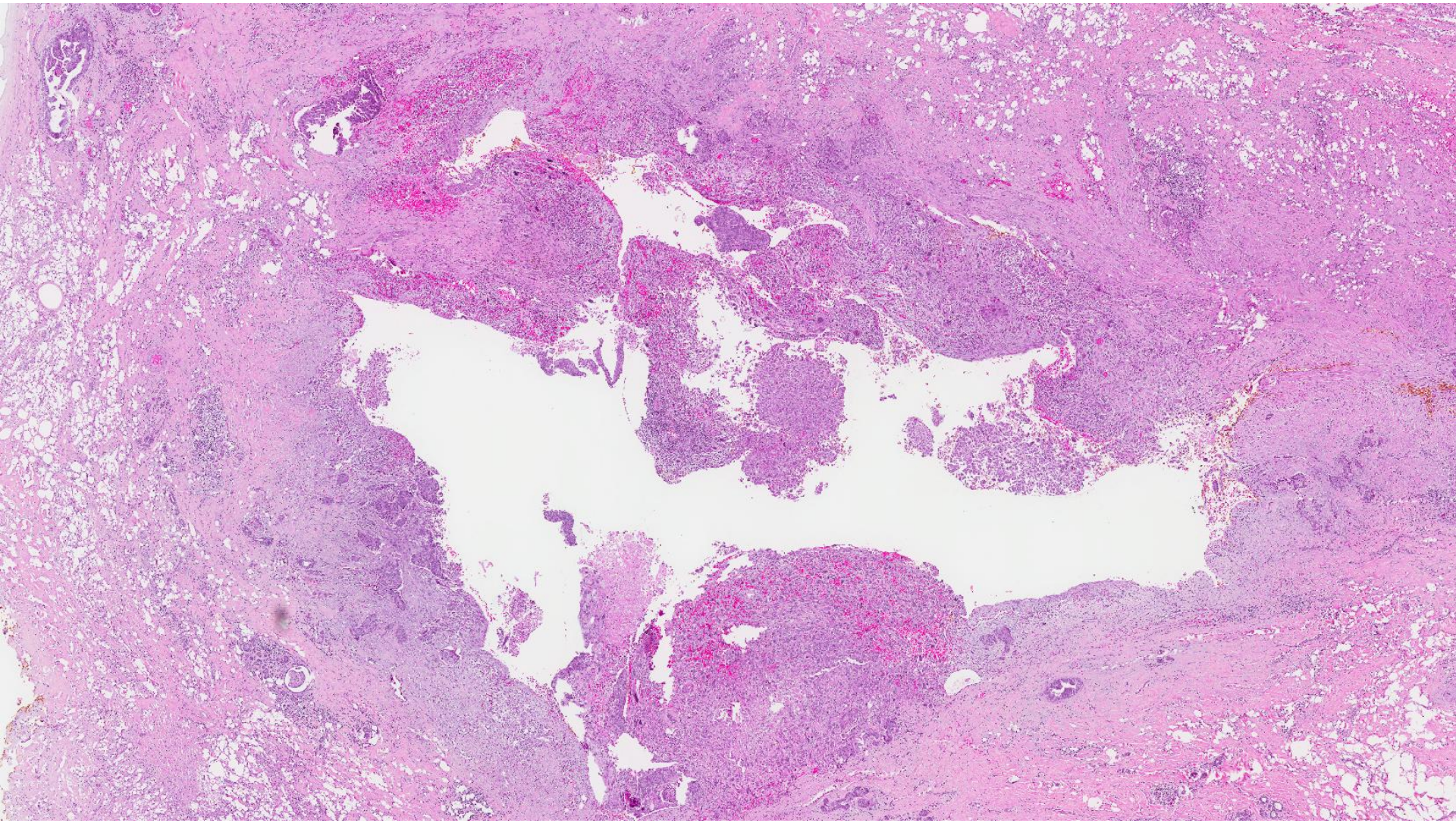


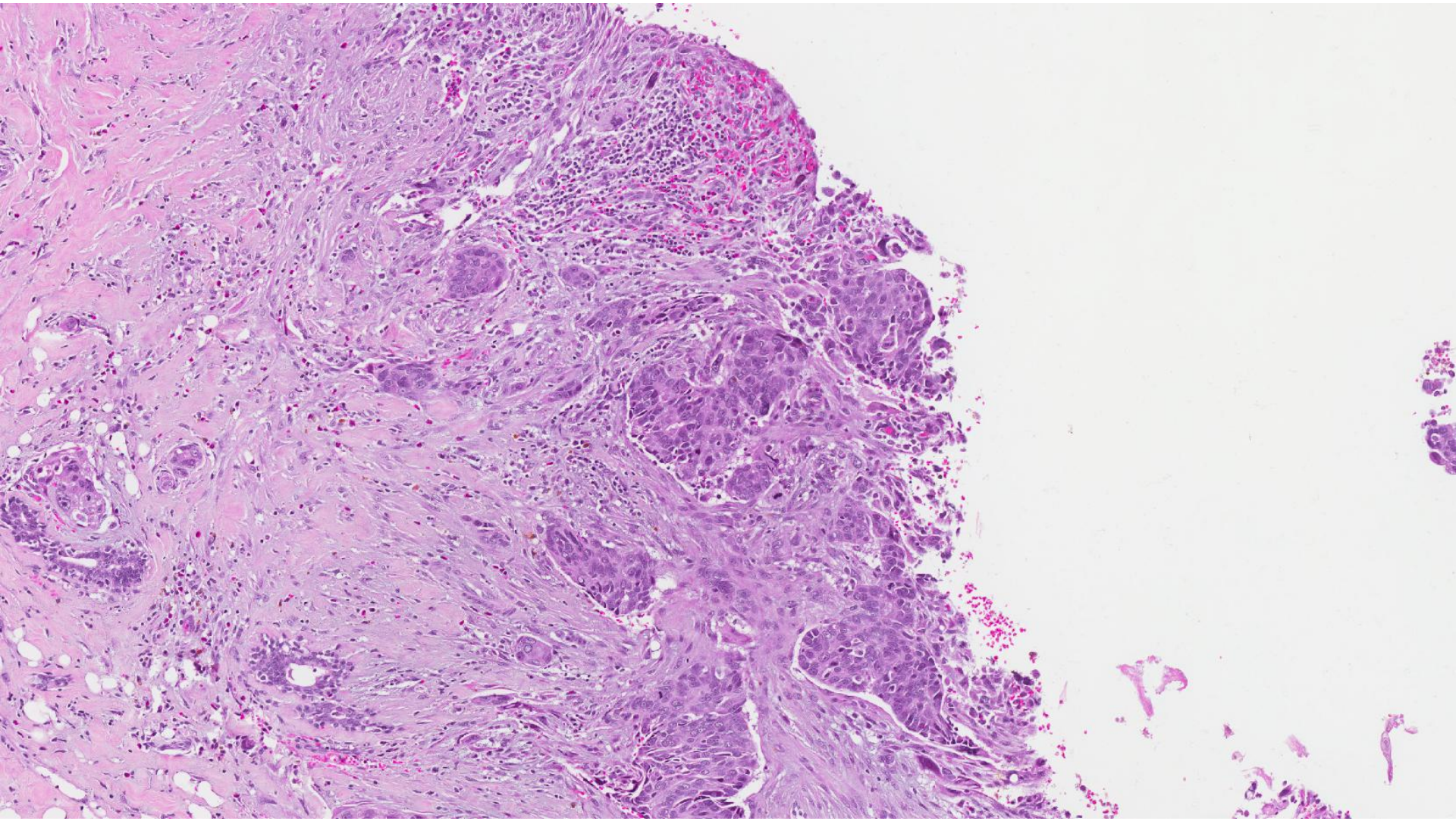


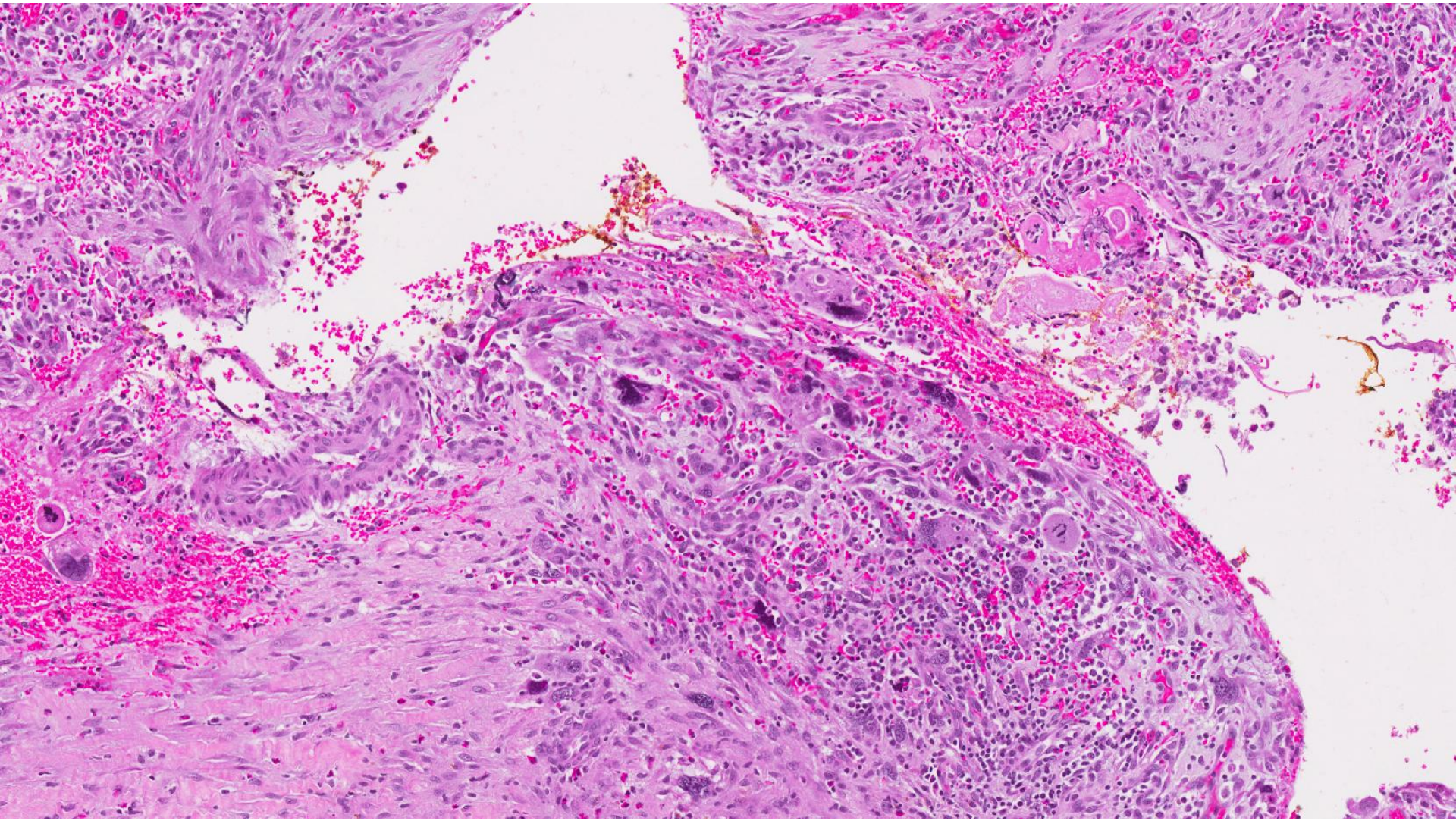


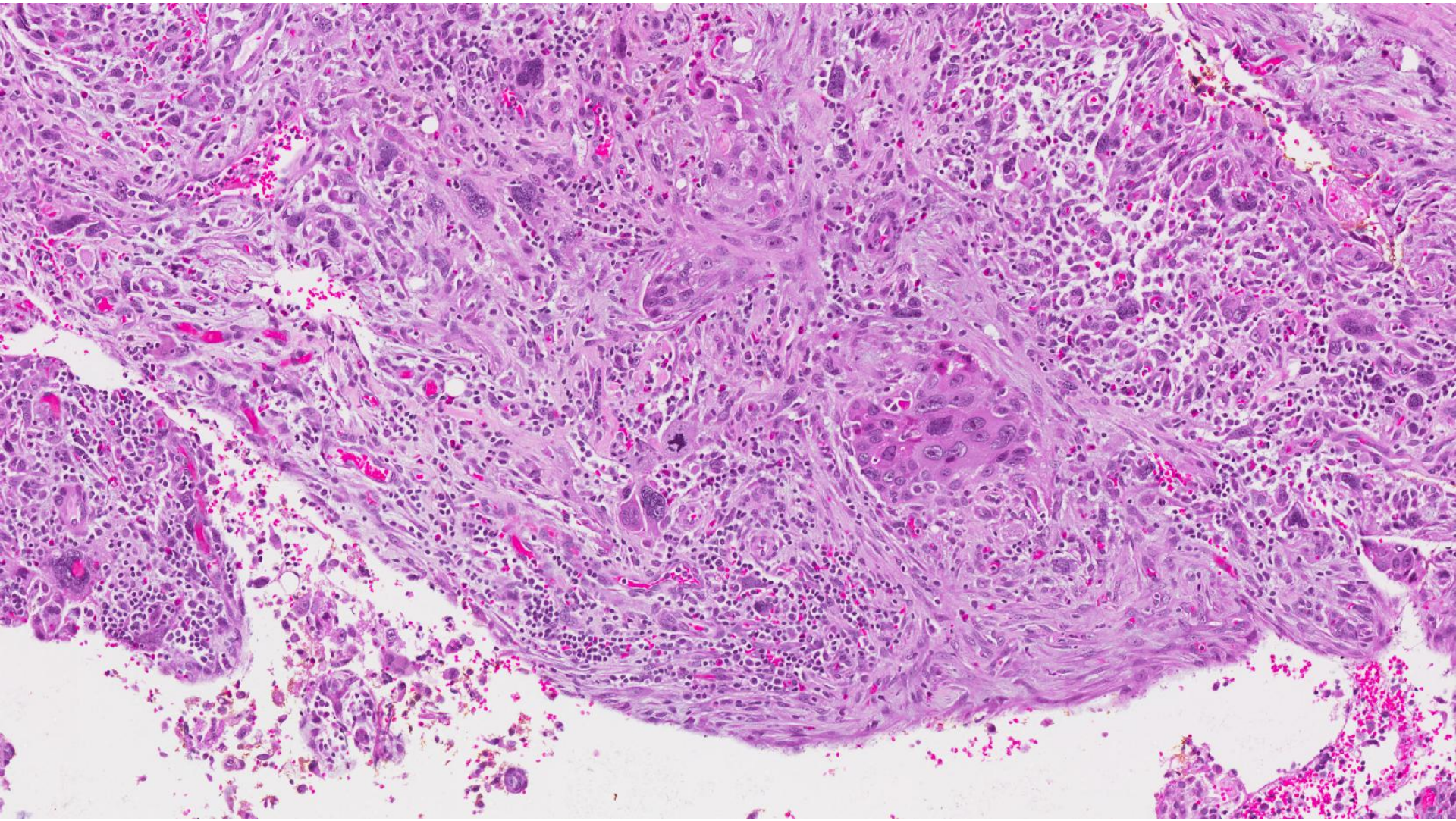


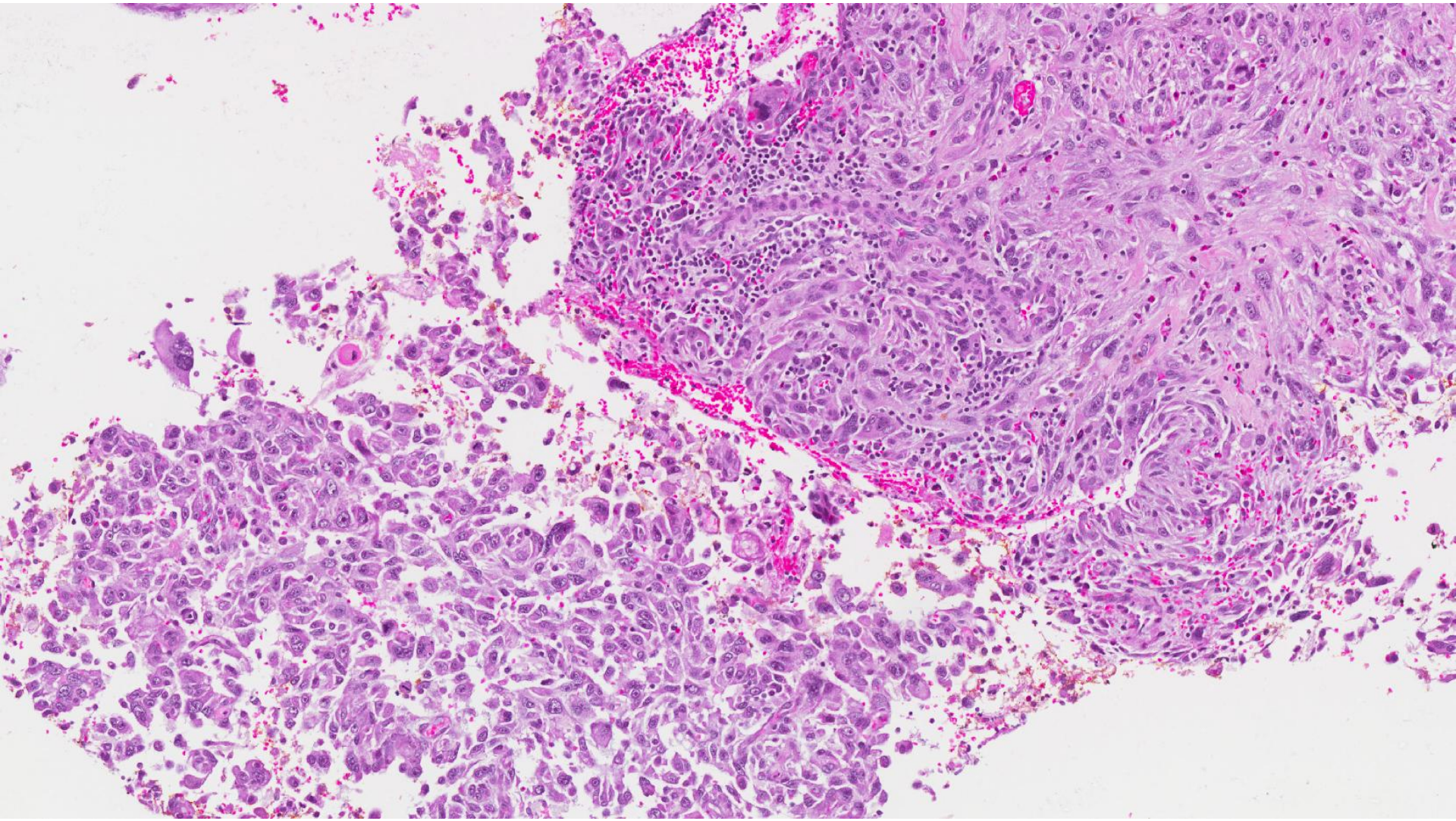


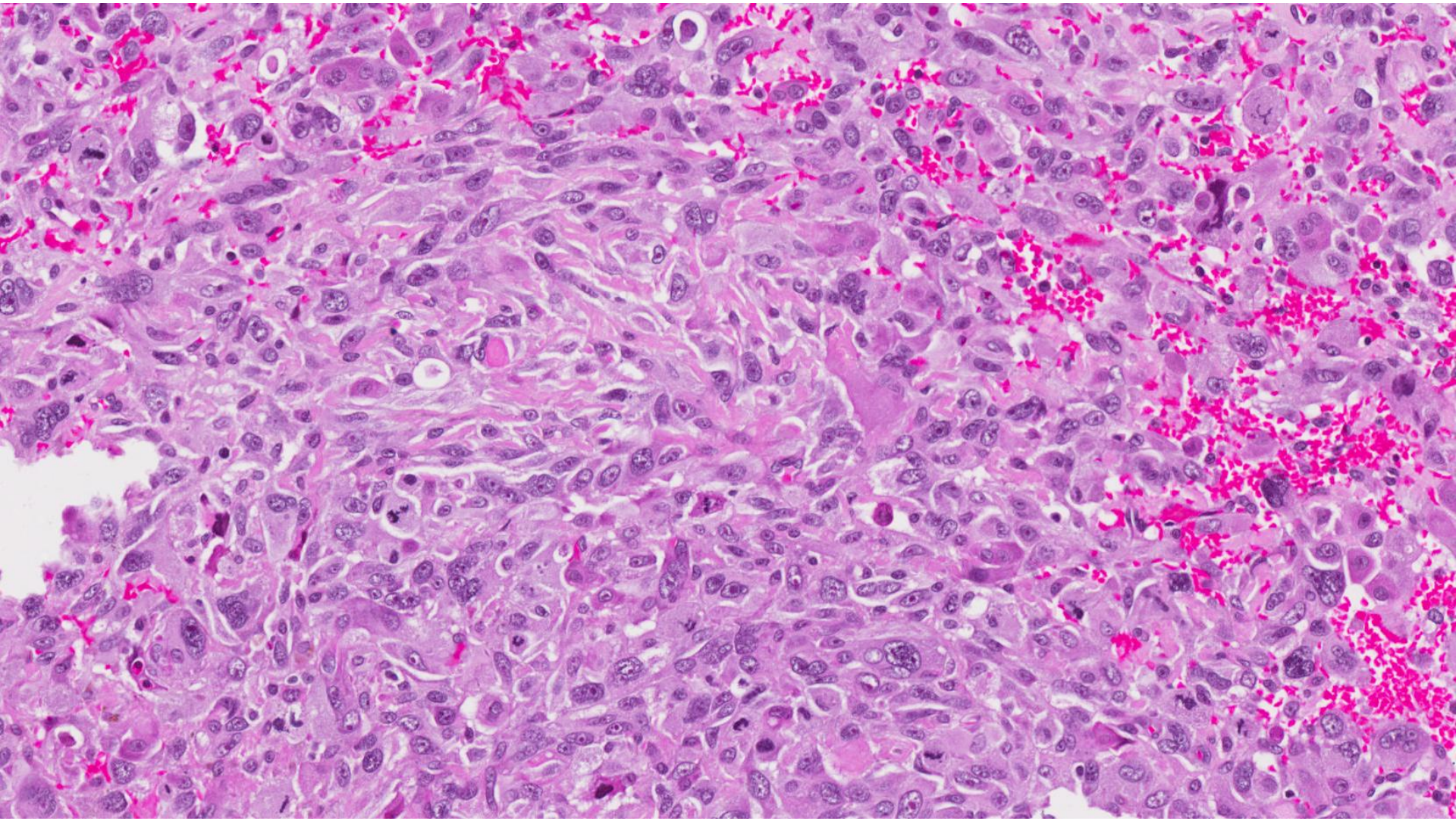


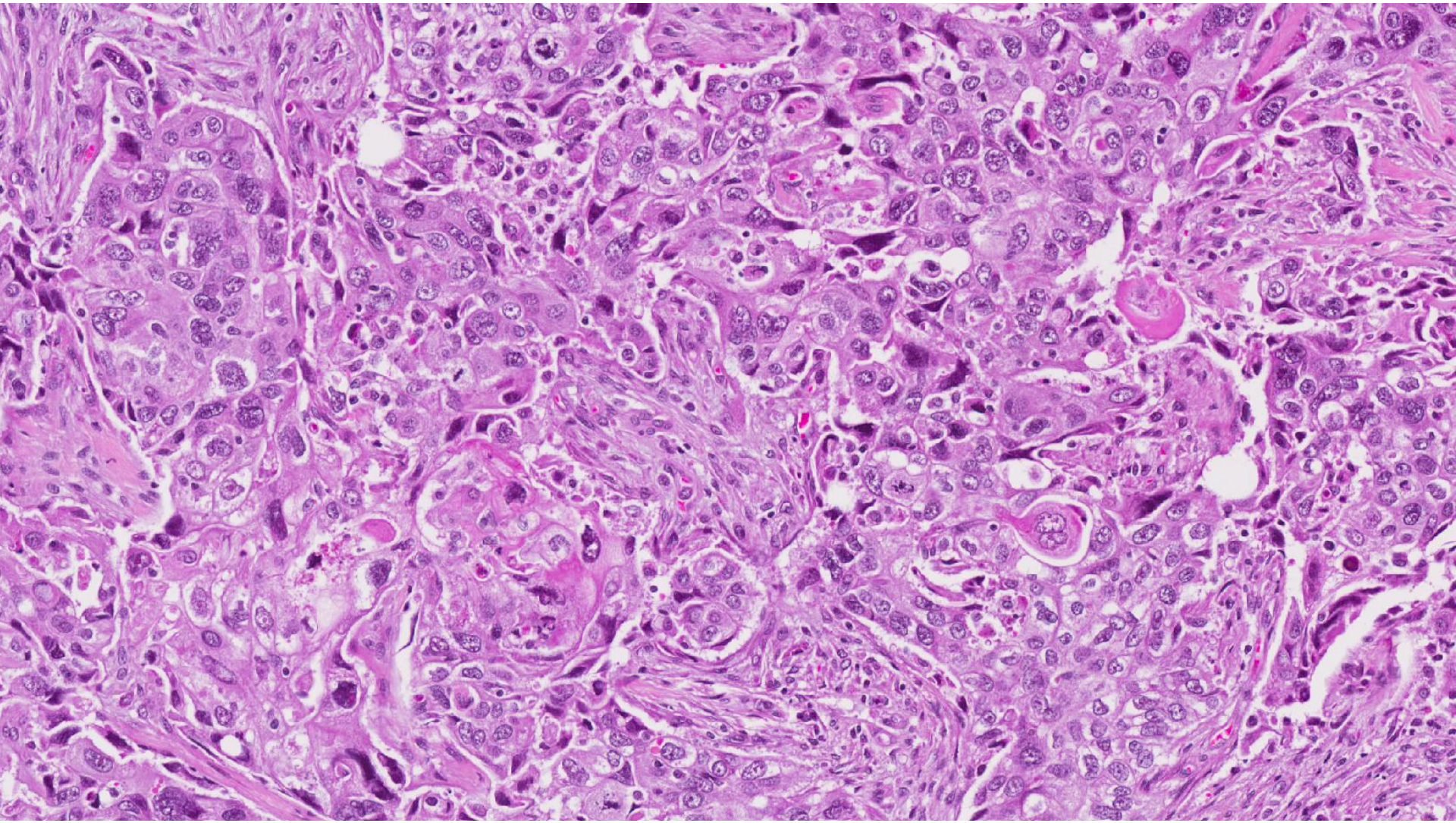












Diagnosis

Metaplastic carcinoma with squamous and spindle cell differentiation, grade 3, 16 mm

(ER negative, PR negative, cerbB2 negative)

Metaplastic carcinoma

- Group of neoplasms characterised by differentiation of neoplastic epithelium into squamous and/or mesenchymal-like elements.
- Can be composed entirely of metaplastic elements, or a complex admixture of carcinoma and metaplastic elements.
- Synonyms:
  - Carcinosarcoma, sarcomatoid carcinoma, carcinoma with pseudosarcomatous metaplasia, carcinoma with pseudosarcomatous stroma, spindle cell carcinoma, matrix producing carcinoma, matrix producing breast cancer, adenosquamous carcinoma, low grade adenosquamous carcinoma, fibromatosis-like metaplastic carcinoma.

Metaplastic carcinoma: *Classification*

- Low grade adenosquamous carcinoma
- Fibromatosis-like metaplastic carcinoma
- Squamous cell carcinoma
- Spindle cell carcinoma
- Carcinoma with mesenchymal differentiation
  - Chondroid differentiation
  - Osseous differentiation
  - Other types of mesenchymal differentiation
- Myoepithelial carcinoma

Metaplastic carcinoma

- Accounts for 0.2-5% of all invasive breast cancers.
- Variable prevalence due to differing definitions.
- Heterogeneous group of tumours.
- Consensus of WHO Working Group to adopt a descriptive classification system.
- Macroscopy:
  - Well-circumscribed or show indistinct irregular borders.
  - Cystic degeneration, especially in metaplastic squamous carcinoma.
  - Tend to be large tumours.

Squamous cell carcinoma

- Usually presents as a cystic lesion, with cavity lined by squamous cells with variable nuclear atypia and pleomorphism.
- Tumour cells infiltrate adjacent stroma in sheets, cords and nests, eliciting a prominent stromal reaction.
- Inflammatory infiltrates usually conspicuous.
- Squamous elements in varying degrees of squamous differentiation with spindle cells at the invasive front.
- Can be pure or mixed with invasive carcinoma NST.
- Must rule out squamous cell carcinoma from other sites, especially the skin, before diagnosing a primary squamous cell carcinoma of the breast.

Spindle cell carcinoma

- Characterised by abnormal spindle cells arranged in fascicular, storiform and other patterns.
- Moderate to marked nuclear pleomorphism.
- Accompanying inflammatory infiltrate.
- Epithelioid and squamous foci can be present.
- Overlaps with myoepithelial carcinoma.
- Spindle cell carcinoma should always be considered as a differential diagnosis in any atypical spindle cell proliferation of the breast.
- Presence of any epithelial differentiation or ductal carcinoma in situ should prompt a diagnosis of spindle cell metaplastic carcinoma.