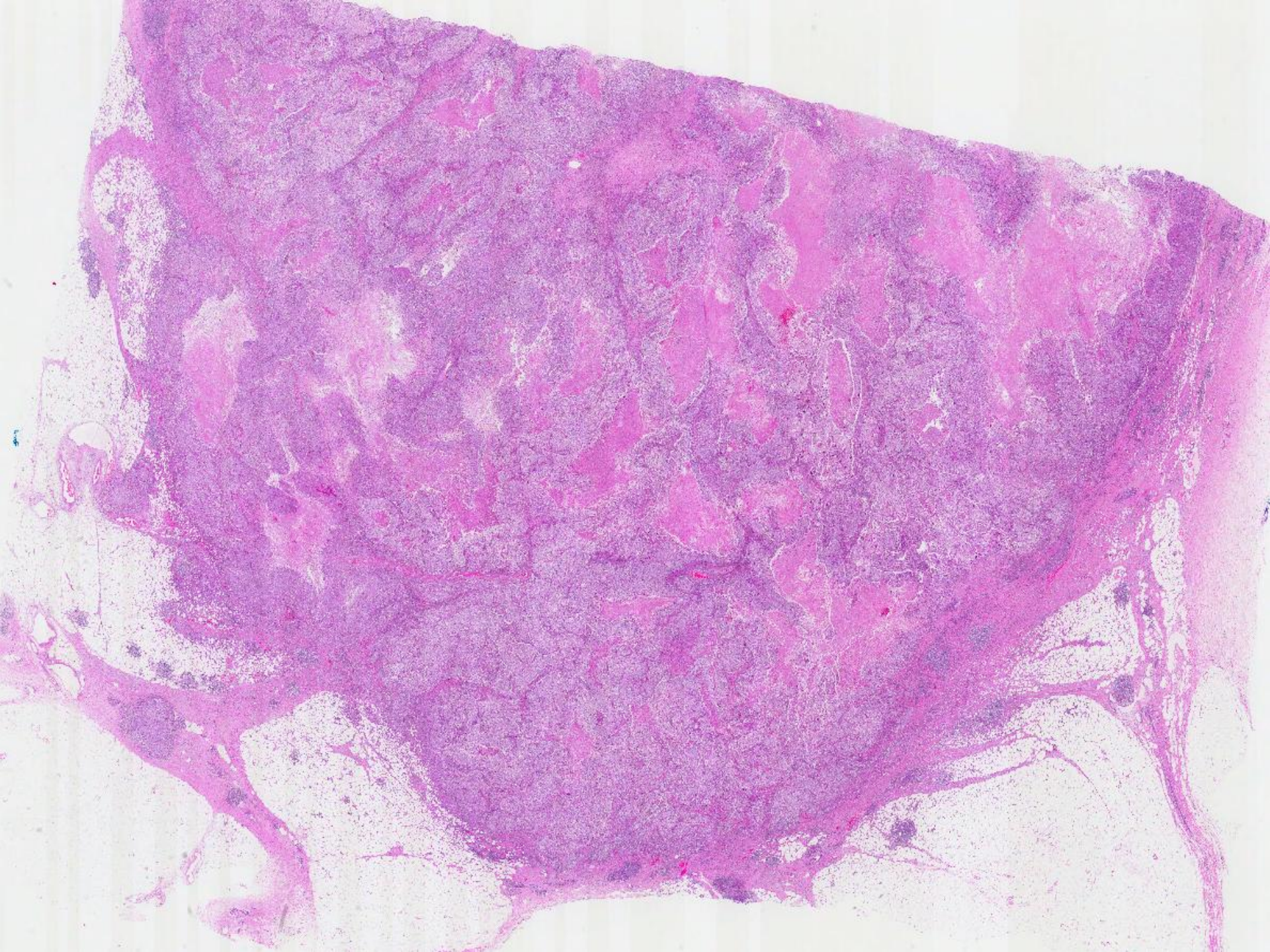


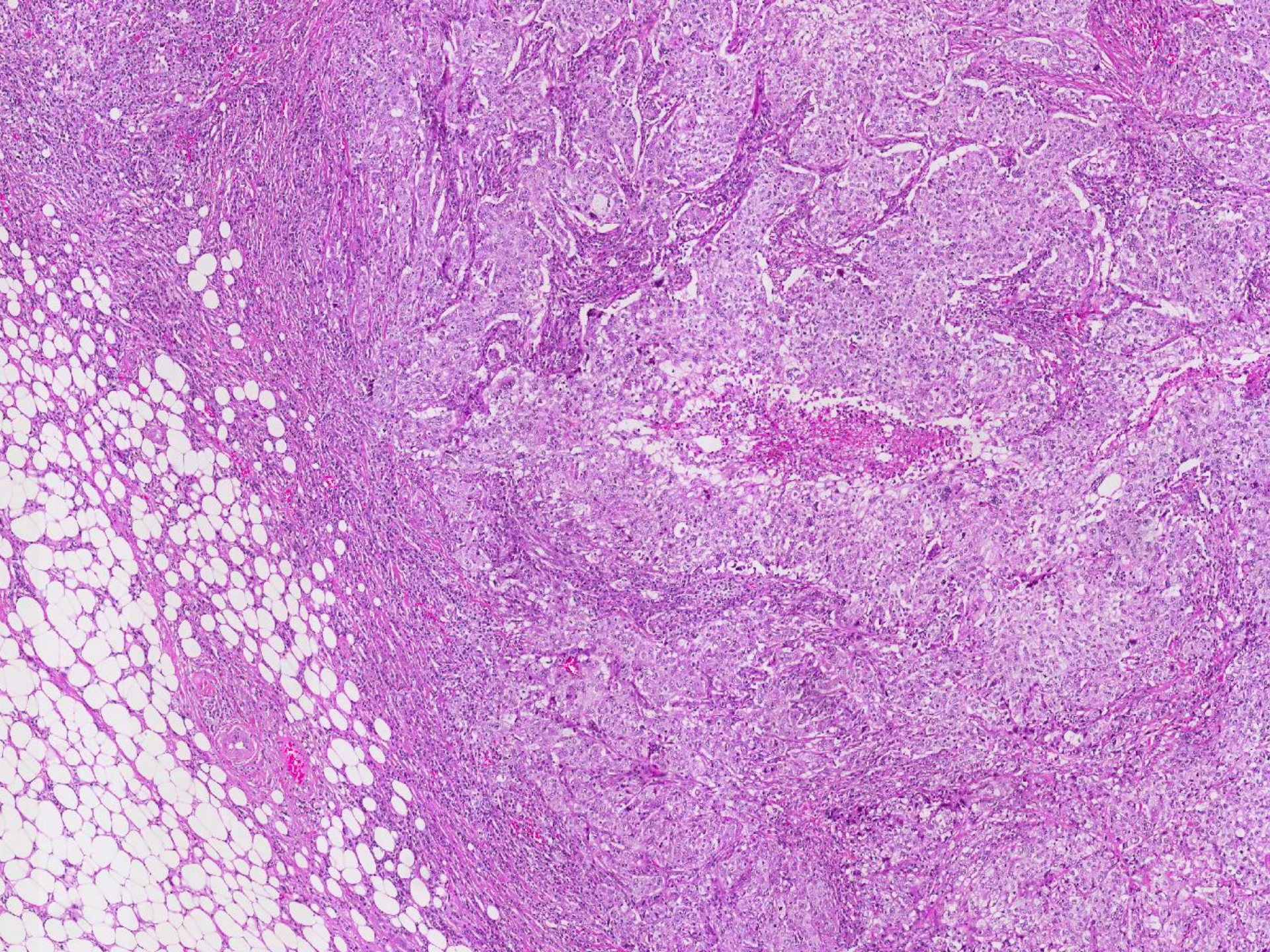
Case 2

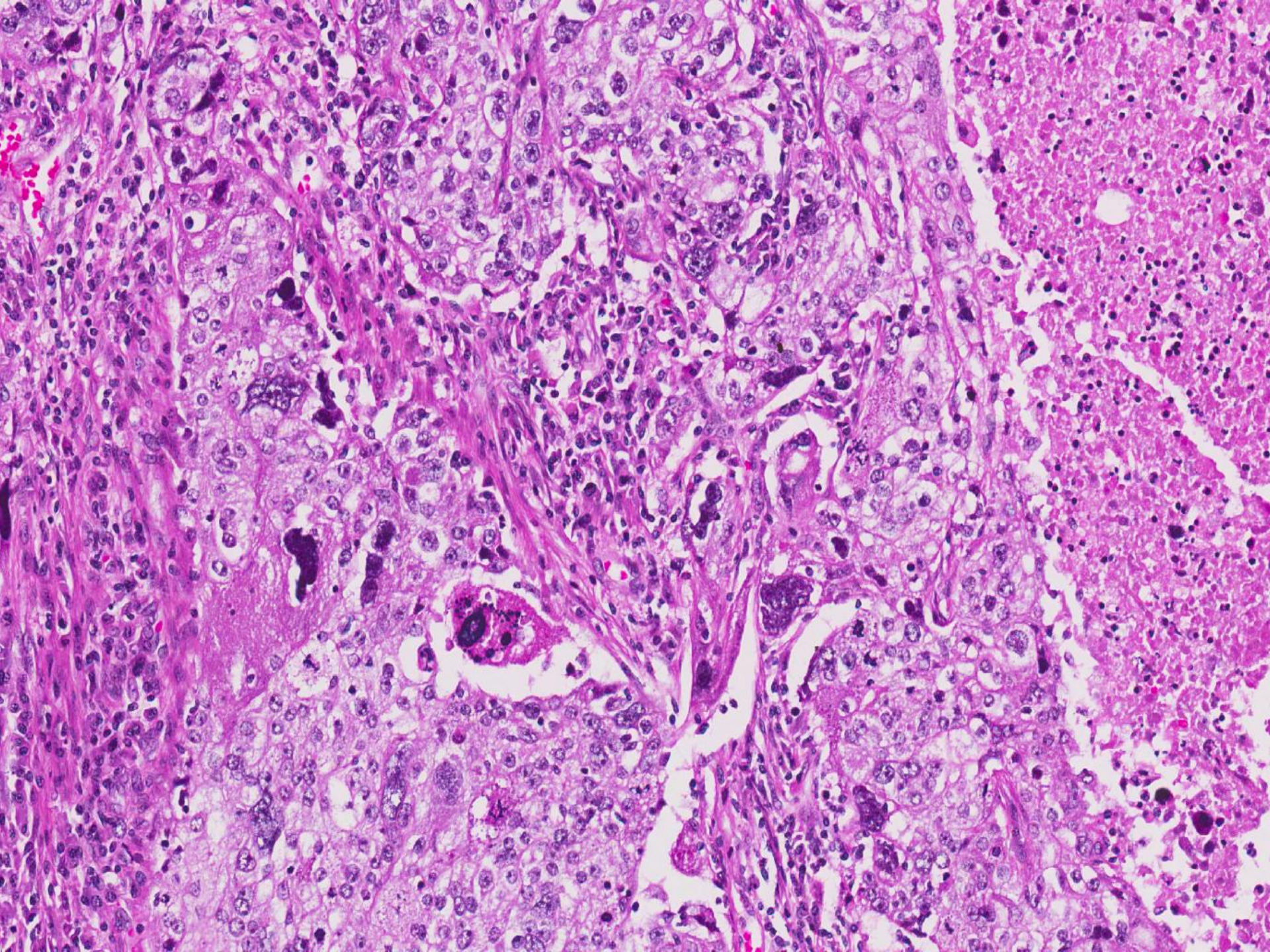
66 year old Chinese woman with a left breast mass.

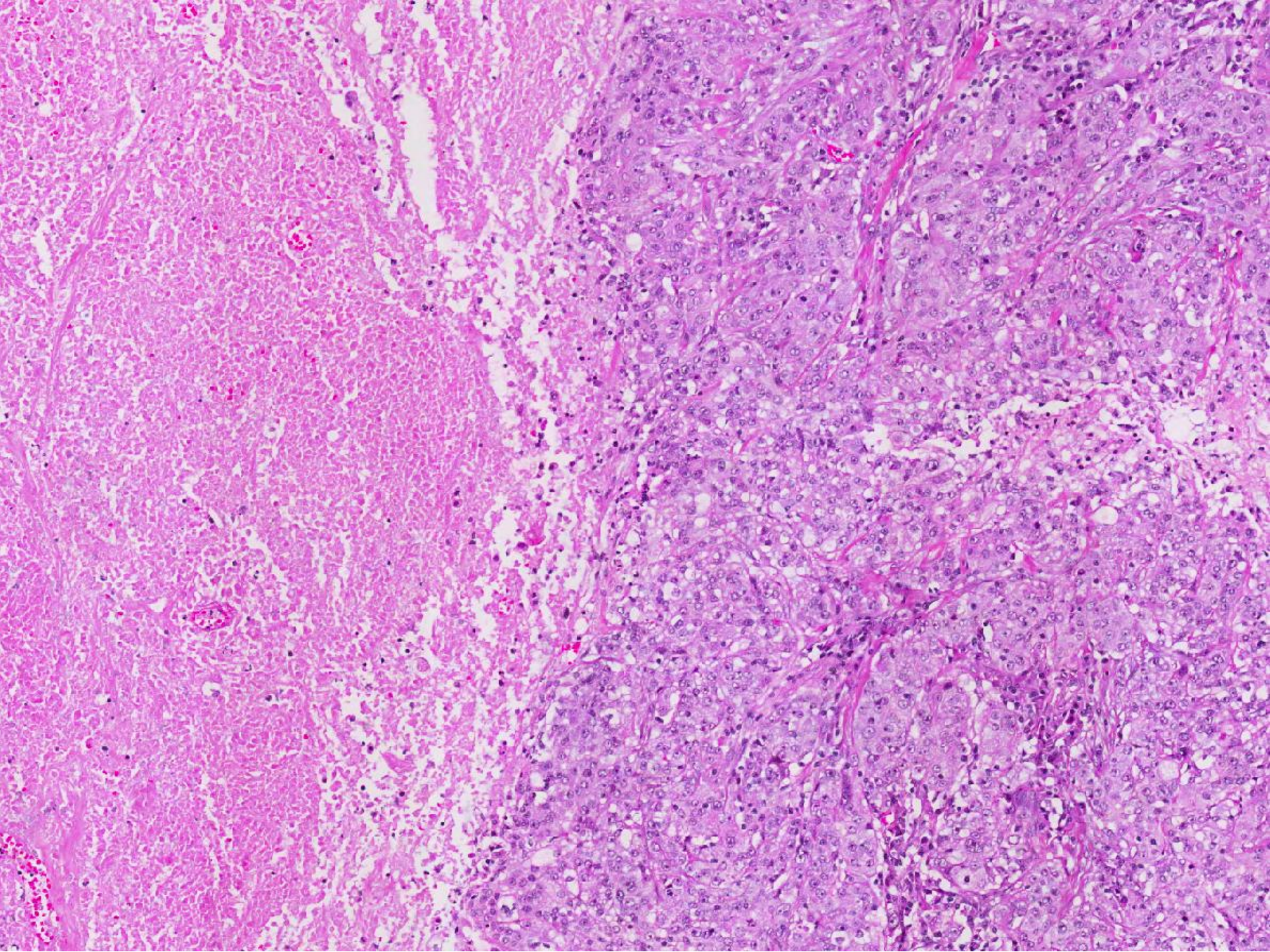
A core biopsy was performed, followed by
mastectomy.

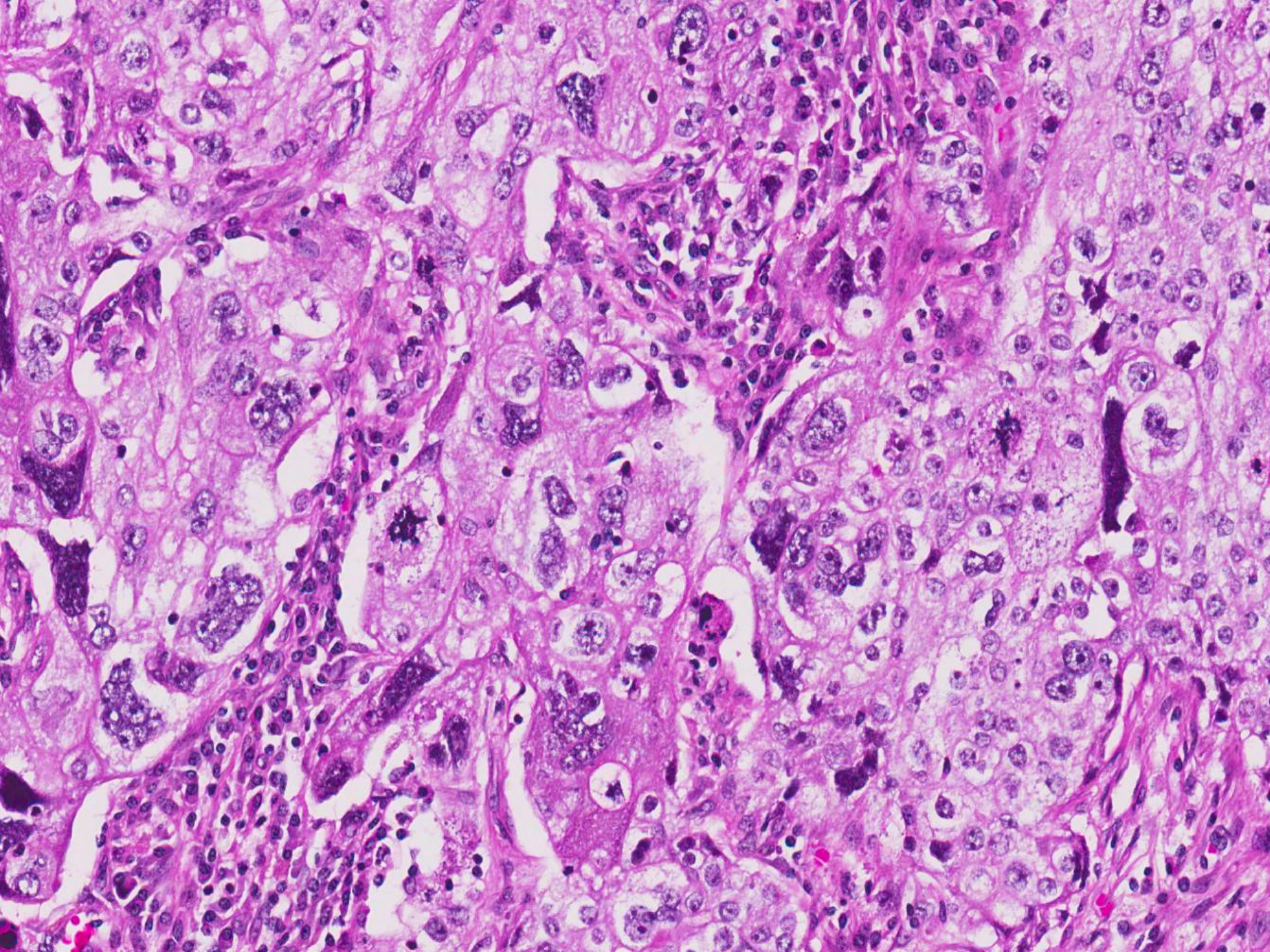
Section of tumour from mastectomy specimen.

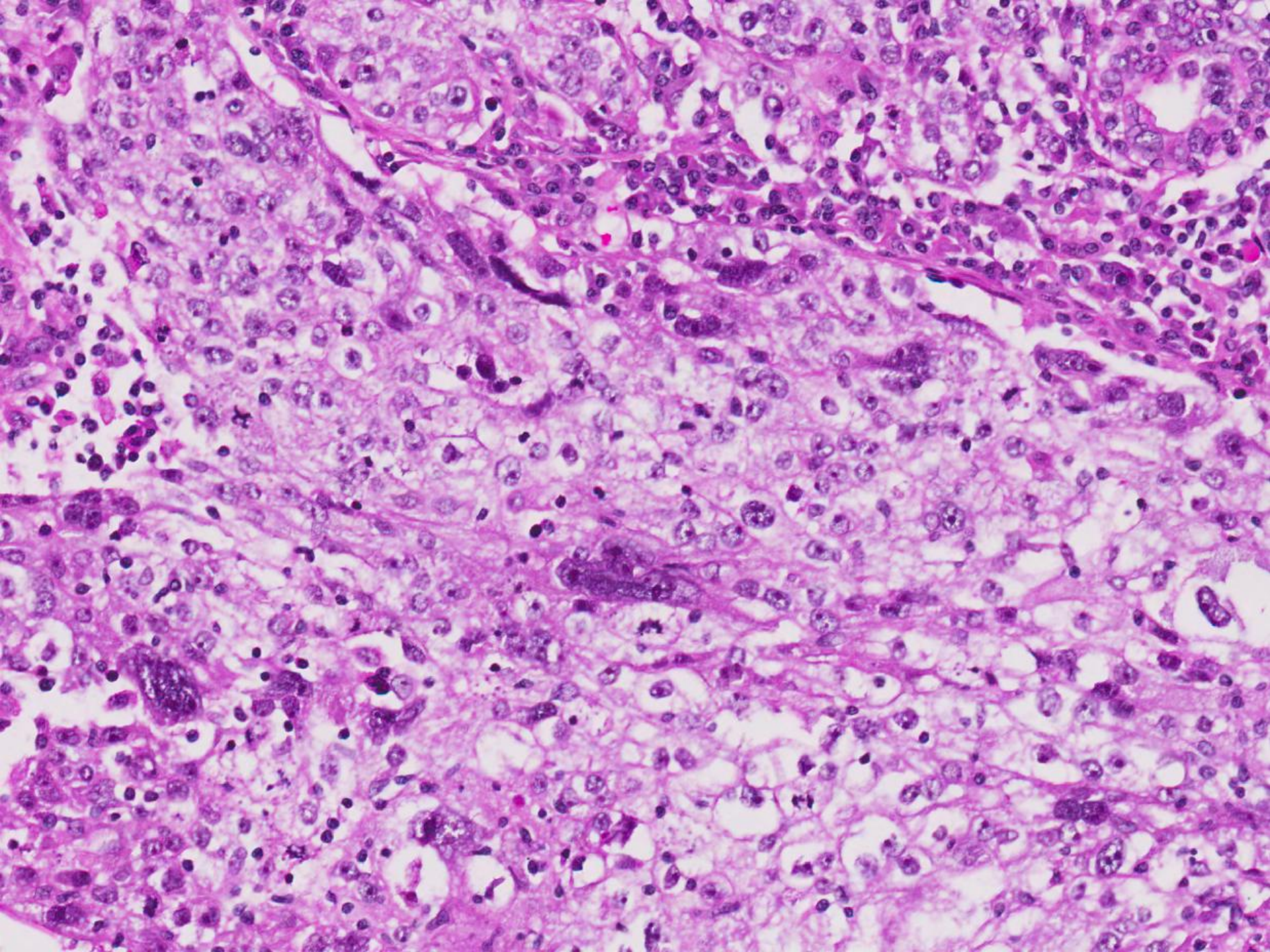




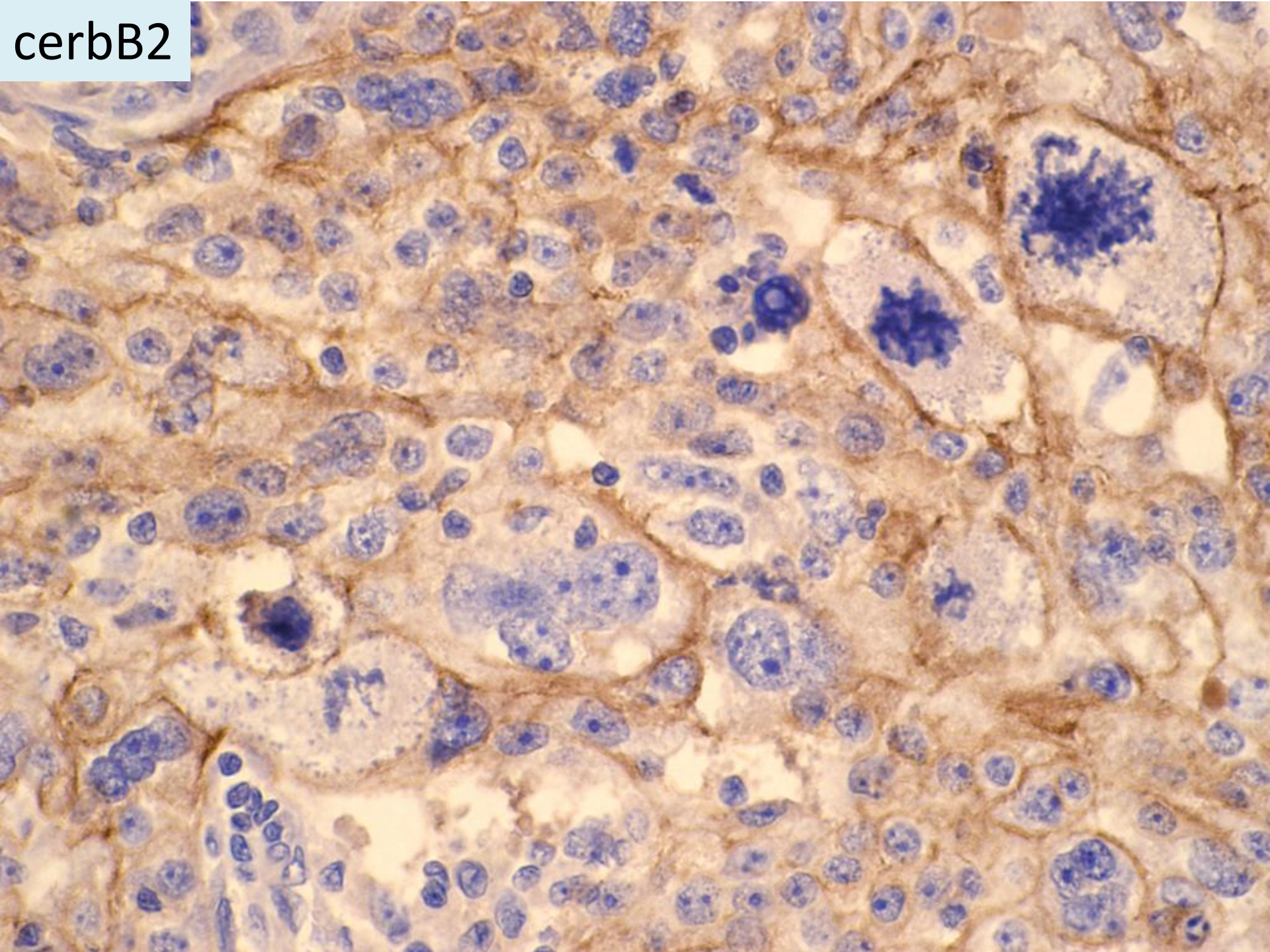








cerbB2



Diagnosis

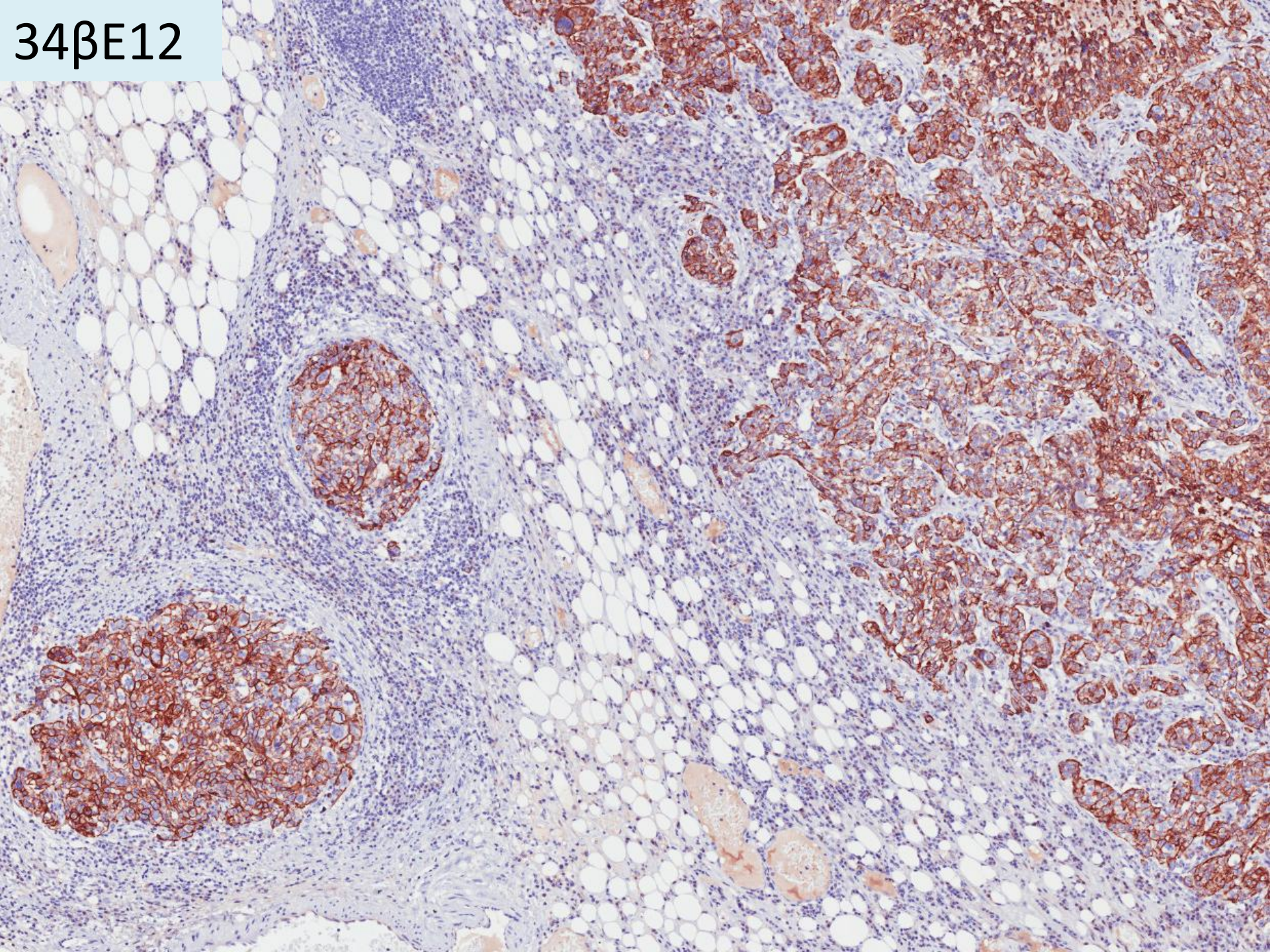
Infiltrative ductal carcinoma, grade 3, with pleomorphic giant cells.

ER negative, PR negative, cerbB2 equivocal (2+).

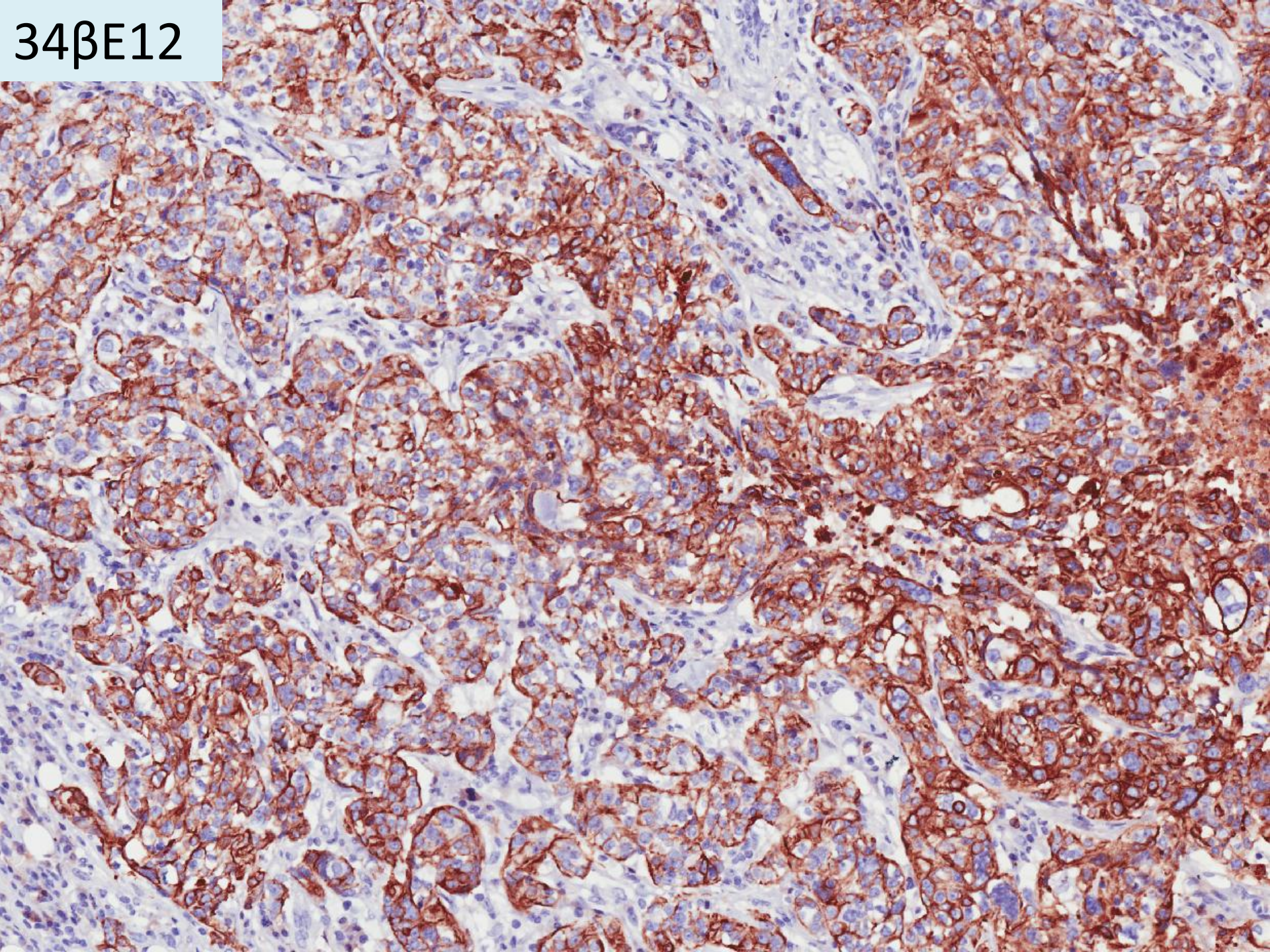
All axillary lymph nodes positive for metastases.

{Subsequent FISH for cerbB2 was not amplified, ratio 1.5, but there was 13.3% genetic heterogeneity}

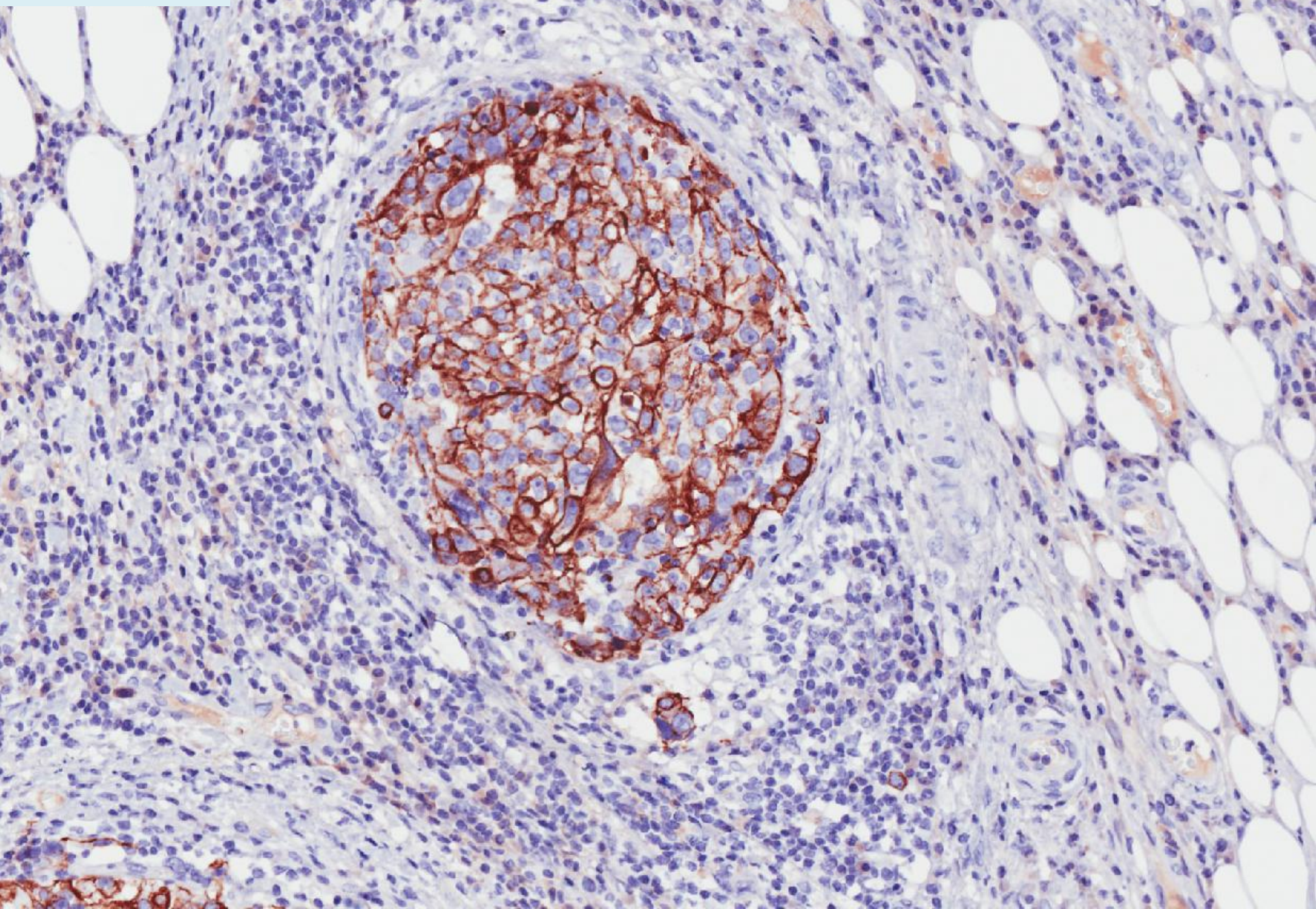
34βE12



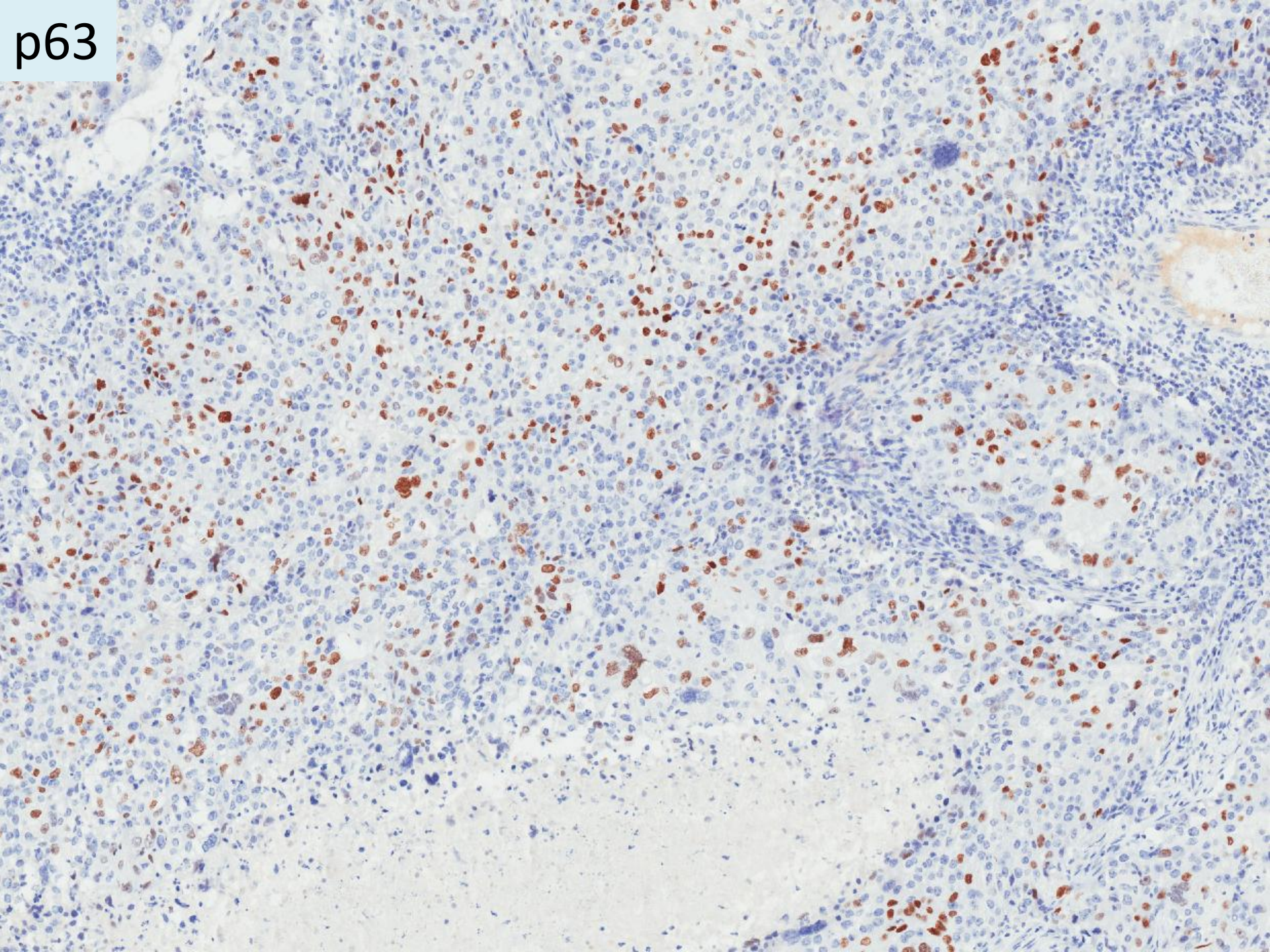
34βE12



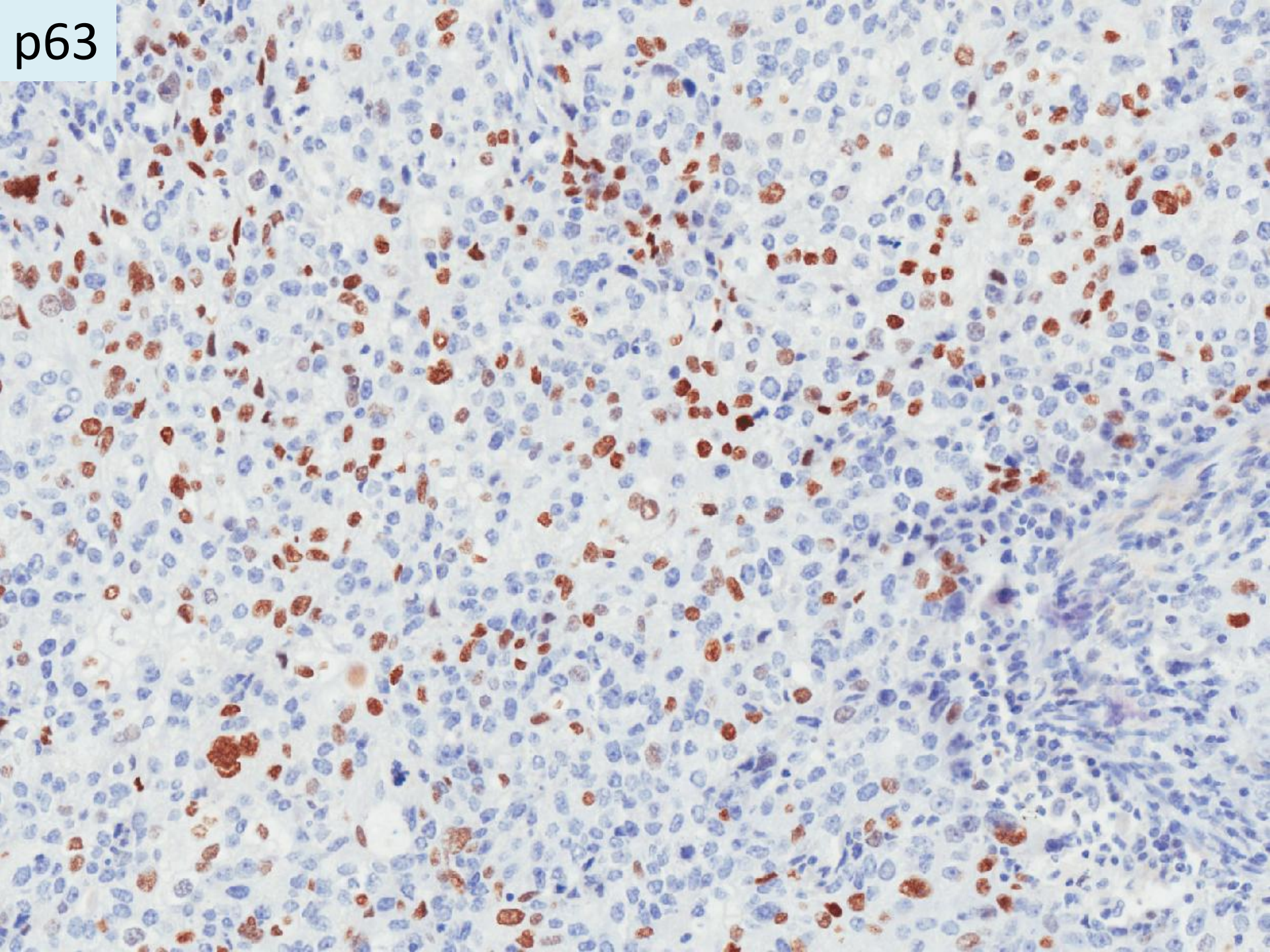
34βE12



p63



p63



Positive immunohistochemical staining
for 34 β E12 and p63 indicates a basal
phenotype

Pleomorphic carcinoma

- Rare variant of high-grade invasive carcinoma, no special type.
- Pleomorphic and bizarre, sometimes multinucleated tumour giant cells comprising > 50% of tumour cells in a background of adenocarcinoma with or without spindle cell and squamous metaplasia.
 - Tumour giant cells usually form > 75% of tumour cell population.
 - High mitotic rate, central necrosis.
 - Accompanying high grade DCIS and lymphovascular invasion.
 - ER, PR usually negative.
 - *cerbB2* can be overexpressed.
 - Axillary lymph node metastases in 50% of patients.
 - Advanced disease, poor outcome.

Basal-like phenotype

- One subgroup of breast carcinoma based on hierarchical cluster analysis.
- Subgroups:
 - Basal-like (ER negative tumours expressing myoepithelial/basal genes such as keratin 5,14,17)
 - HER-2-like (ER negative tumours overexpressing HER2 gene)
 - Luminal A & B (ER positive tumours)
 - Normal epithelial-like tumours
 - Claudin-low tumours (with stem cell features)

Breast carcinoma with basal-like phenotype

- Carcinoma with medullary features:
 - Medullary carcinoma, atypical medullary carcinoma, invasive carcinoma of no special type.
 - Histological features:
 - Circumscribed or pushing border.
 - Syncytial growth pattern.
 - Cells with high-grade nuclei.
 - Prominent lymphoid infiltration.
- Metaplastic carcinoma.

- Relationship of basal and triple negative phenotype with BRCA1 and BRCA2 associated breast cancers.
- Carcinomas with medullary features are over-represented in patients with germ-line mutations in the BRCA1 gene.
- Features predictive of the BRCA1 phenotype:
 - Pushing margins, lymphocytic infiltrate, high mitotic counts.