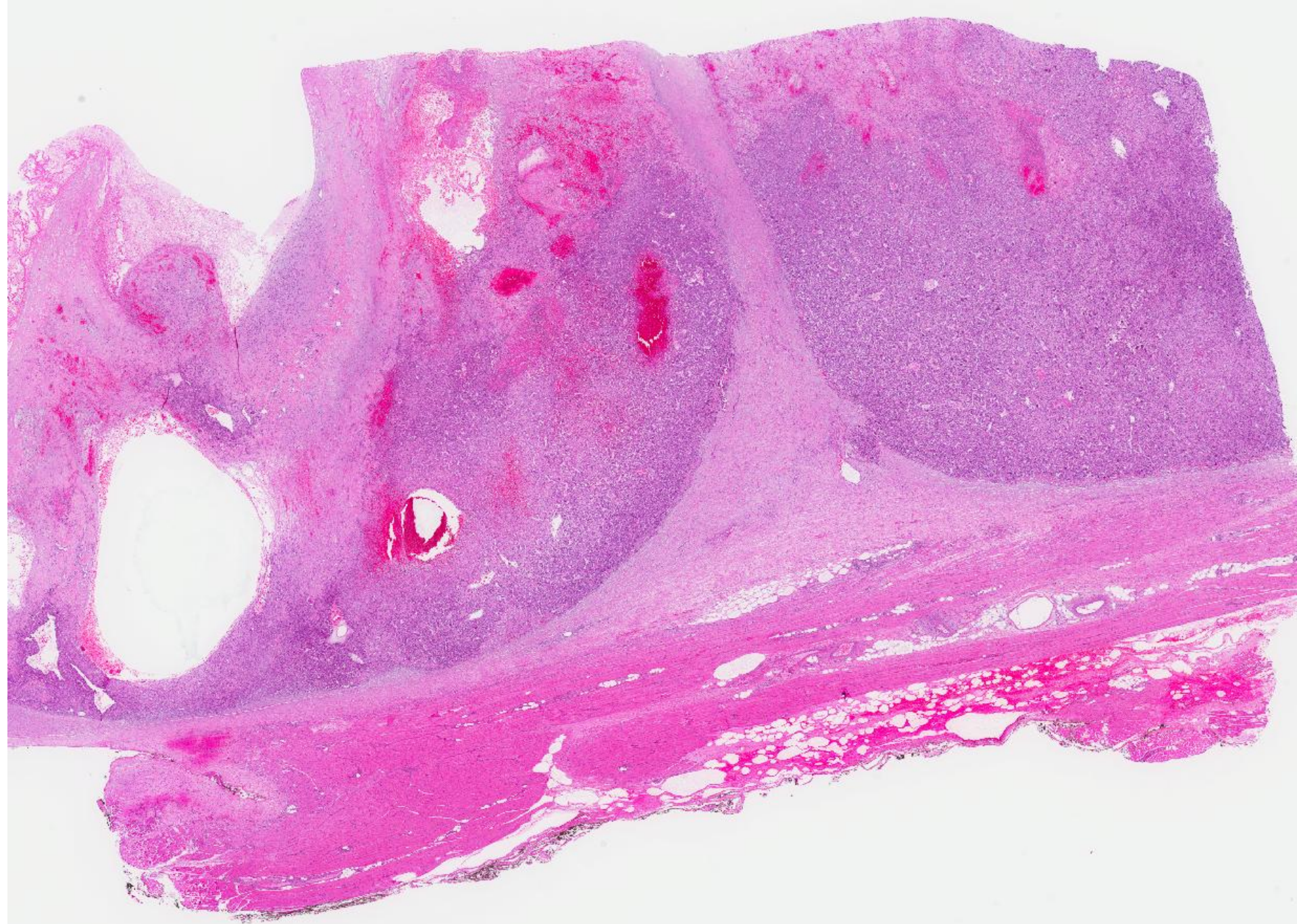
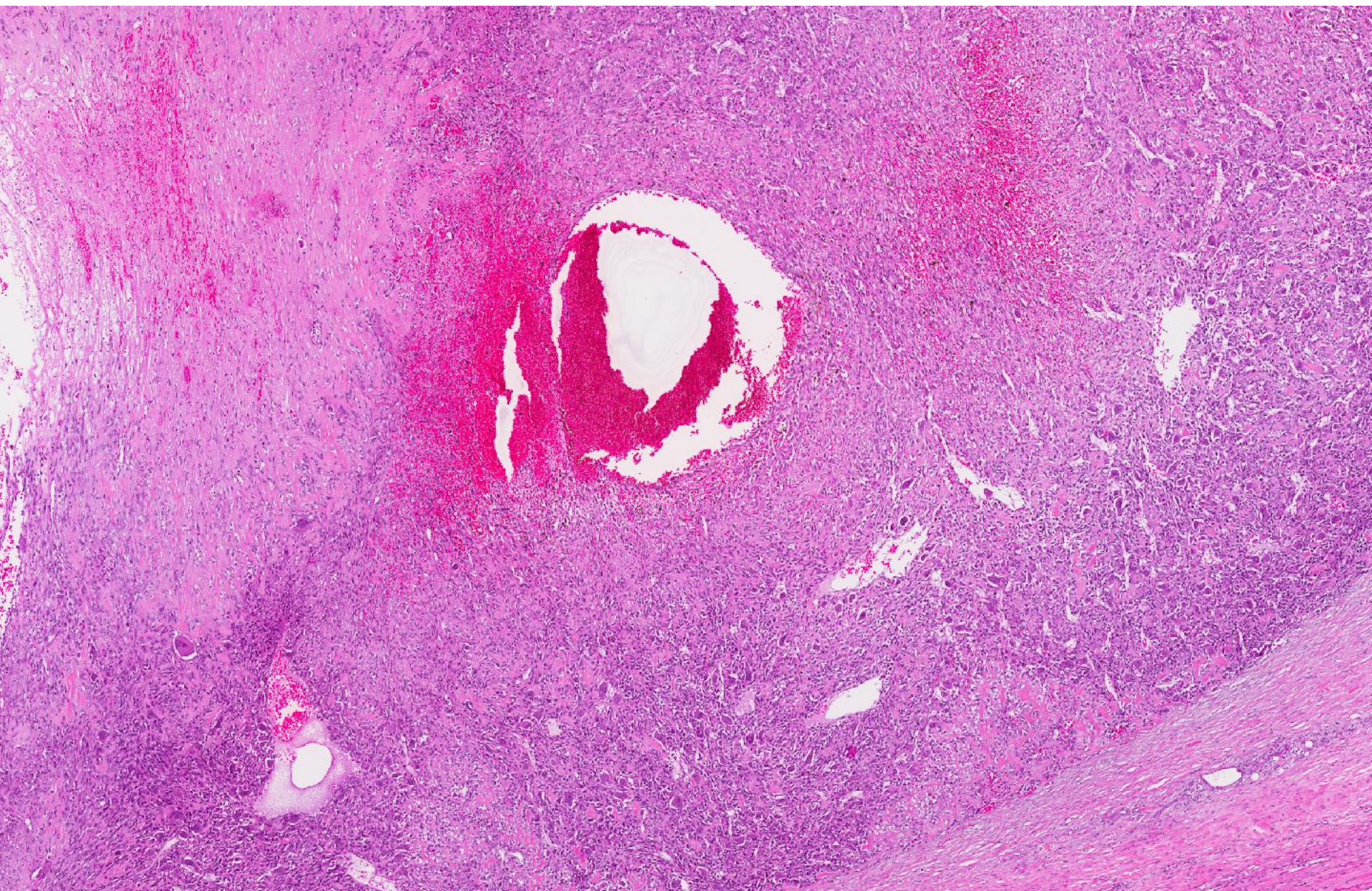


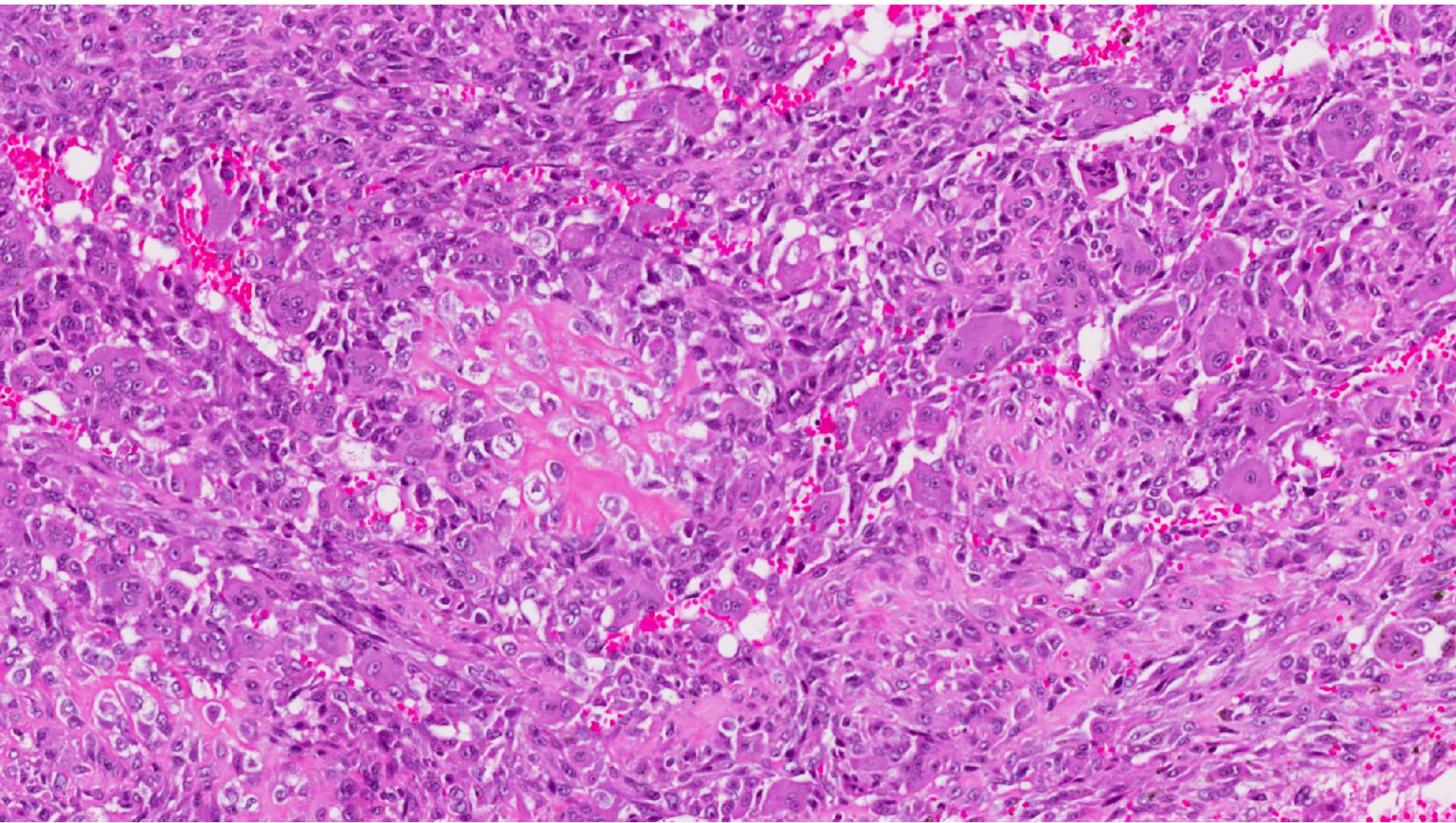
Case 8

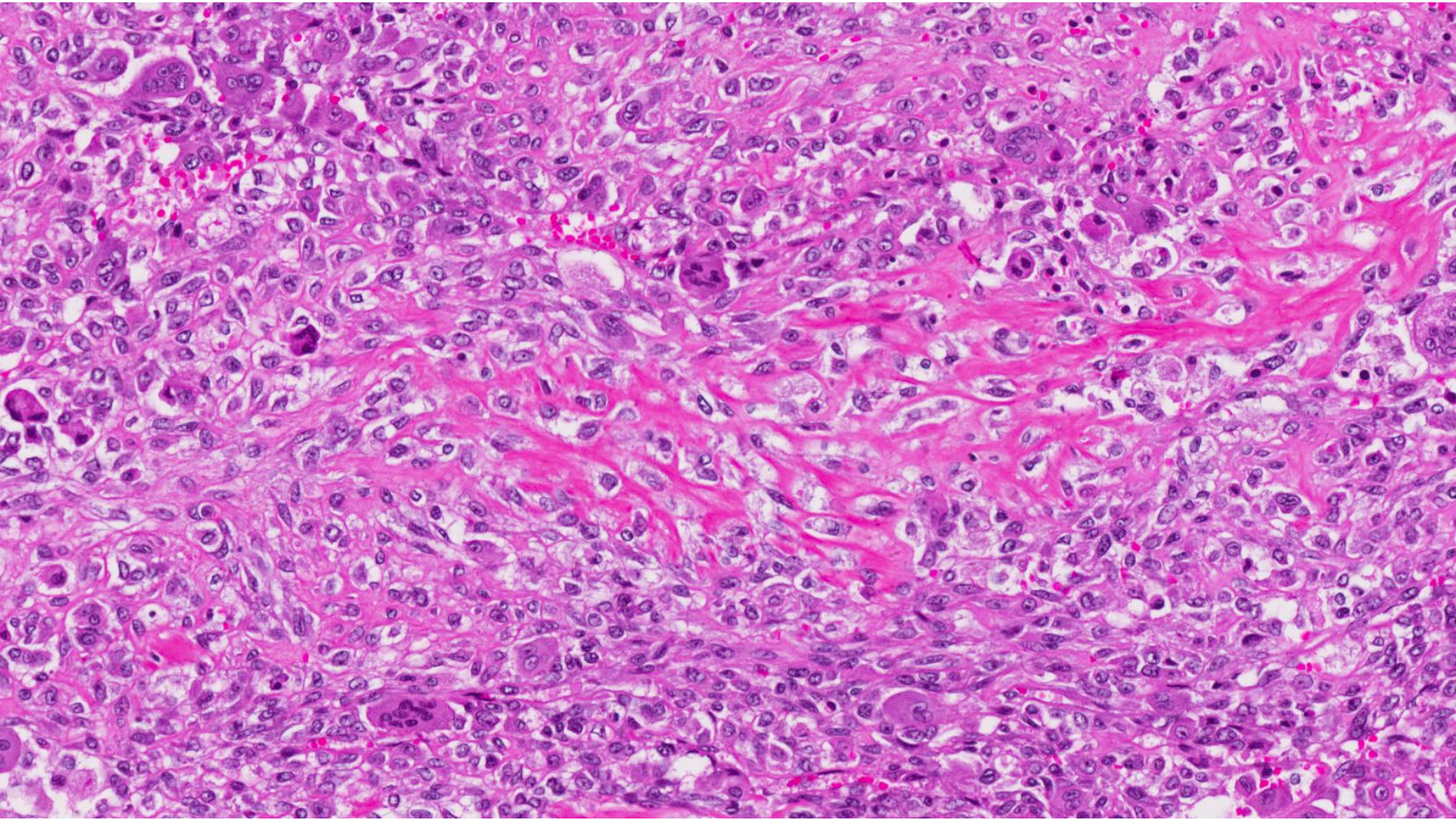
53 year old Chinese lady underwent mastectomy for a 16 cm mass in the left breast.

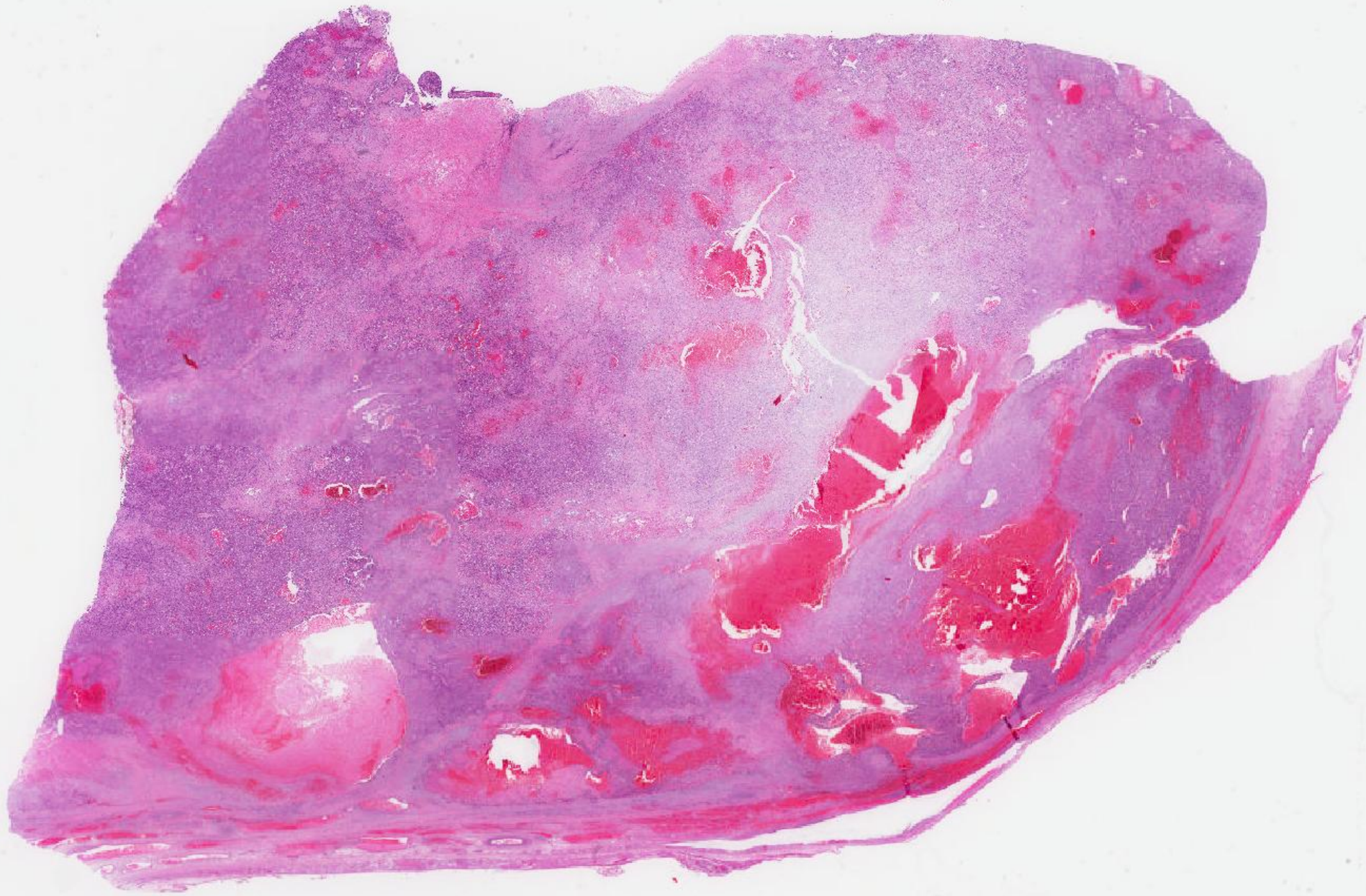


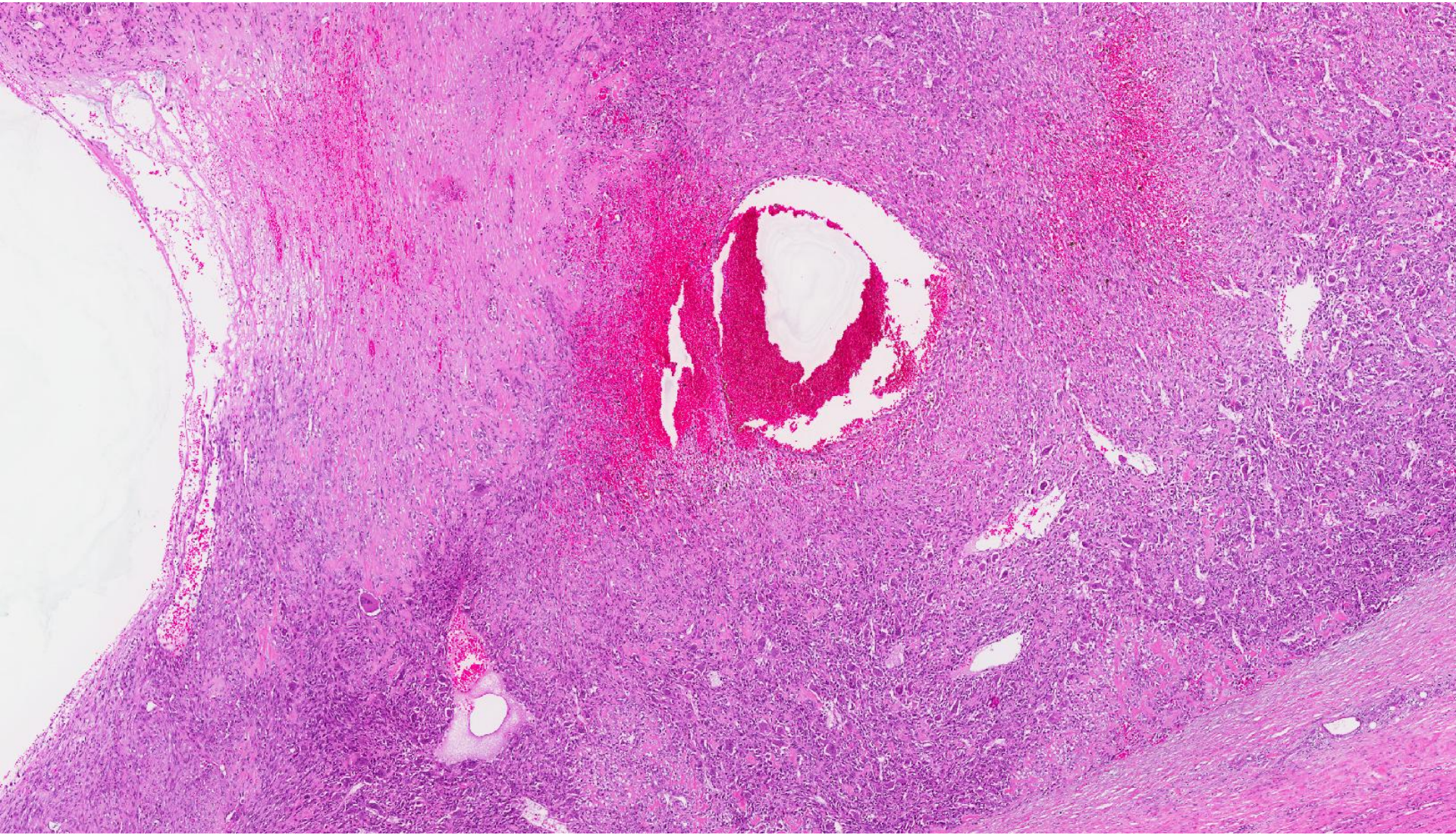


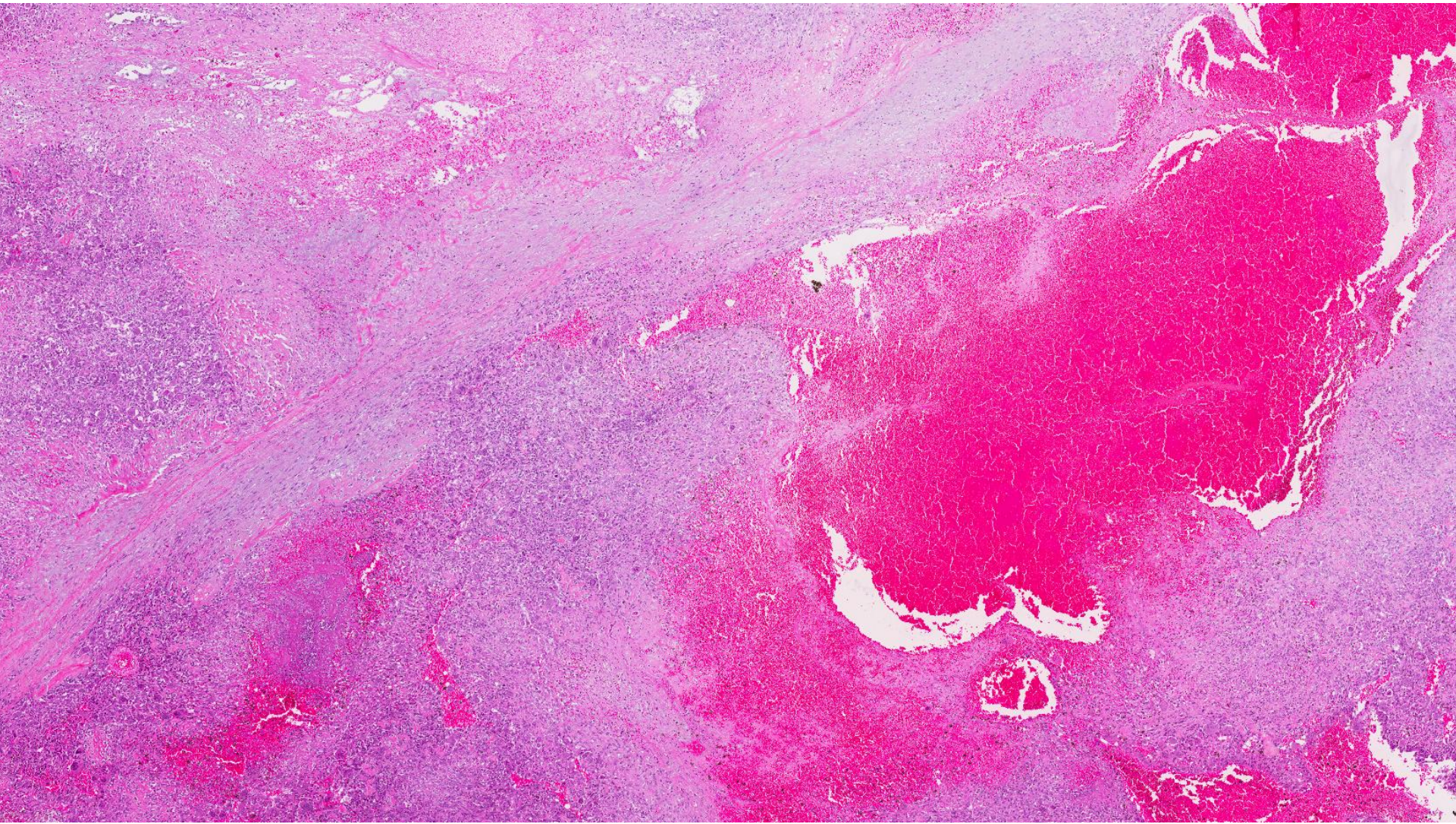


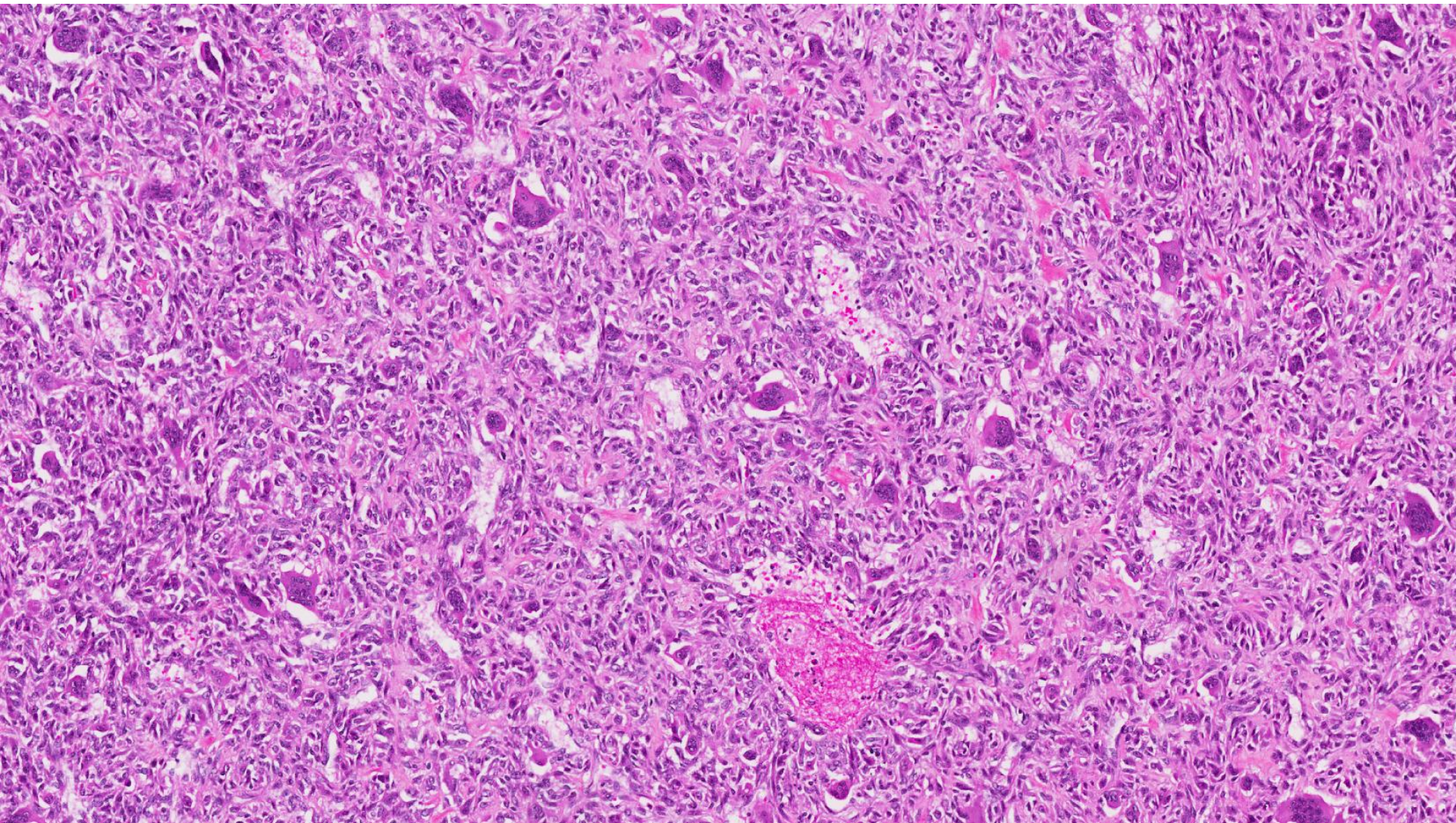


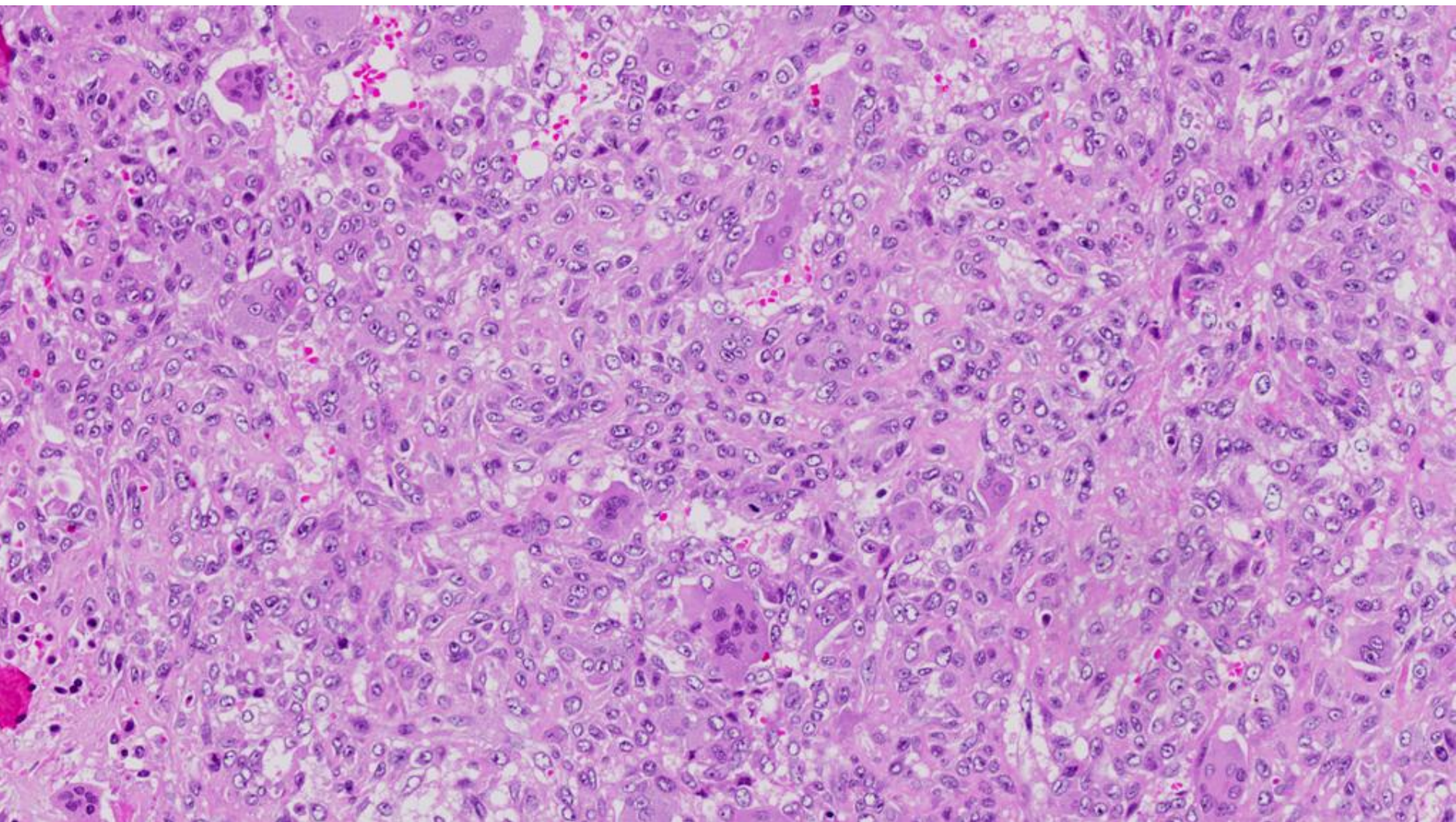


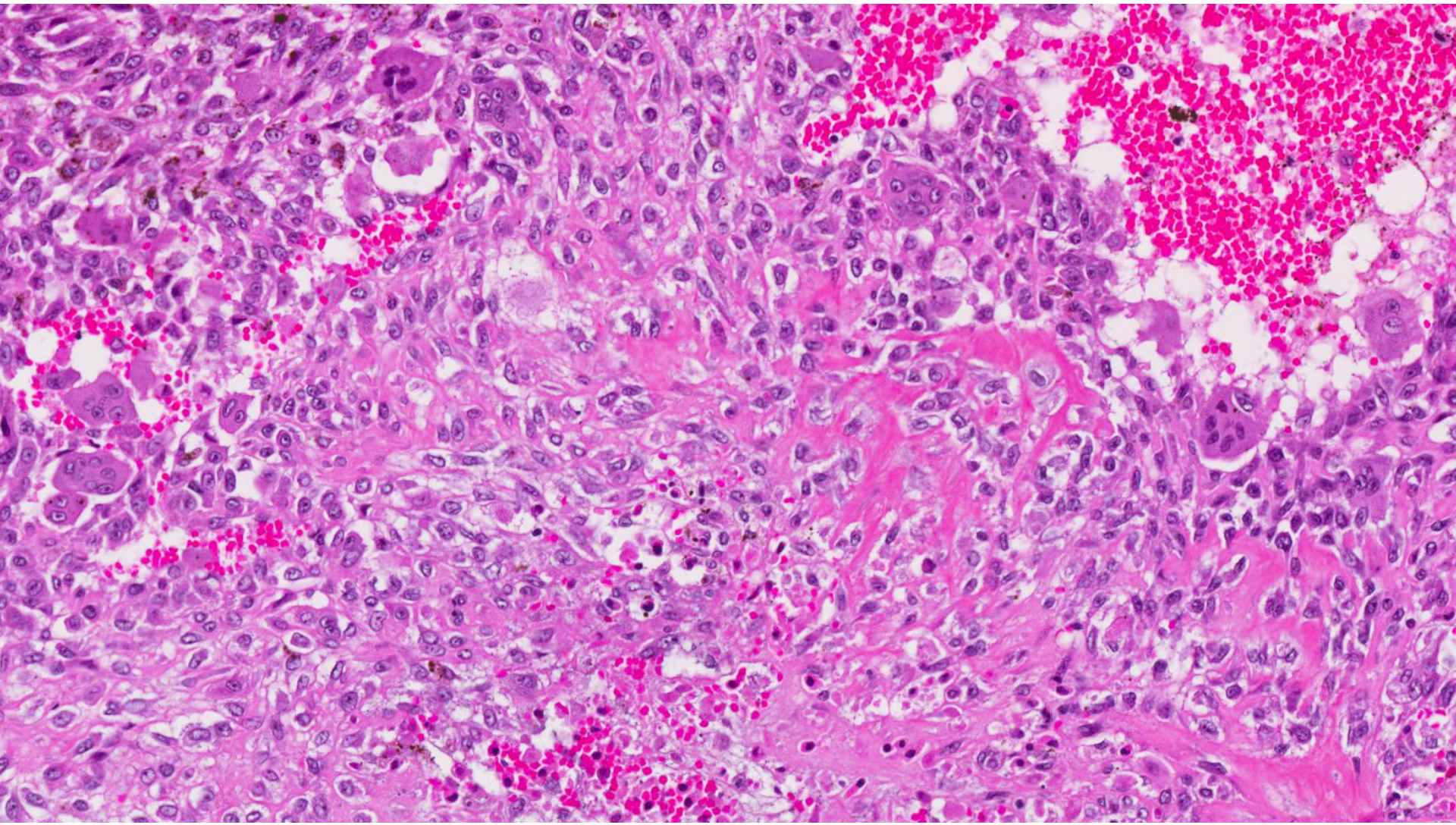


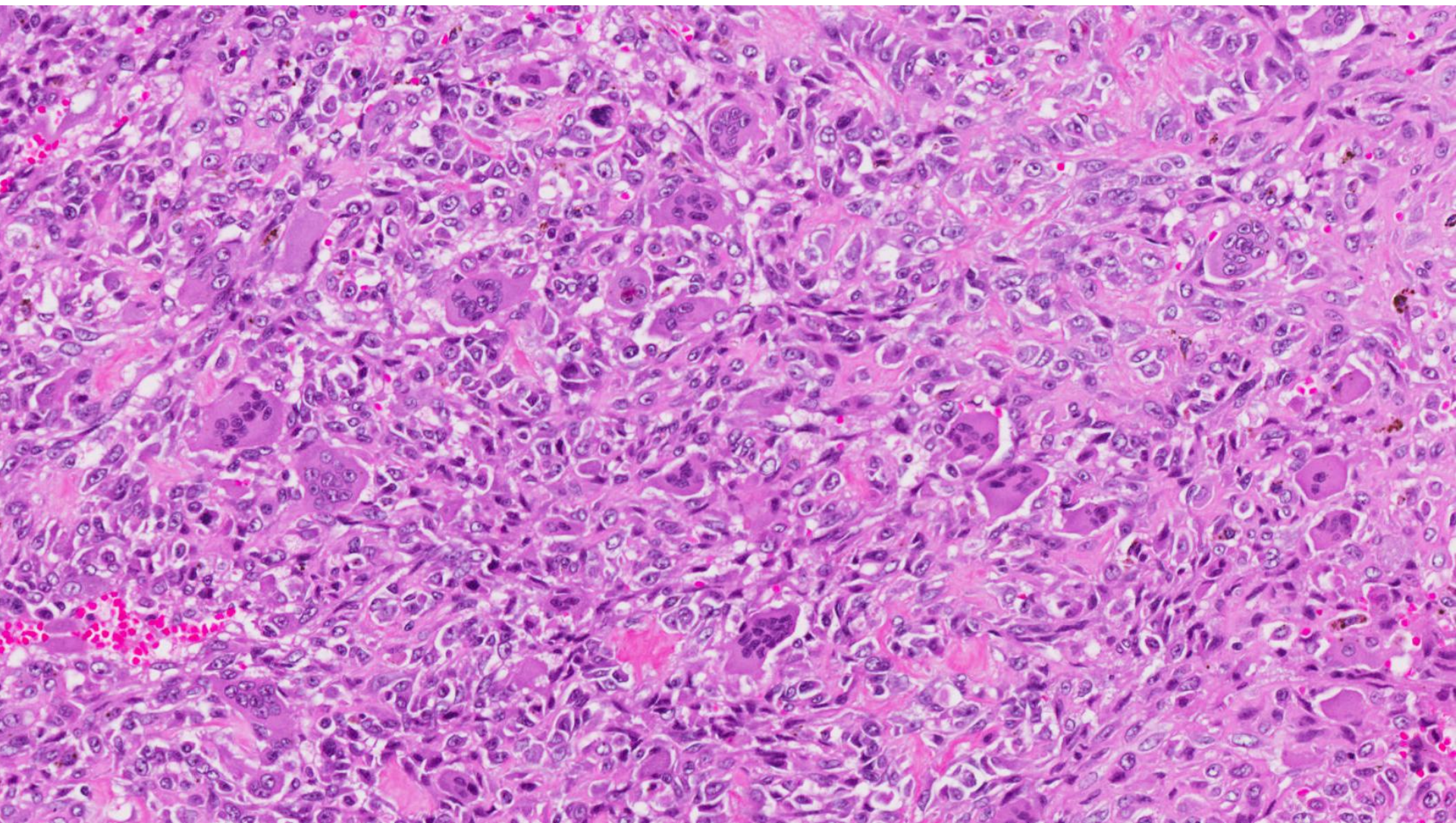












Diagnosis

Osteosarcoma

(all keratins, p63, negative on immunohistochemistry)

Osteosarcoma of breast

- A malignant tumour of soft tissue elaborating osteoid or bone in the absence of any other line of differentiation, such as epithelial, fibroepithelial or nerve sheath.
- Accounts for 12% of all mammary sarcomas.
- Must be distinguished from heterologous osteosarcomatous differentiation in malignant phyllodes tumour or metaplastic carcinoma – extensive sampling is needed.
- Rule out metastasis from skeletal osteosarcoma.
- Primary breast osteosarcoma affects women aged 27-89 years, median 64.5 years.
- Some cases are related to prior radiation.

Osteosarcoma of breast

- Usually presents as an enlarging solitary mass in the upper quadrant, associated with pain.
- Mammographically well circumscribed mass with focal to extensive coarse calcifications, mimicking radiological benignity.
- Wide size range from 1.4 cm to 13 cm, averaging 5 cm with sharp outlines.
- Firm to stony hard consistency, sometimes with cavitation and necrosis.
- Histologically infiltrative with pleomorphic spindle or ovoid cells accompanied by osteoid or bone, cartilage.
- May have variants: fibroblastic, osteoclast-rich, osteoblastic, telangiectatic.

Osteosarcoma of breast

- Complex genetic alterations.
- Highly aggressive, with overall 5 year survival rate of 38%.
- Metastases to lungs in absence of axillary lymph node involvement.
- Death within 2 years in women who develop metastases.
- Poor pathological prognostic features:
 - Large tumour size.
 - Prominent infiltrating margins.
 - Necrosis.
- Better prognosis in tumours with fibroblastic differentiation.