#### Case 17

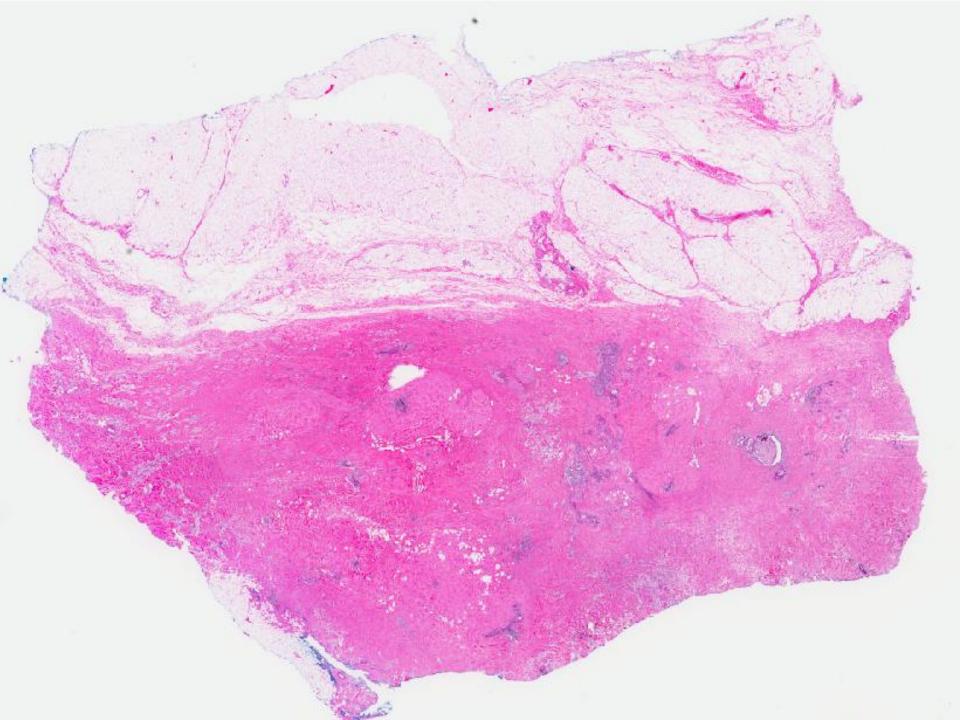
49 year old Chinese lady.

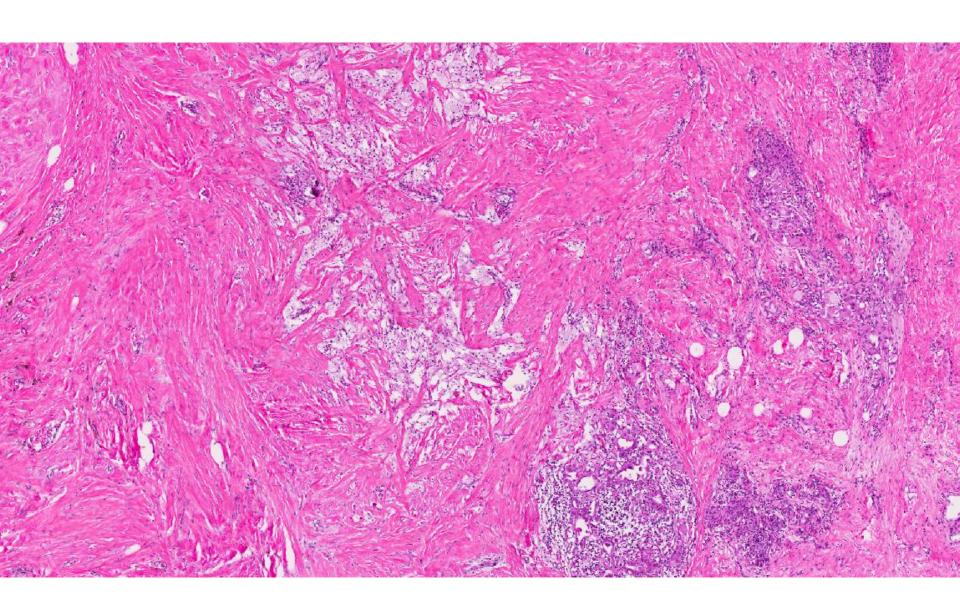
Diagnosed with invasive carcinoma with micropapillary features on core biopsy of a right breast mass.

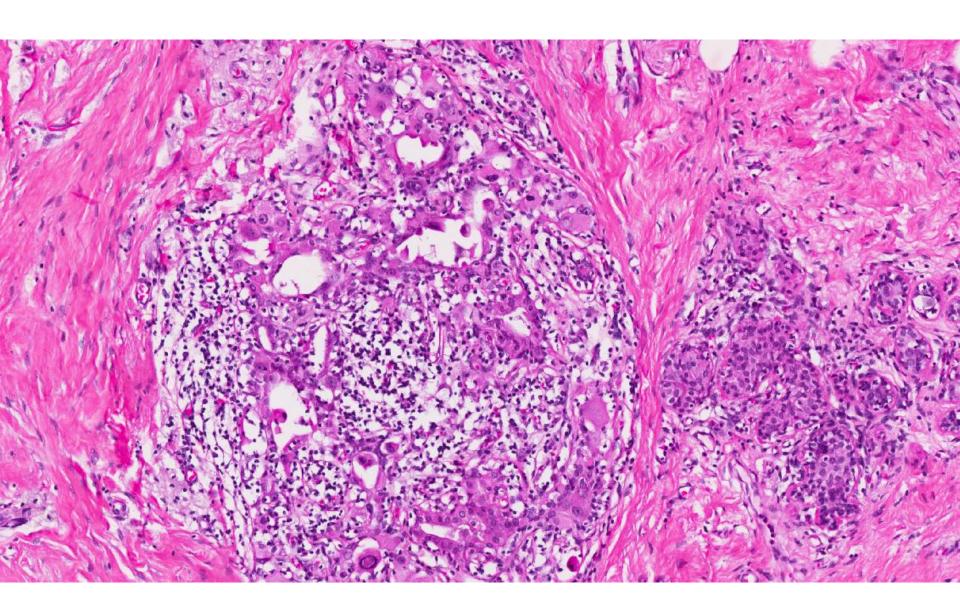
ER positive, PR positive, cerbB2 borderline (2+).

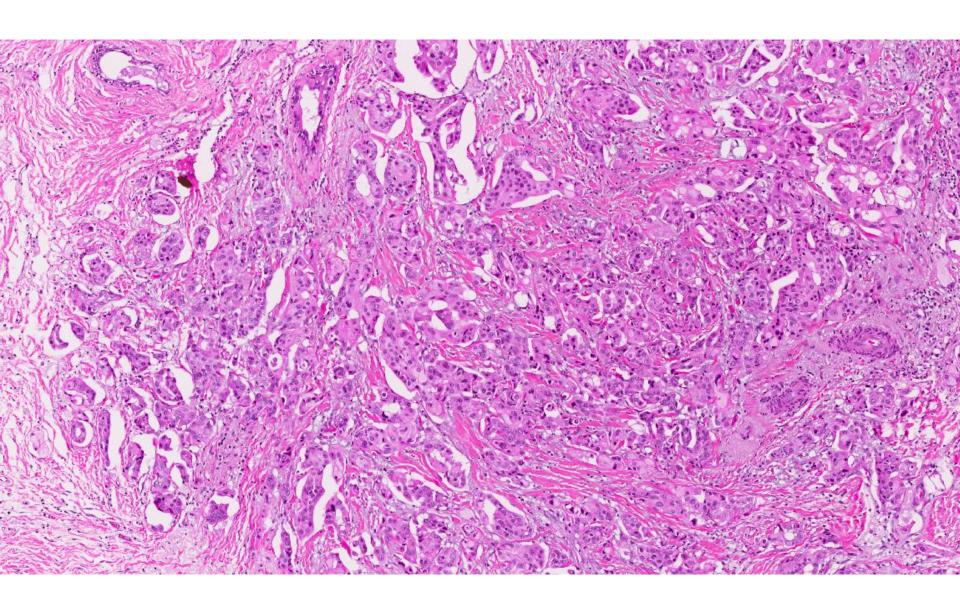
She underwent neoadjuvant chemotherapy, with subsequent right mastectomy and axillary clearance.

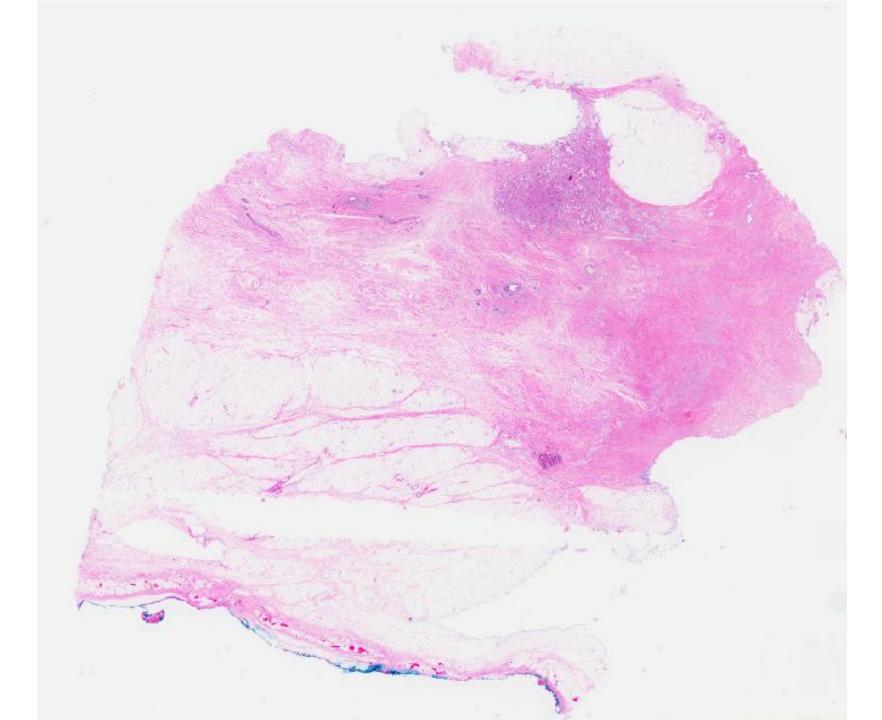
Sections are from the right mastectomy specimen.

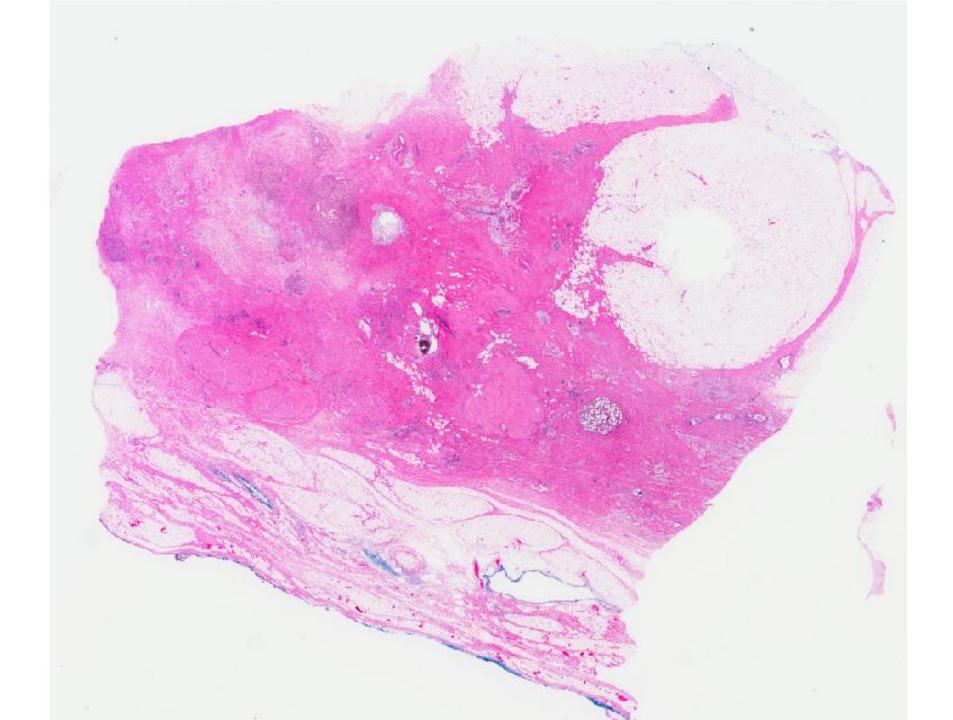


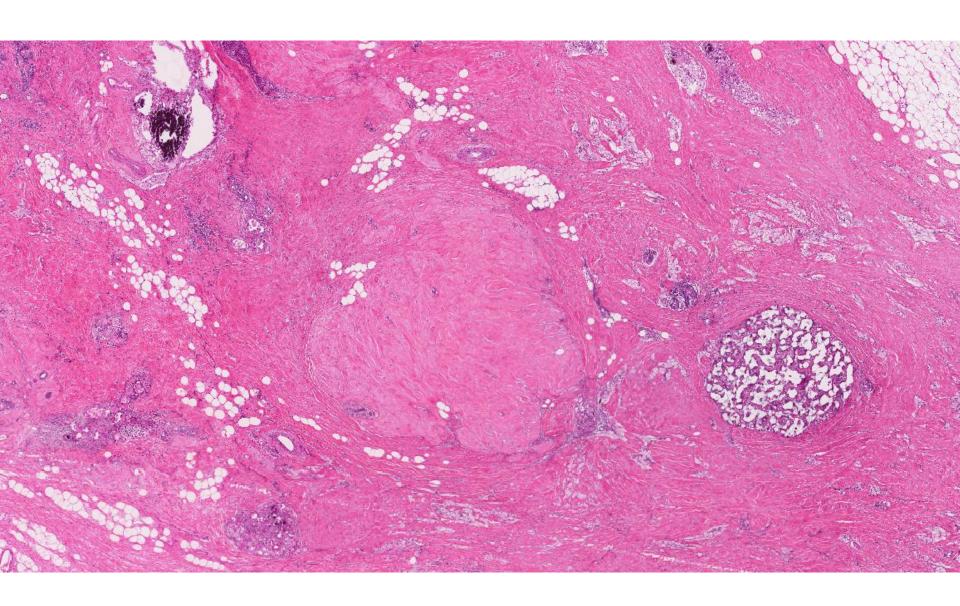


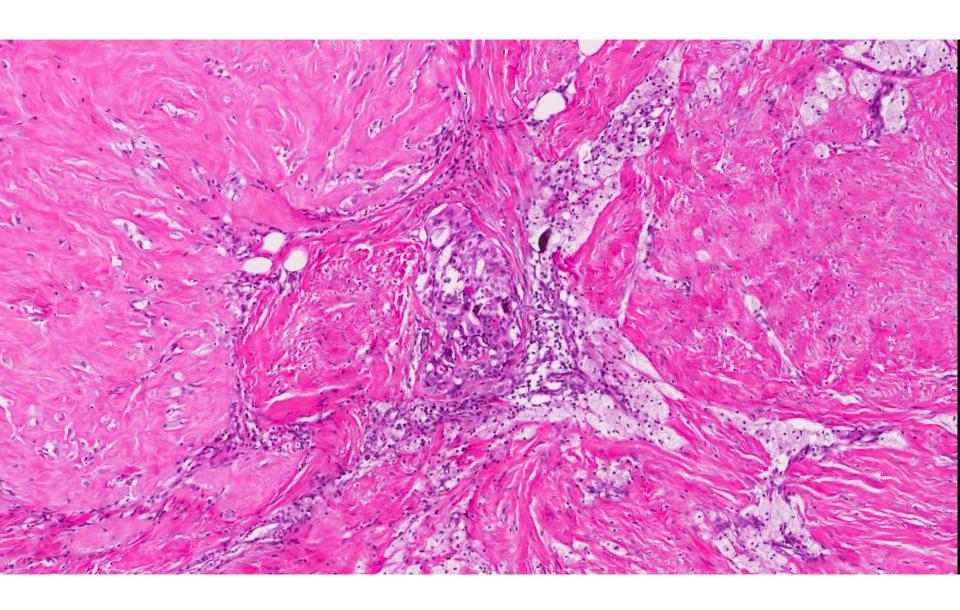


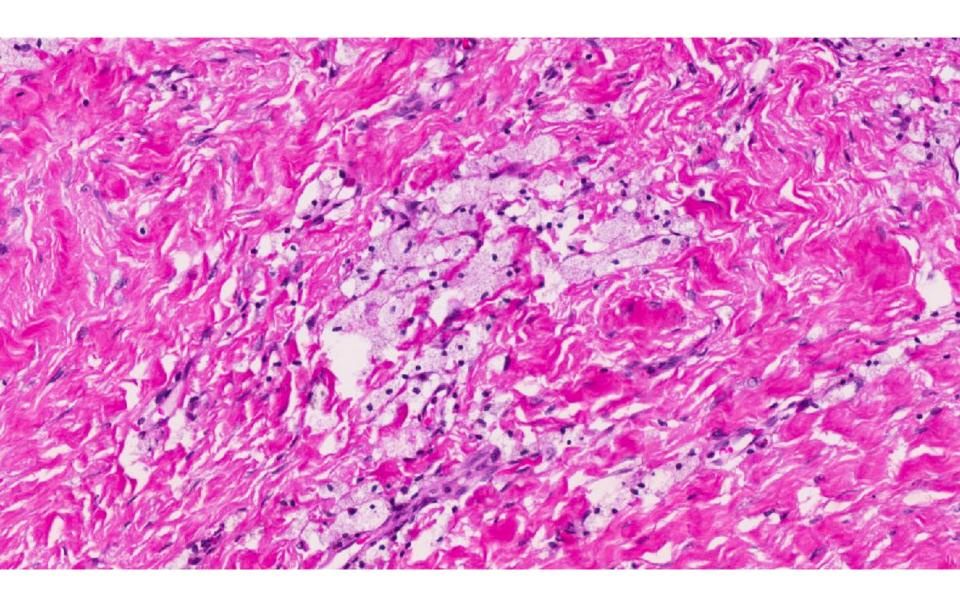


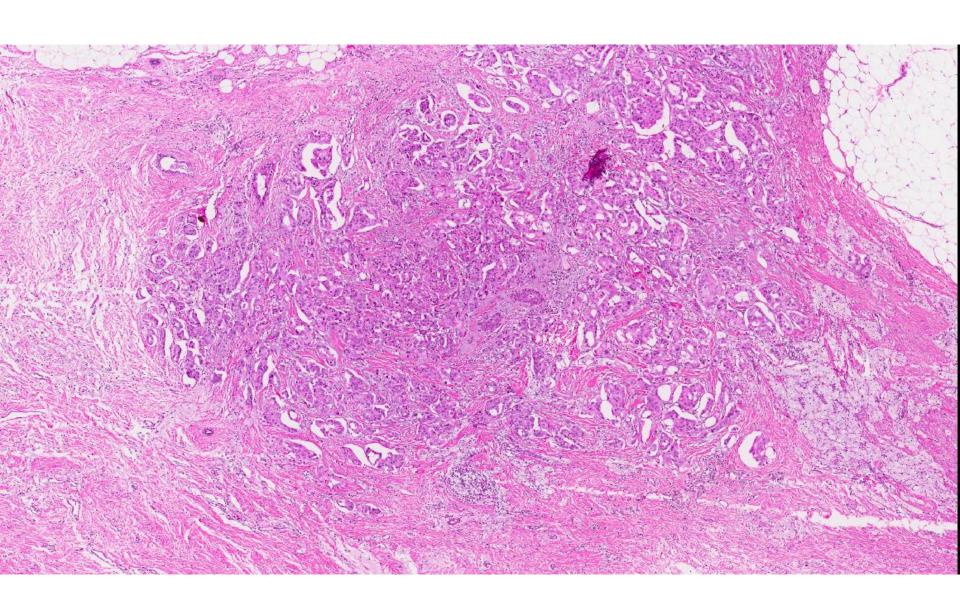


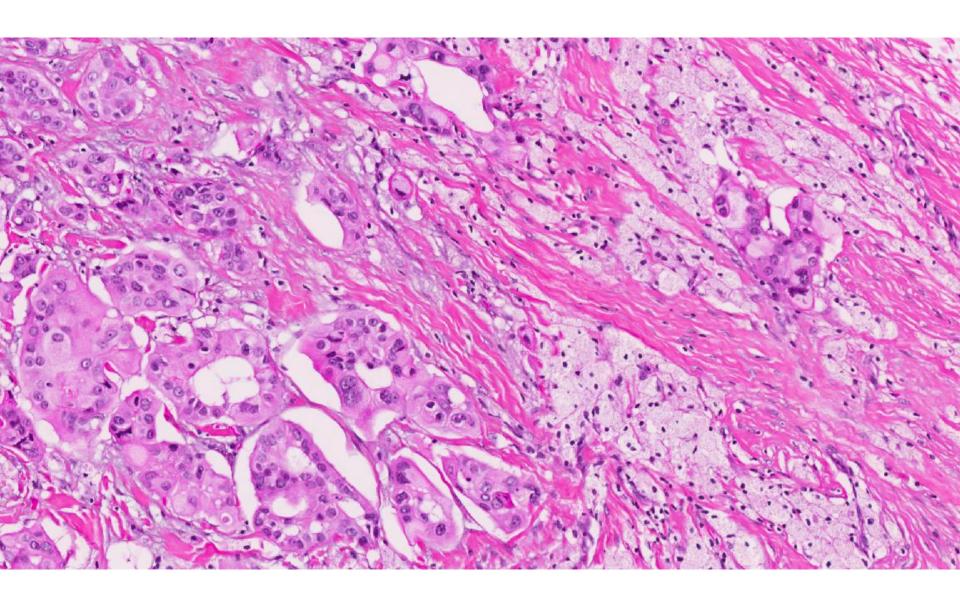


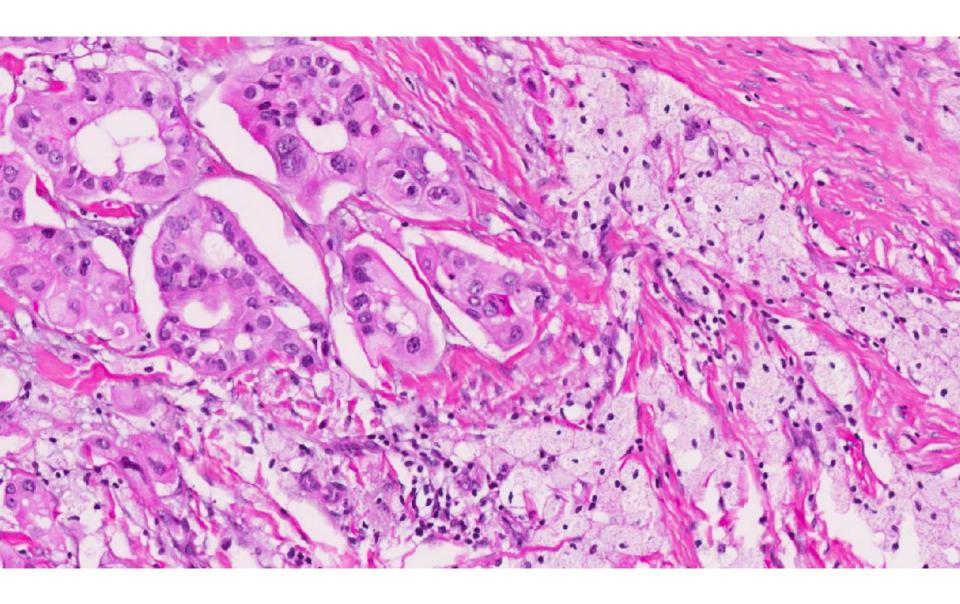


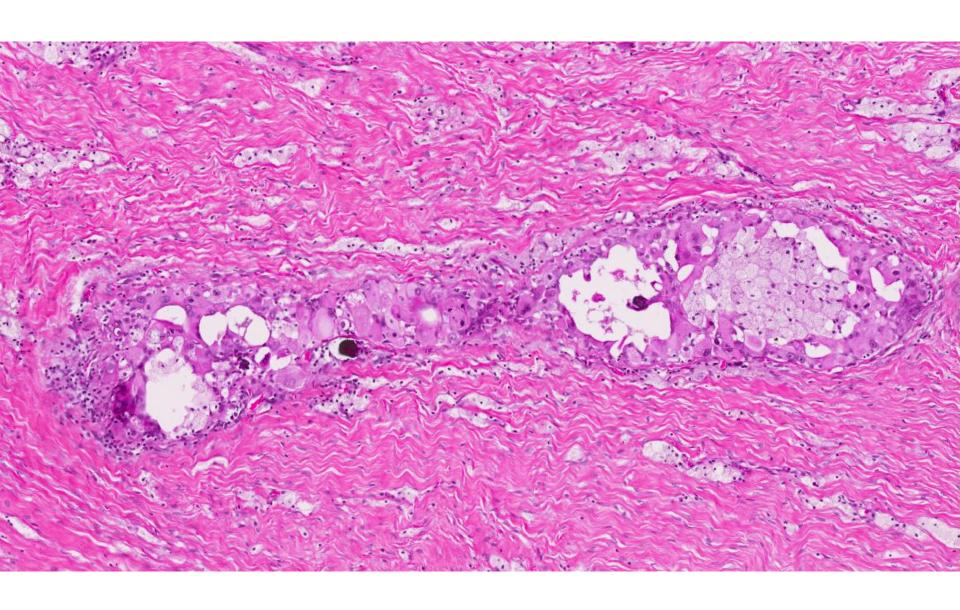


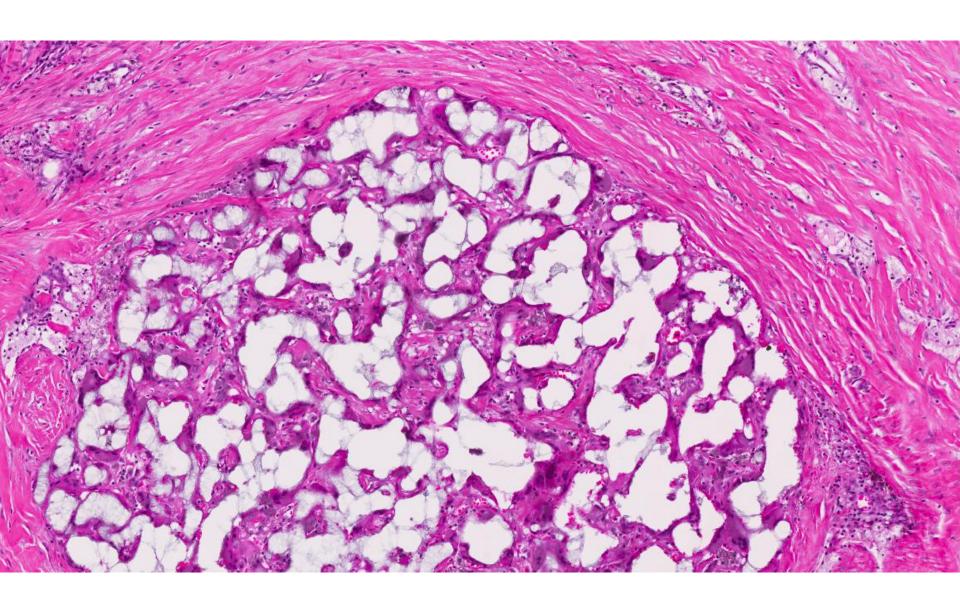




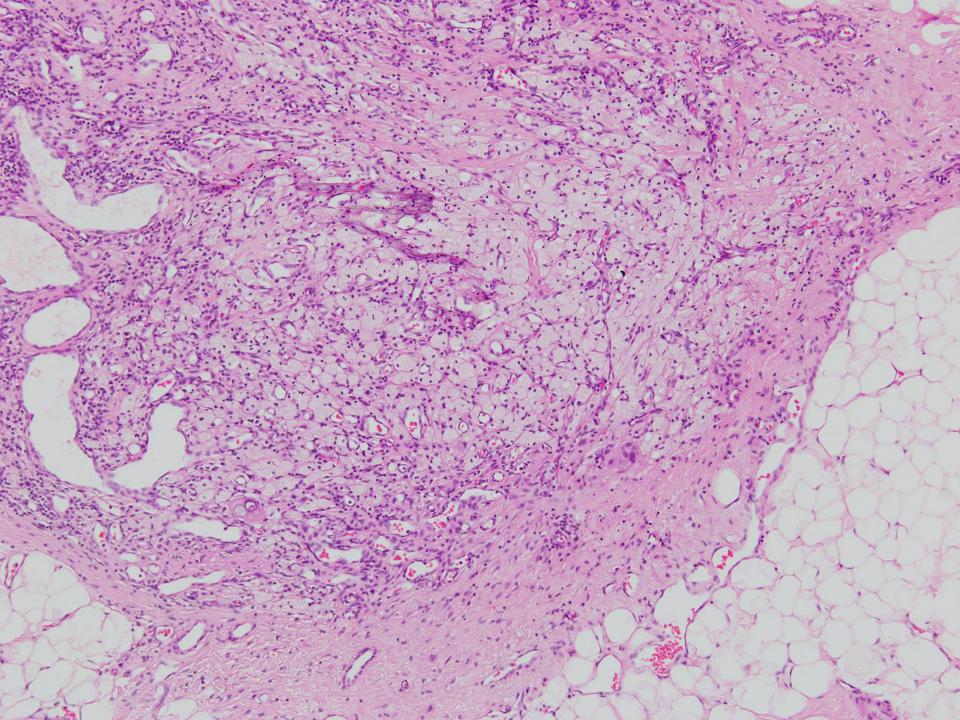


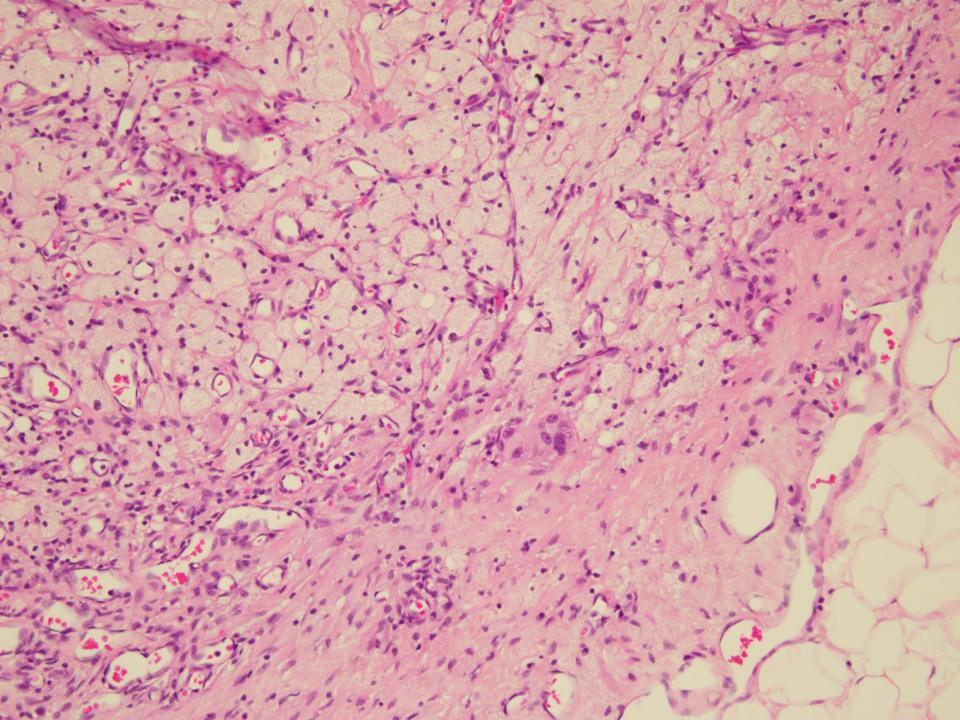


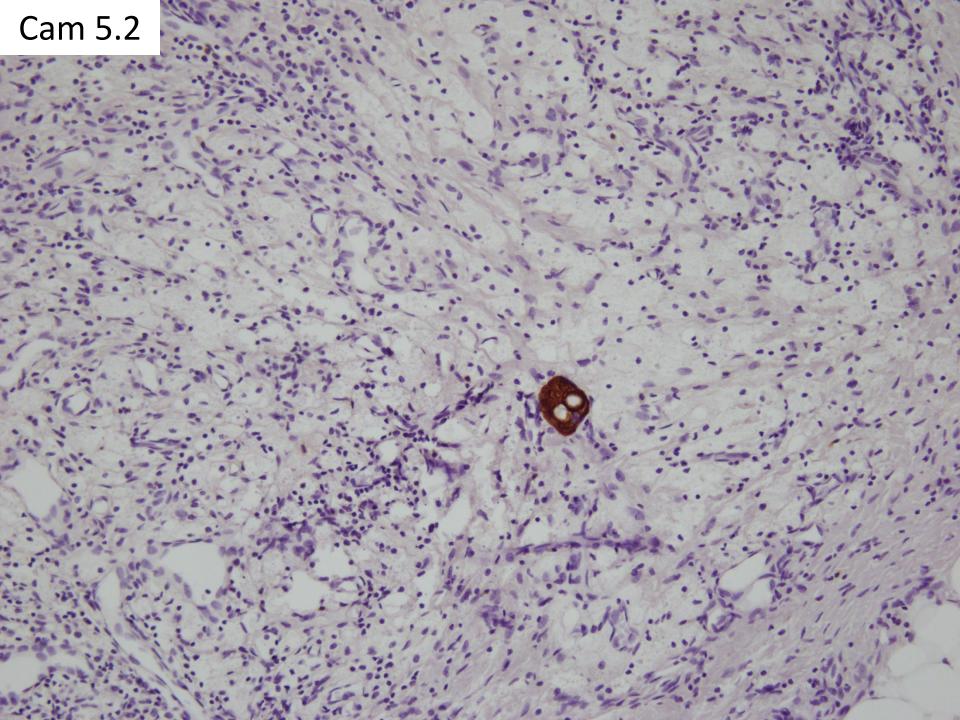


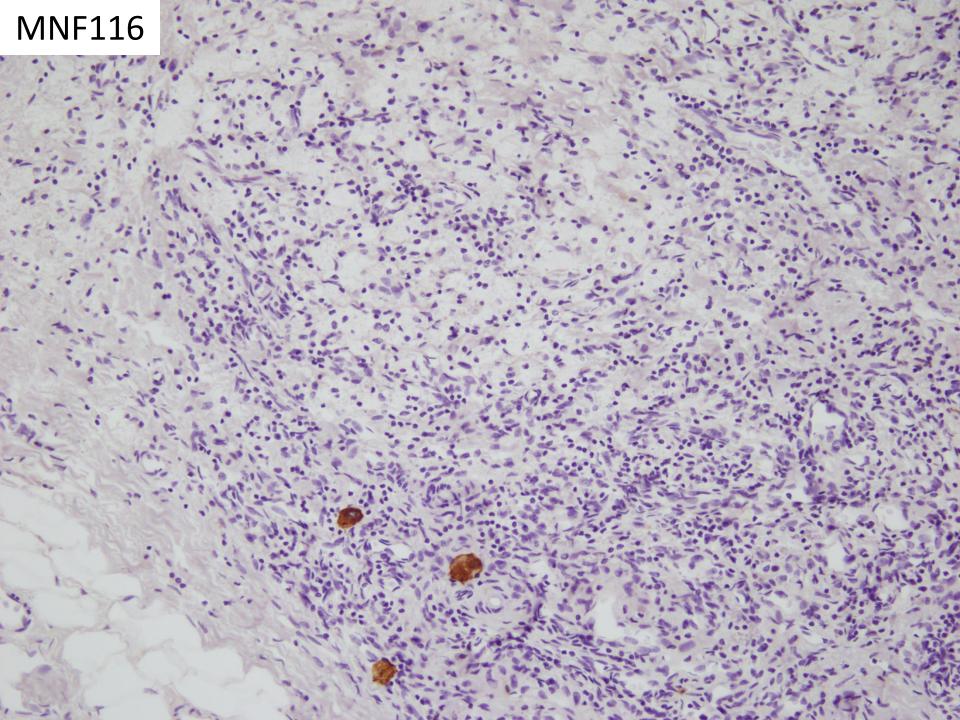












### Diagnosis

Residual invasive ductal carcinoma, 18mm 3 out of 12 axillary lymph nodes with isolated tumour cells

# Lymph nodes

- Pre-neoadjuvant treatment evaluation of axillary lymph nodes is necessary in order to derive maximal information.
- Clinically or radiologically enlarged nodes can be sampled by FNAC or core needle biopsy.
- In the absence of metastasis on preoperative assessment, sentinel lymph node procedure can be pursued.

# Lymph nodes – assessment post neoadjuvant therapy

- Fibrosis and large collections of macrophages in the lymph node represent response of nodal metastatic disease to neoadjuvant therapy.
- Metastases can also completely resolve without any histological evidence of prior disease.
- Without pretreatment evaluation, the difference between negative nodes before treatment and nodal pCR cannot be made with certainty.
- Response in the nodes has more prognostic importance than does response in the breast.
- Small metastases after treatment, including isolated tumour cells, represent incomplete pathologic response.
- Isolated tumour cells on H&E should be considered node positive in the context of neoadjuvant therapy.

### Post-therapy changes in normal tissues

- Normal breast epithelium may show atypia, with enlarged pleomorphic nuclei.
- May be present some distance from the site of the invasive tumour, and seen throughout the specimen rather than in the immediate vicinity of the tumour.
- Mimics in situ disease.

# Post-radiation changes

 Radiation can cause dense and hypocellular stroma, lobular sclerosis, radiation fibroblasts, bizarre stromal cells, atypical vascular lesions and angiosarcoma.