

Case 19

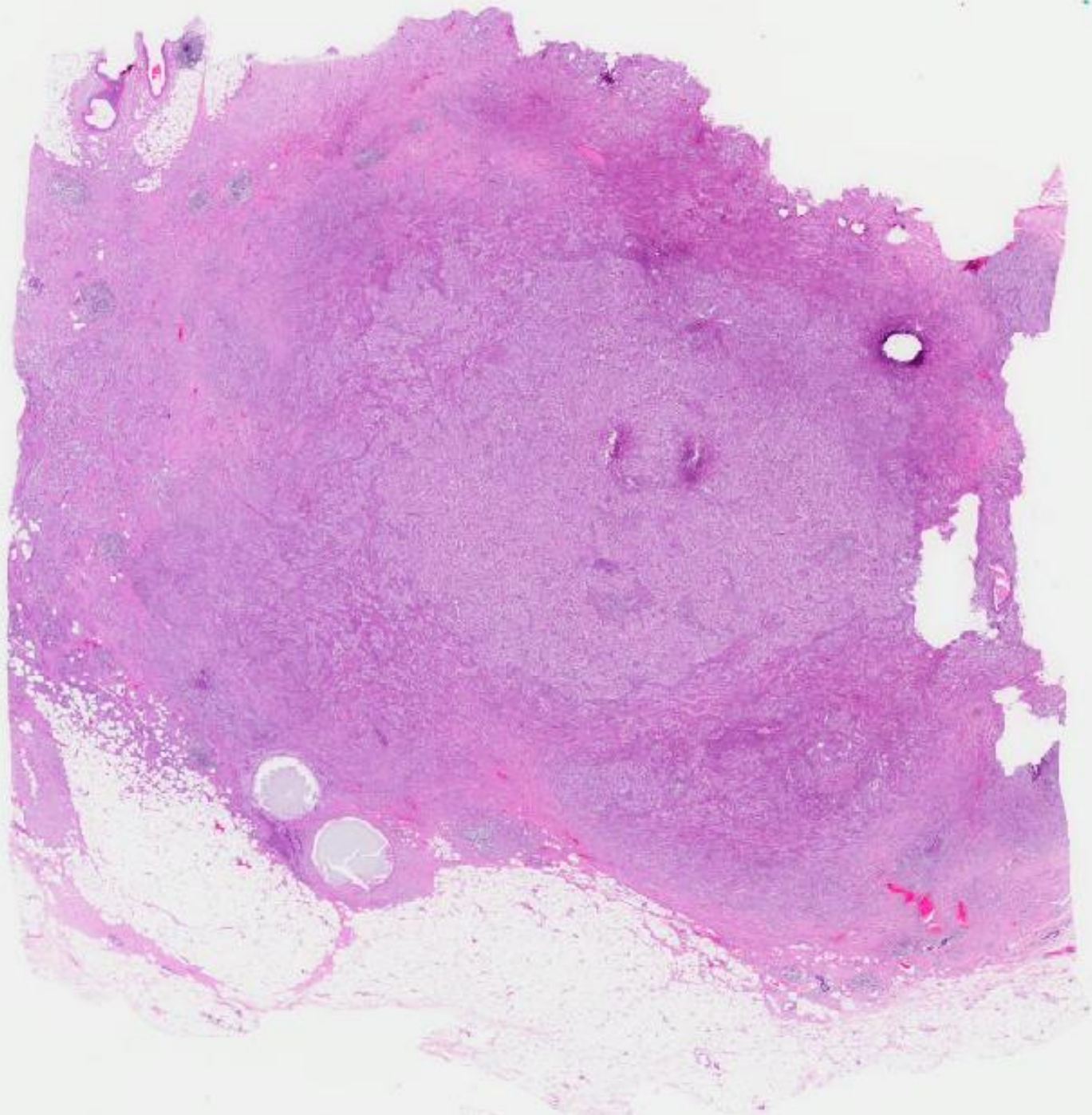
68 year old Malay lady.

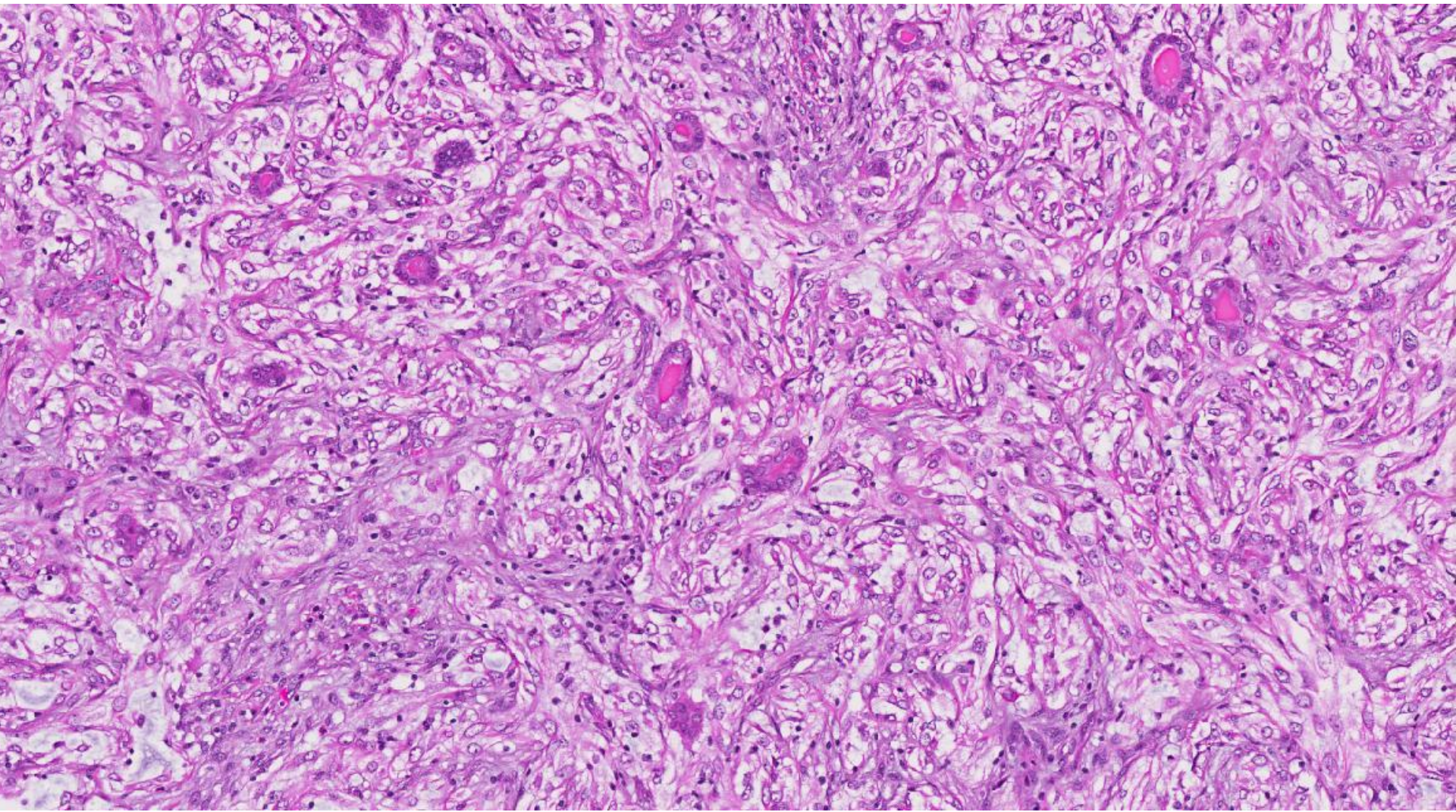
Presented with a left breast lump.

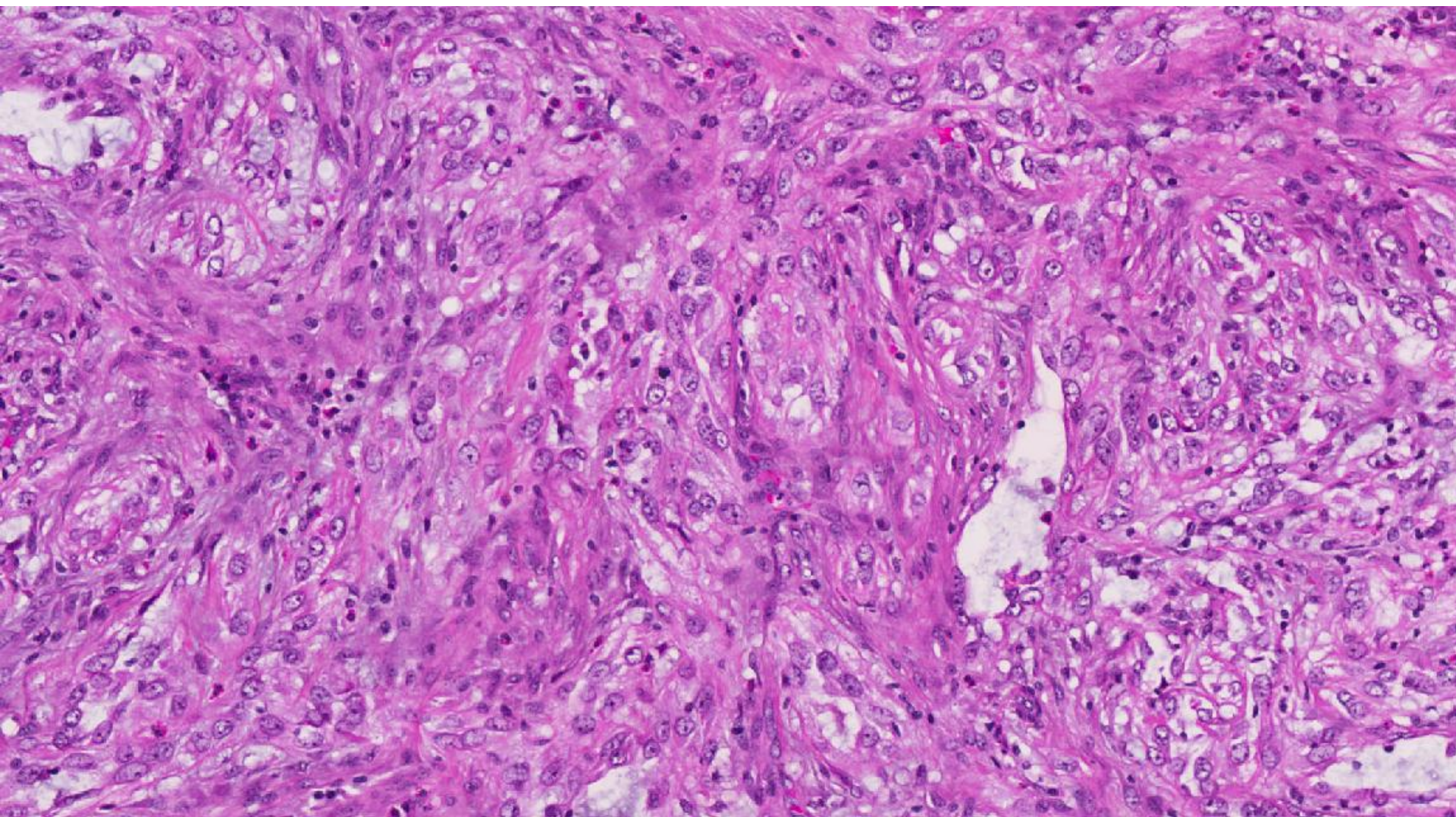
Intraoperative frozen section was performed,
followed by mastectomy with sentinel lymph node
sampling.

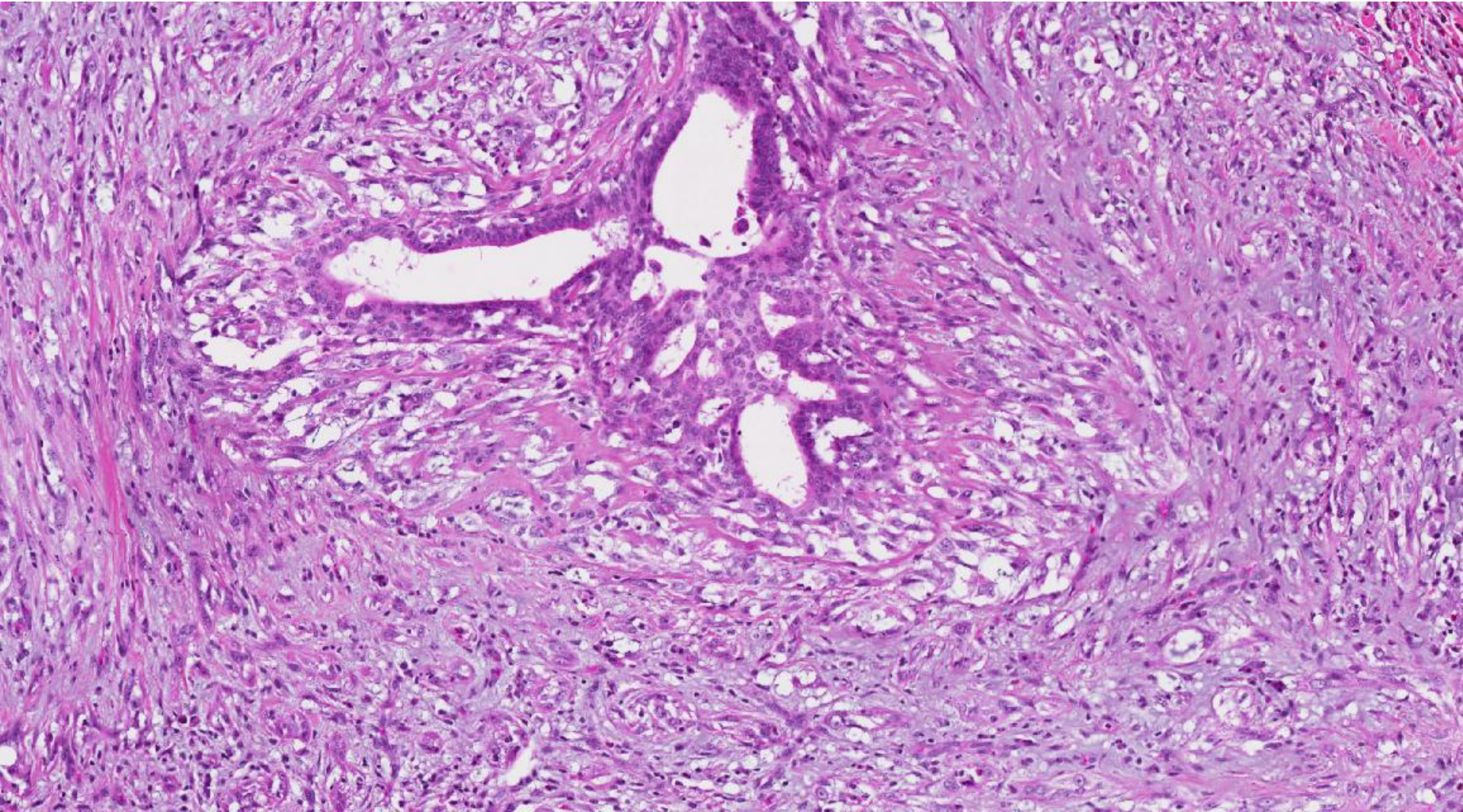
Macroscopic section of the tumour

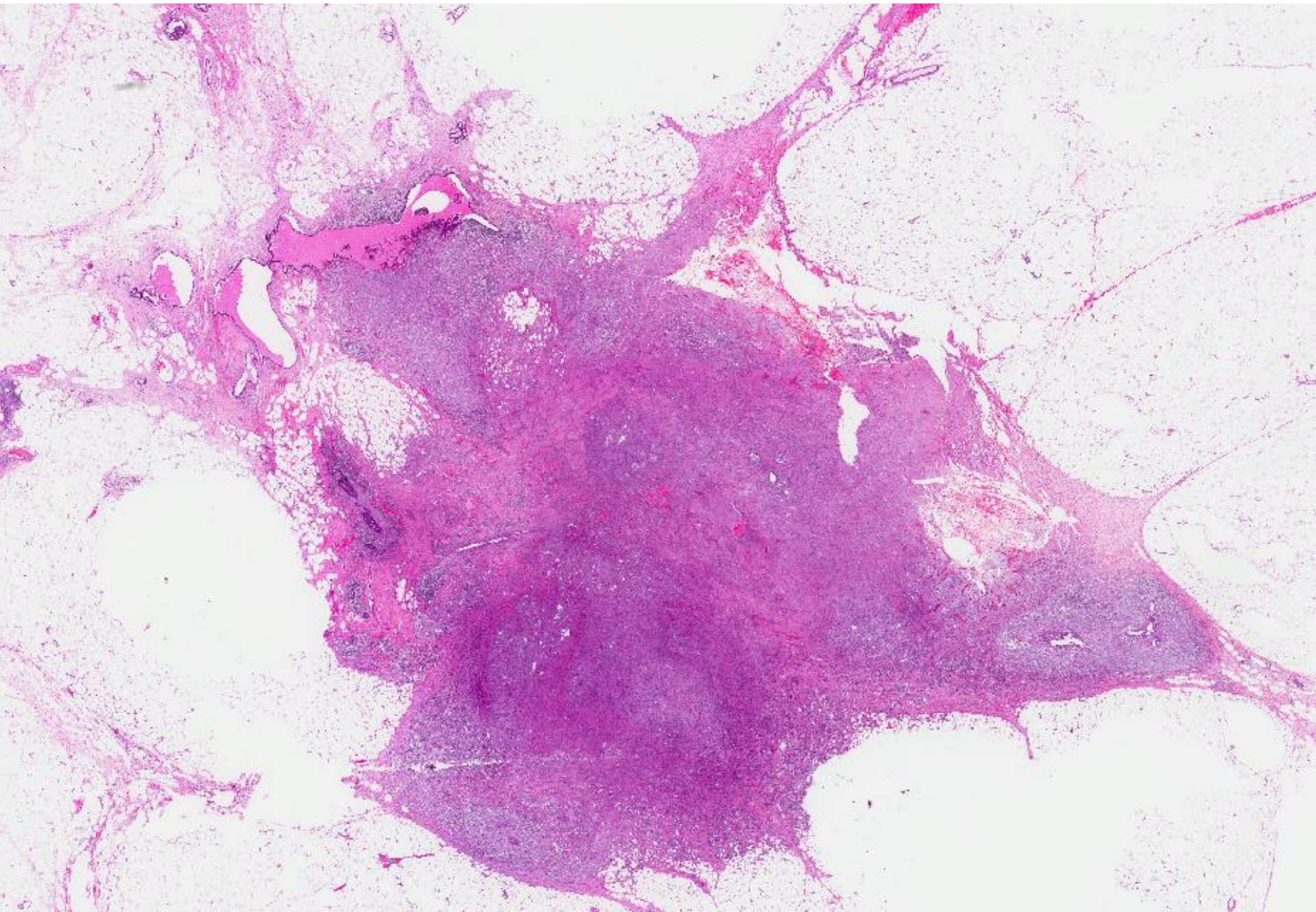


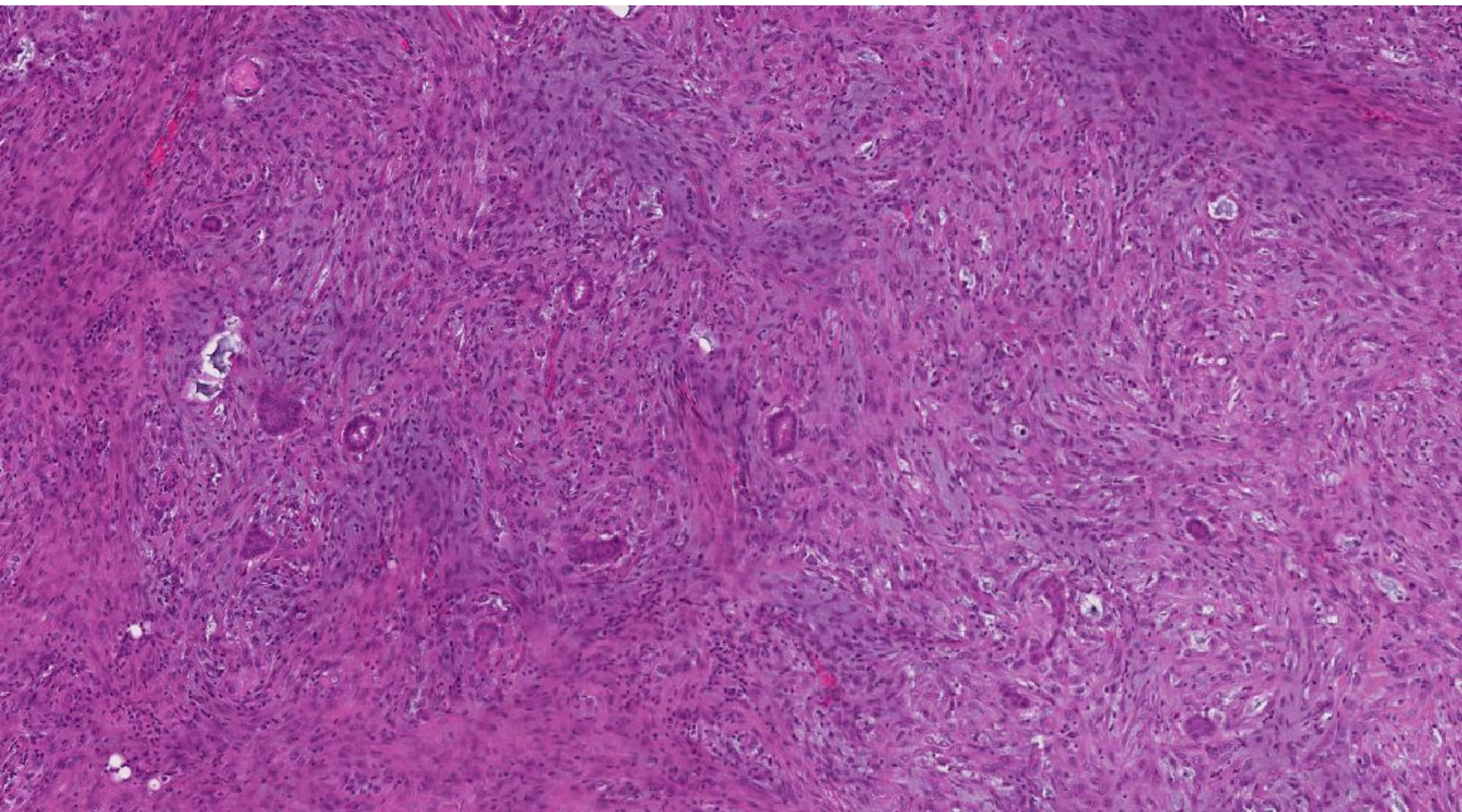


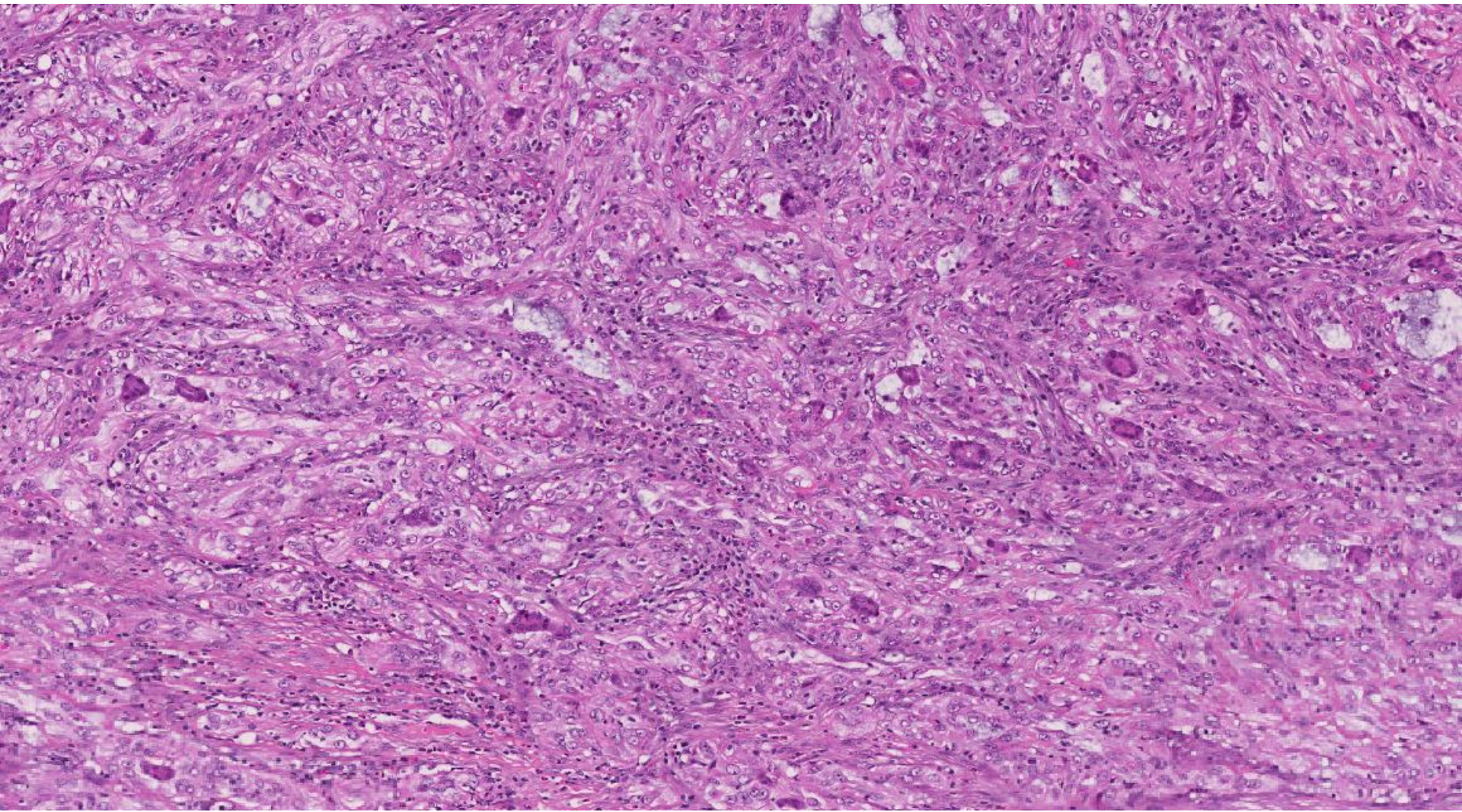


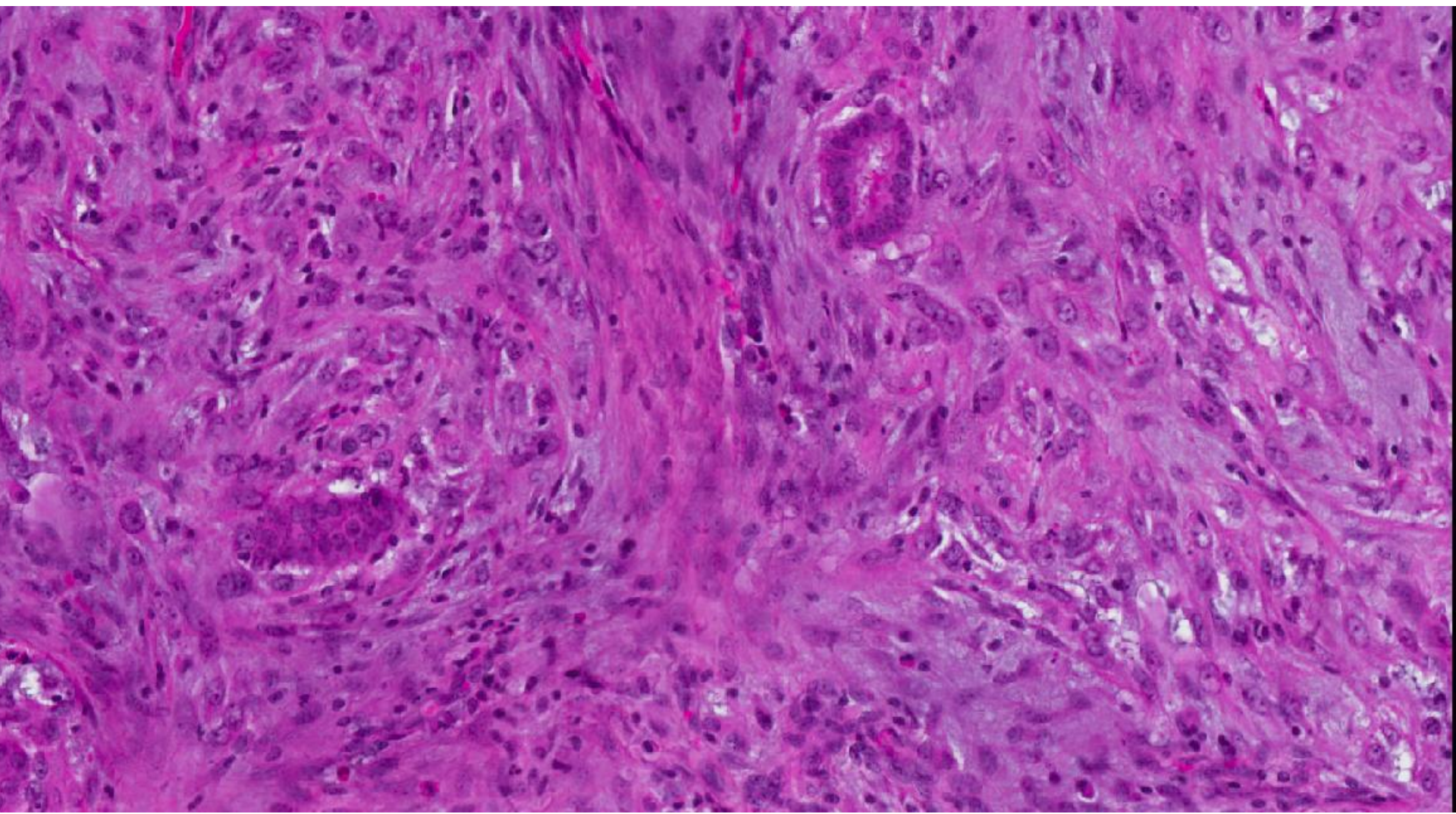


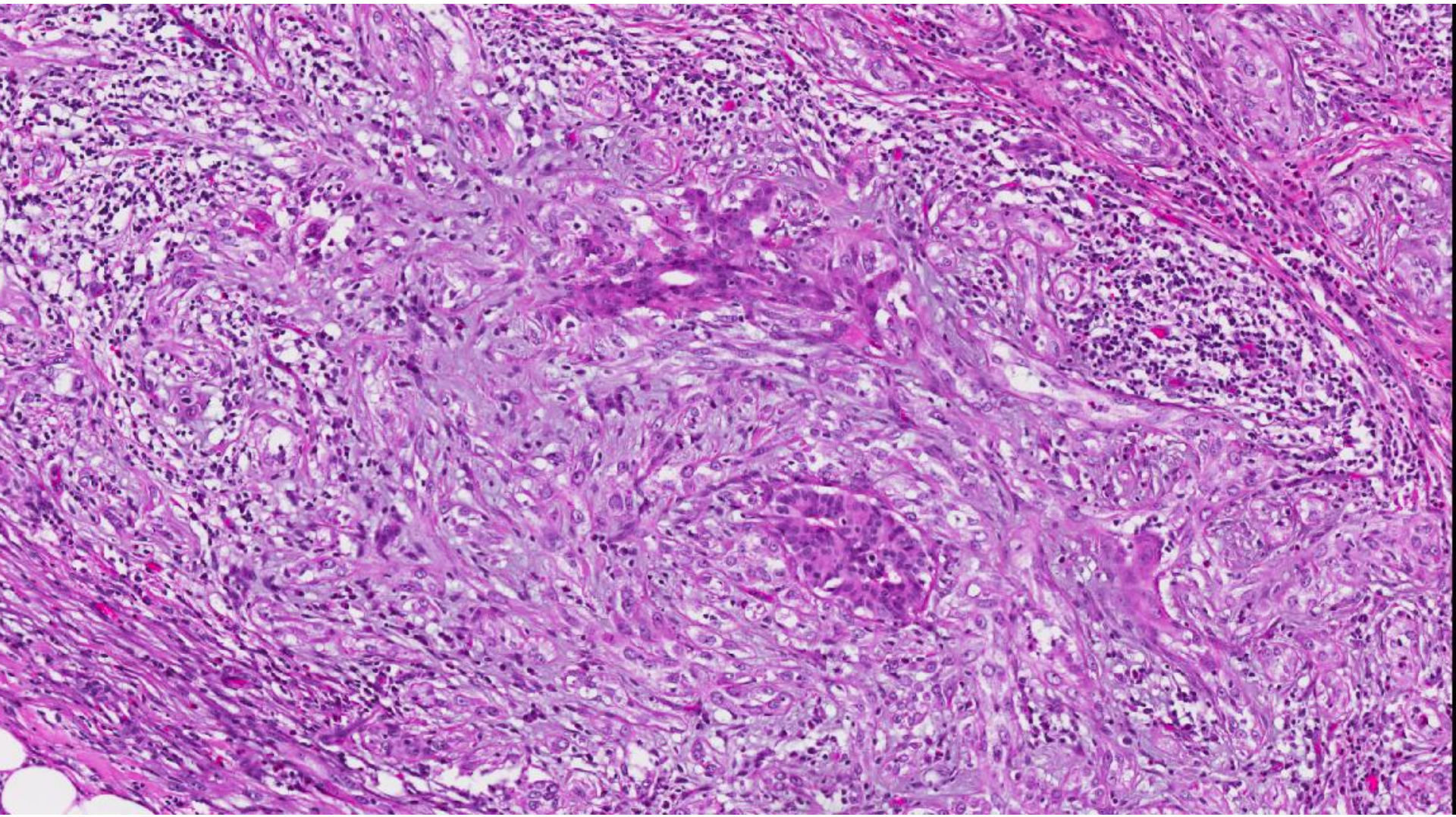


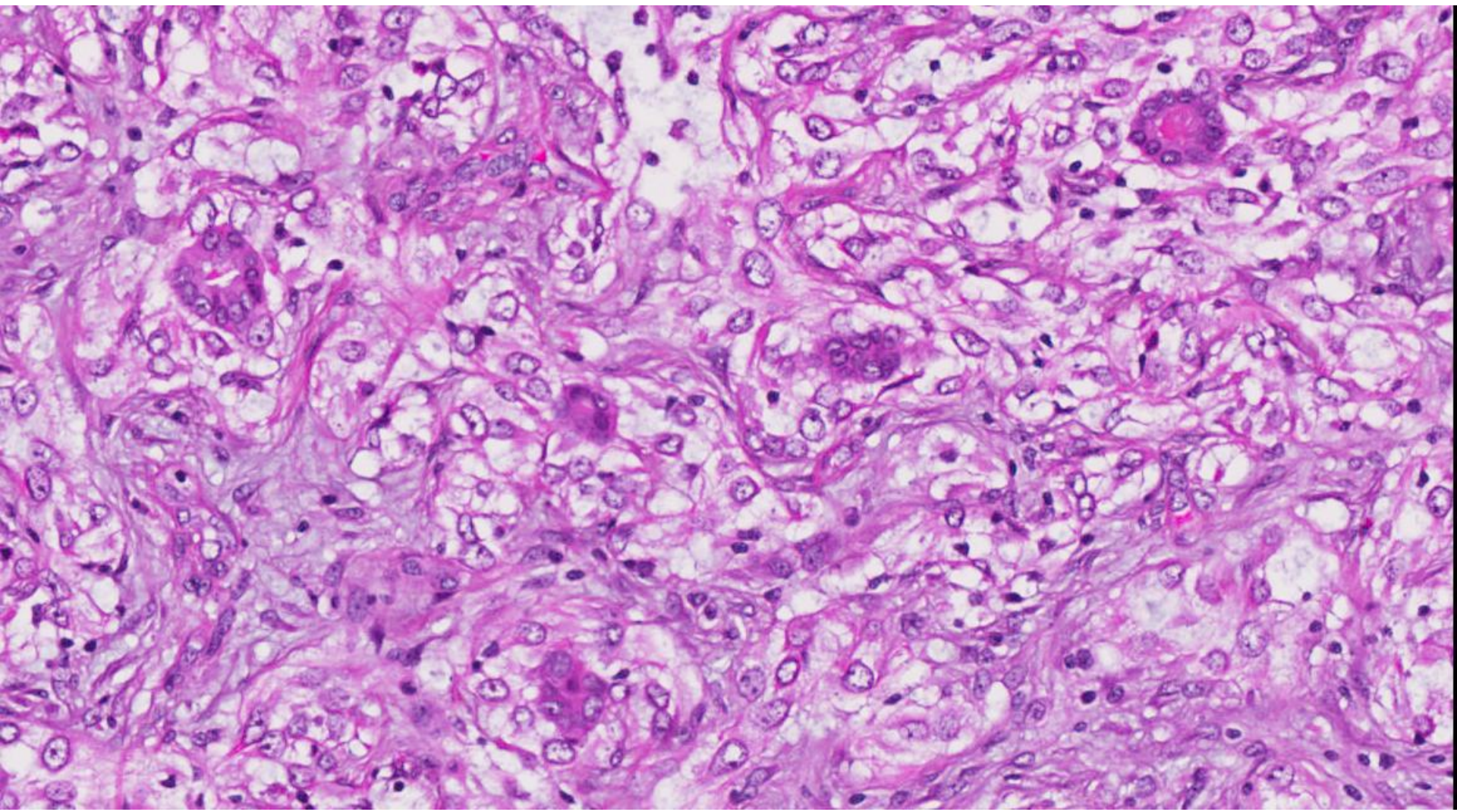




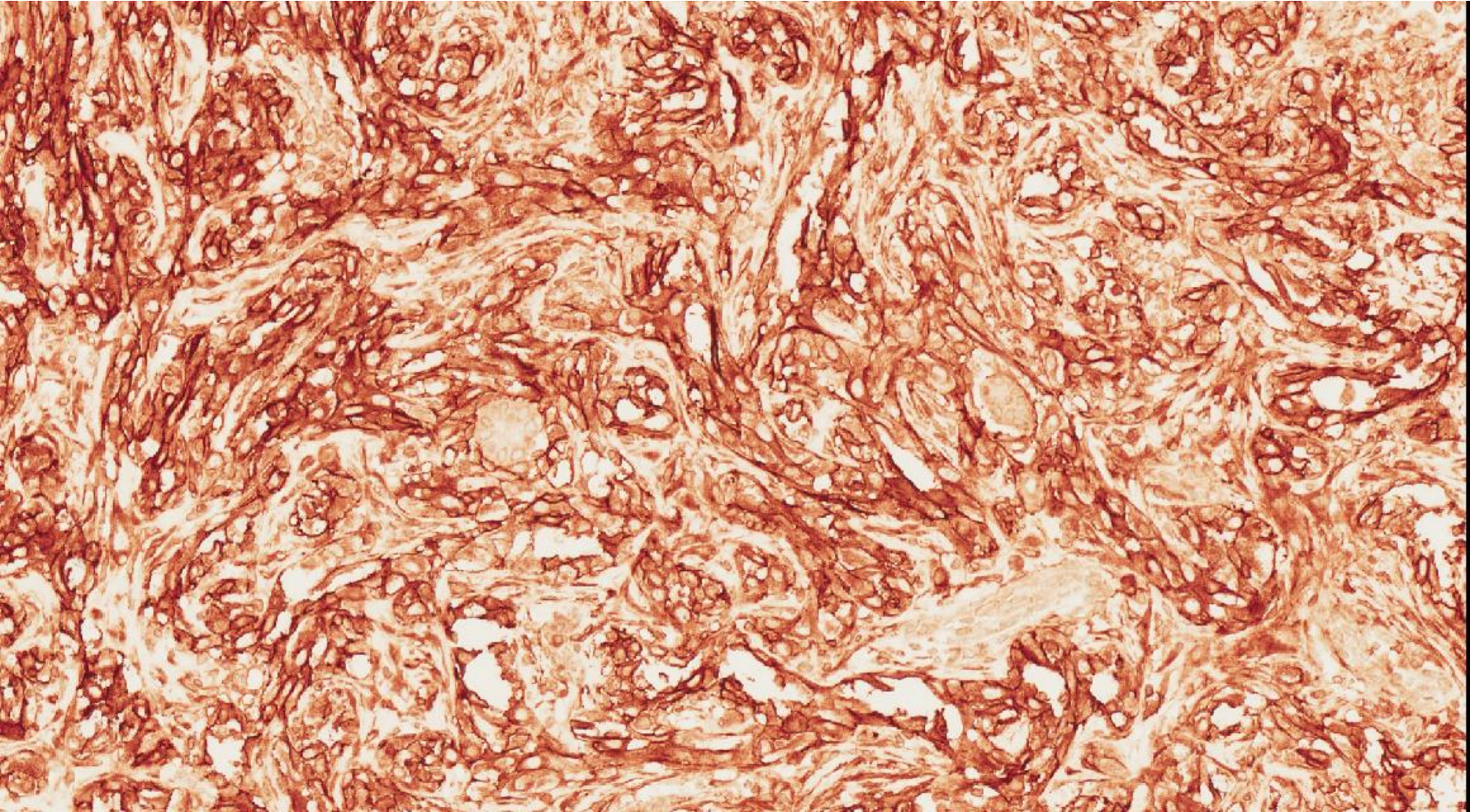




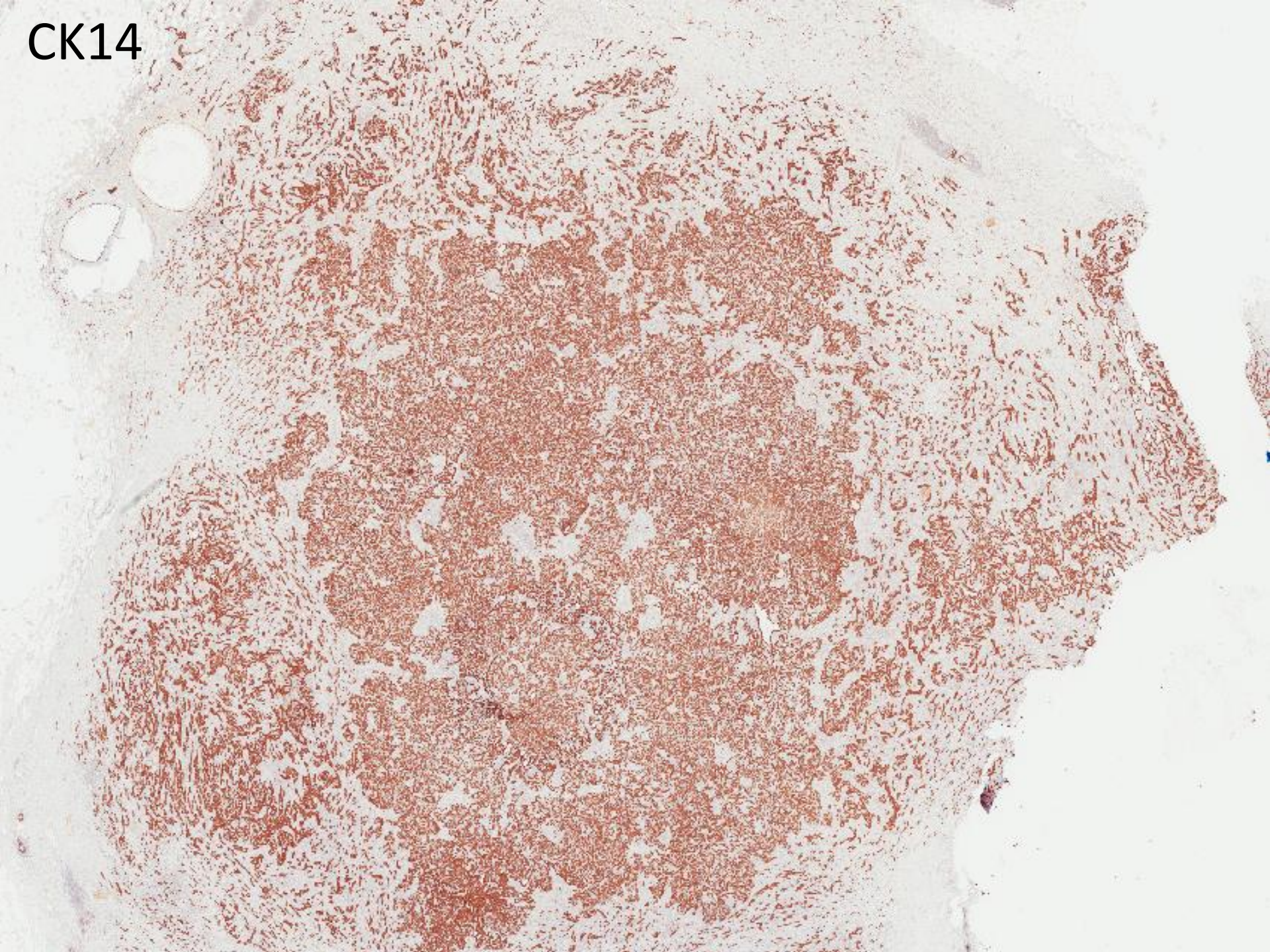




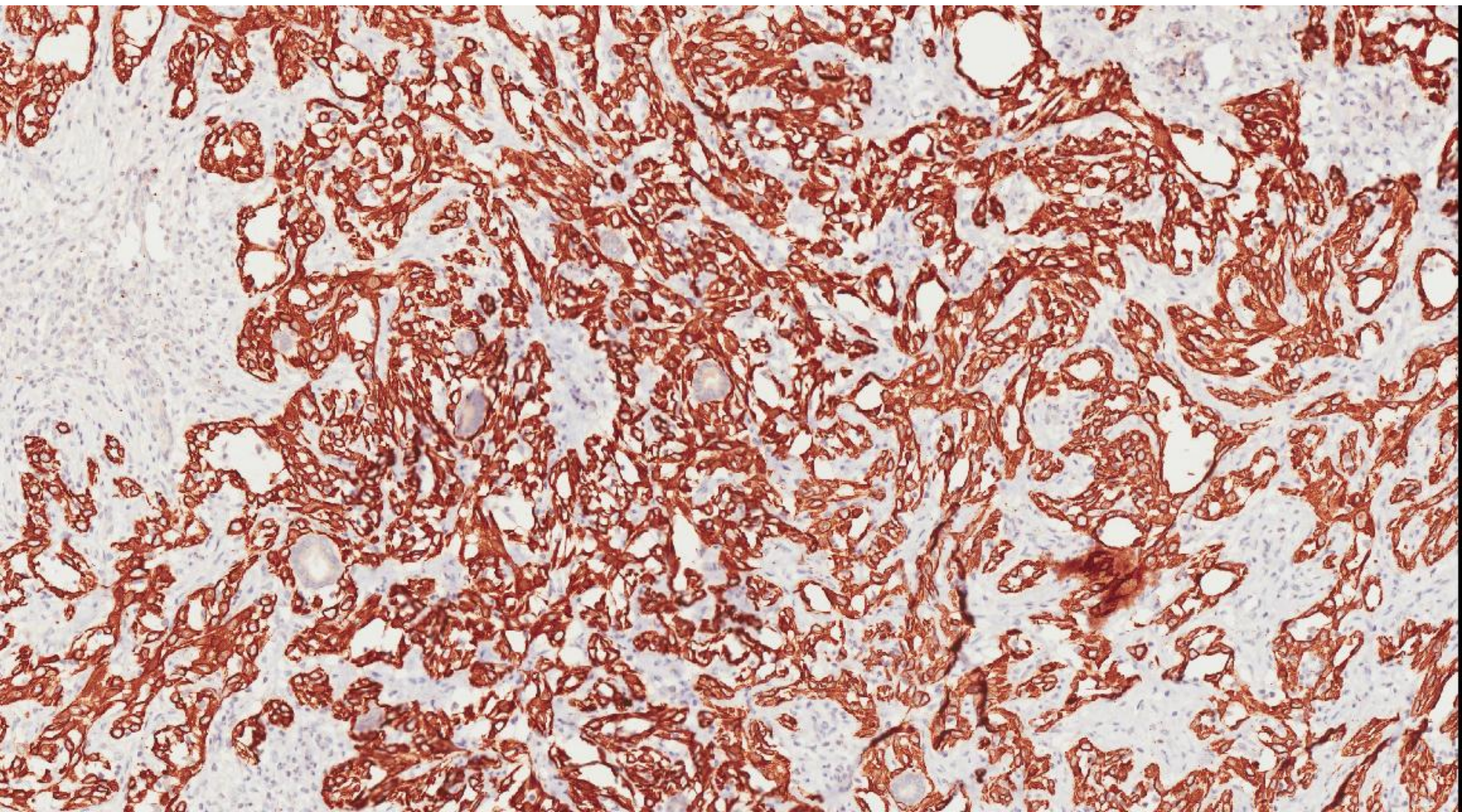
CD10



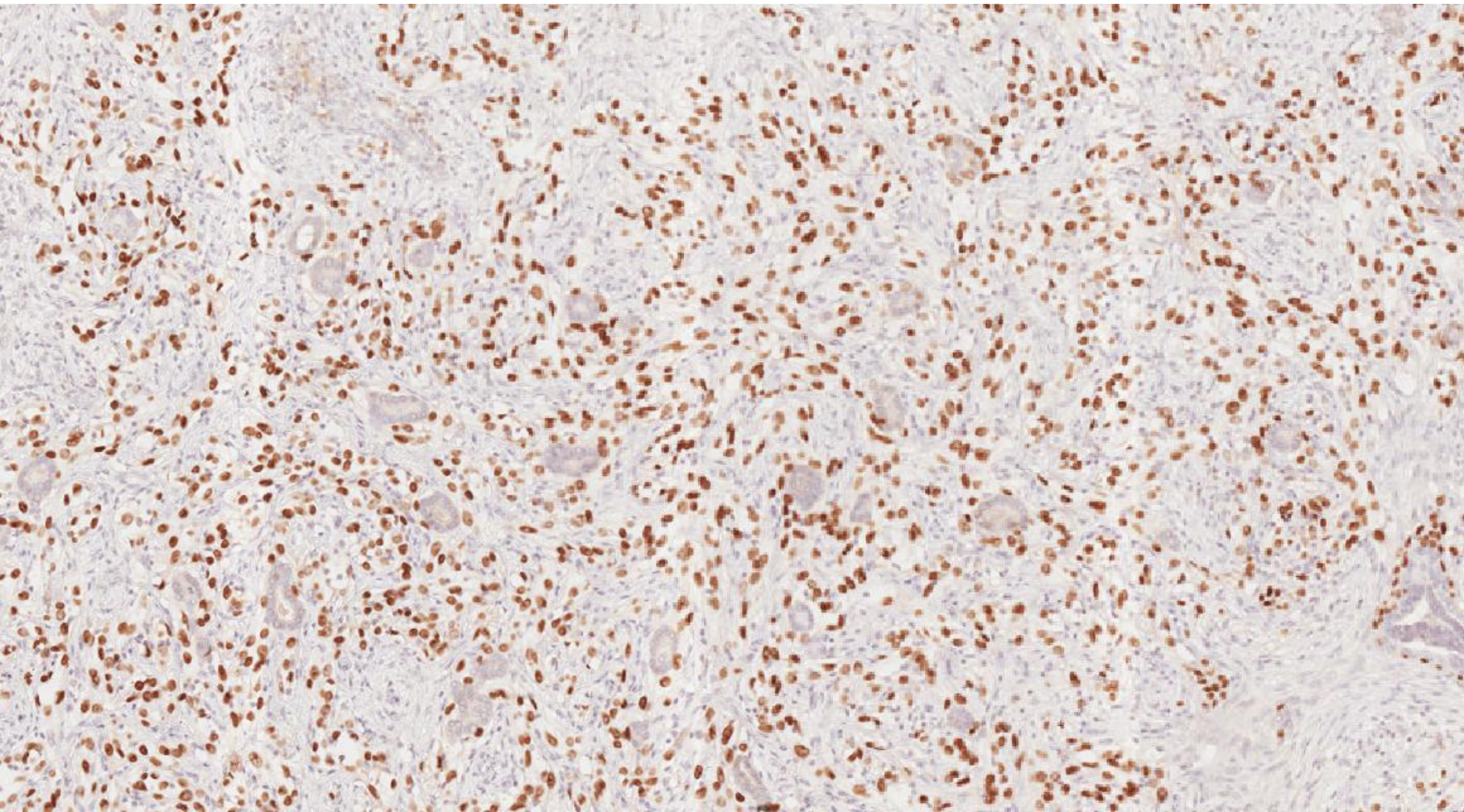
CK14



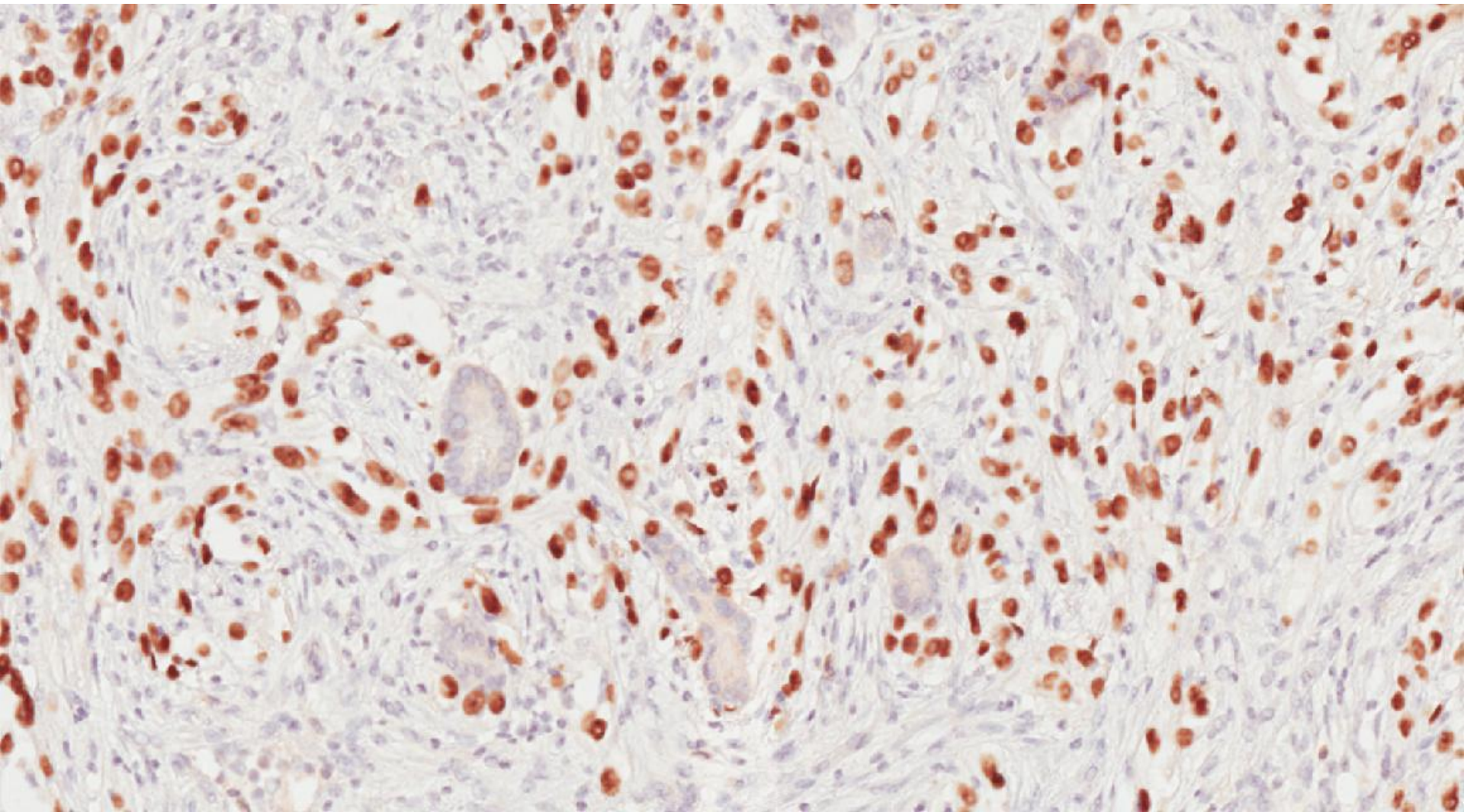
CK14



p63



p63



Diagnosis

Myoepithelial carcinoma (metaplastic carcinoma)
possibly arising in an adenomyoepithelioma, 3.5cm

Benign axillary lymph nodes

Myoepithelial carcinoma

- An uncommon infiltrating tumour composed purely of myoepithelial cells (predominantly spindled) with identifiable mitotic activity.
- Synonyms: Infiltrating myoepithelioma; malignant myoepithelioma.

Myoepithelial carcinoma

- Range from 1 to 21 cm in size.
- Tumours are generally well-defined with focal marginal irregularity, although some are stellate.
- Firm rubbery cut surface with nodular hyalinised areas.
- Foci of necrosis and haemorrhage can be present.

Myoepithelial carcinoma

- Histologically, there is an infiltrating proliferation of spindle cells often lacking significant atypia.
- Mitotic activity may not exceed 3–4/10 hpf.
- Higher-grade features with moderate to marked nuclear atypia, brisk mitoses, necrosis and focal squamous differentiation have been described.
- Spindled tumour cells appear to emanate from myoepithelial cells of ductules entrapped in the periphery of the lesion, or arise from an underlying adenomyoepithelioma.
- Aggregates of collagen and prominent central hyalinization may be evident.
- Immunohistochemistry shows positive staining for myoepithelial markers: p63, SMA, calponin, caldesmon, S100, GFAP, keratin 14.

Myoepithelial carcinoma

- Differential diagnoses:
 - Sarcoma
 - Fibromatosis
- Morphologically, it may be almost impossible to make the distinction without the assistance of adjunctive immunohistochemistry.
- Spindle cell metaplastic carcinoma is likely synonymous with myoepithelial carcinoma.

Myoepithelial carcinoma

- Local recurrence or distant metastases have been documented.
- More aggressive behaviour with regional and distant spread in up to half of cases is reported.
- Complete excision with uninvolved margins is recommended.
- As these tumours are usually triple-negative, adjuvant therapeutic options are limited.
- Role of radiation and chemotherapy is not well-established.