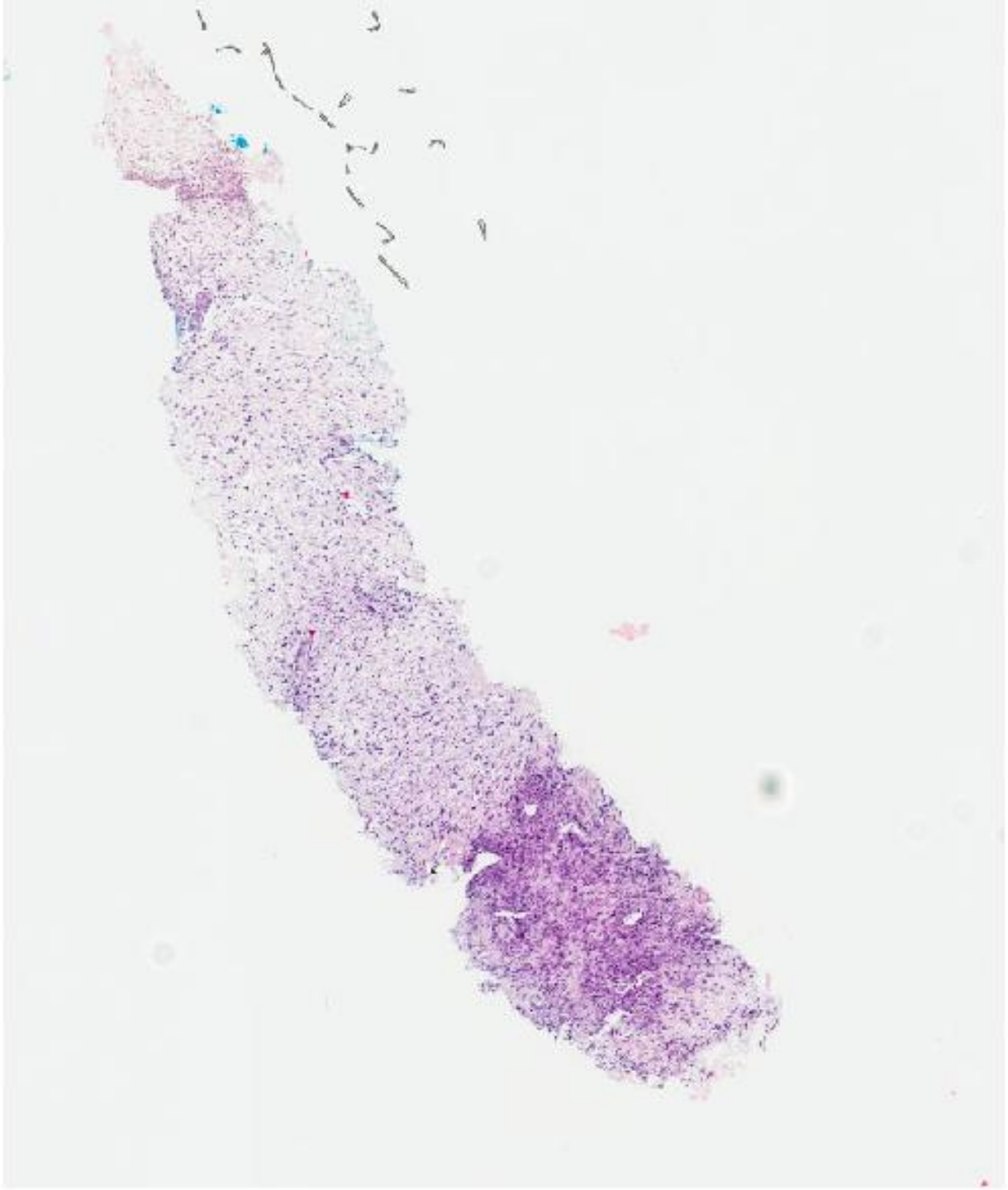
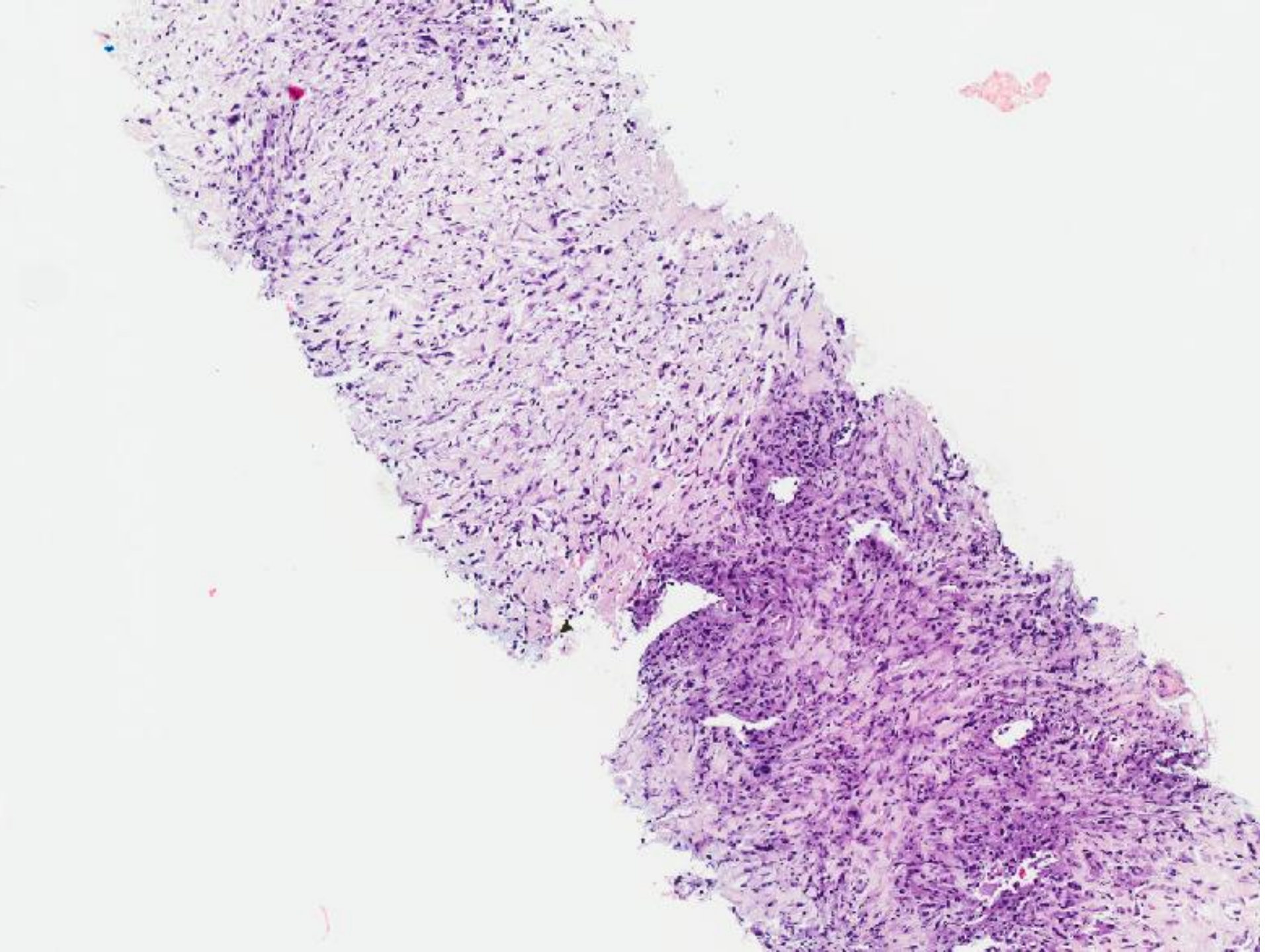
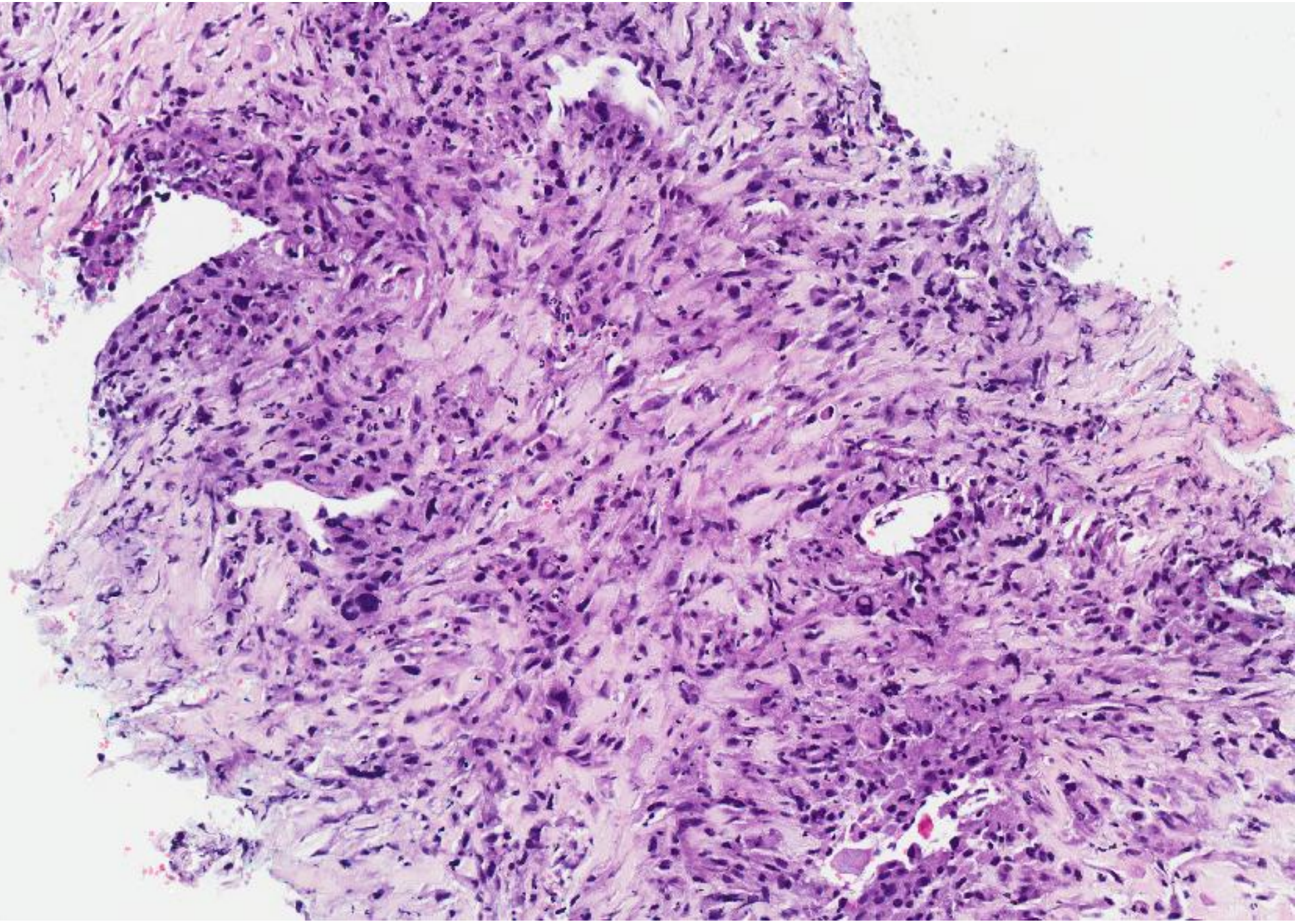
CASE 6

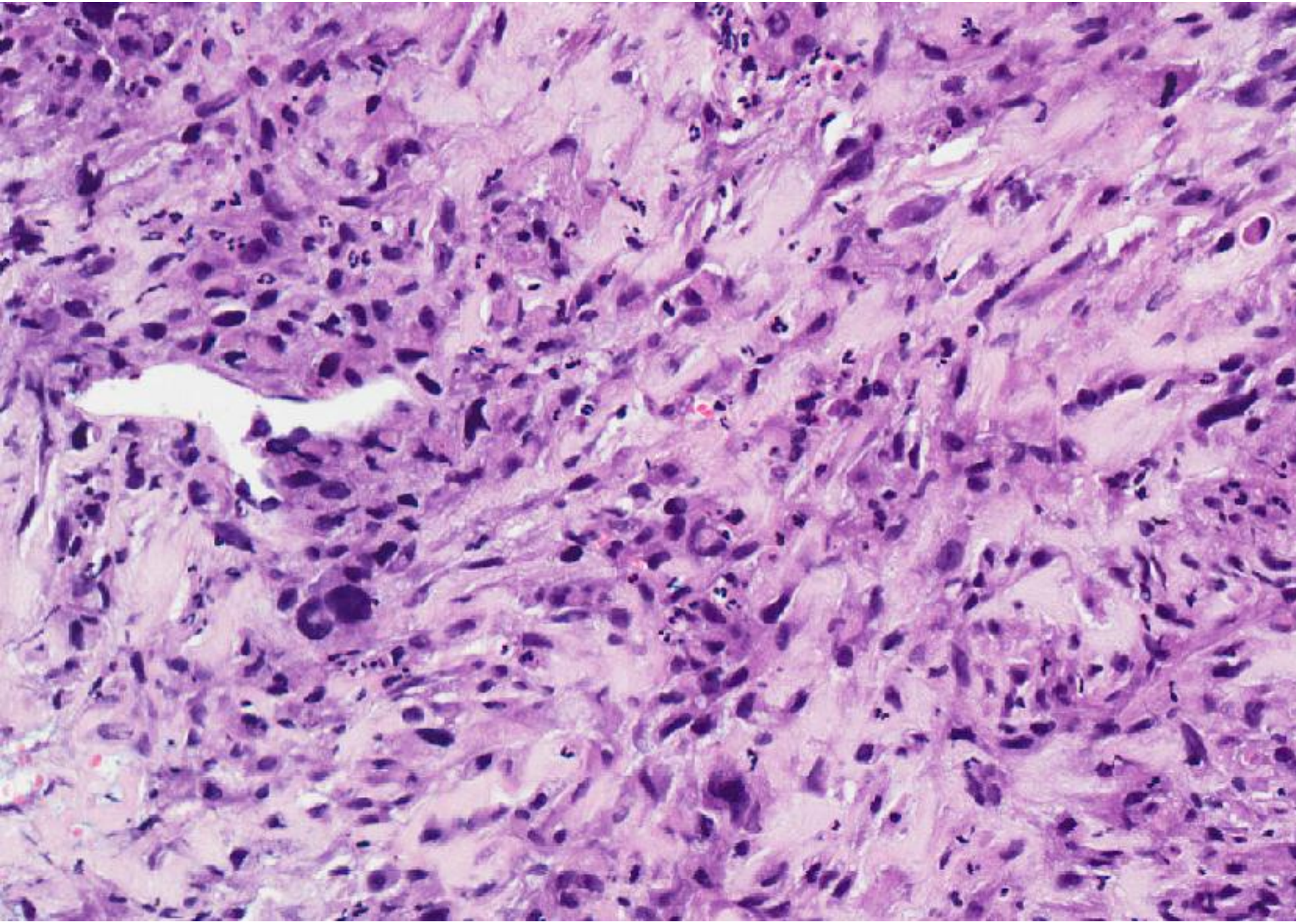
66 year old Chinese lady presented with a lump in the upper outer quadrant of the right breast.
A trucut biopsy was performed, followed by an incisional biopsy of the mass.

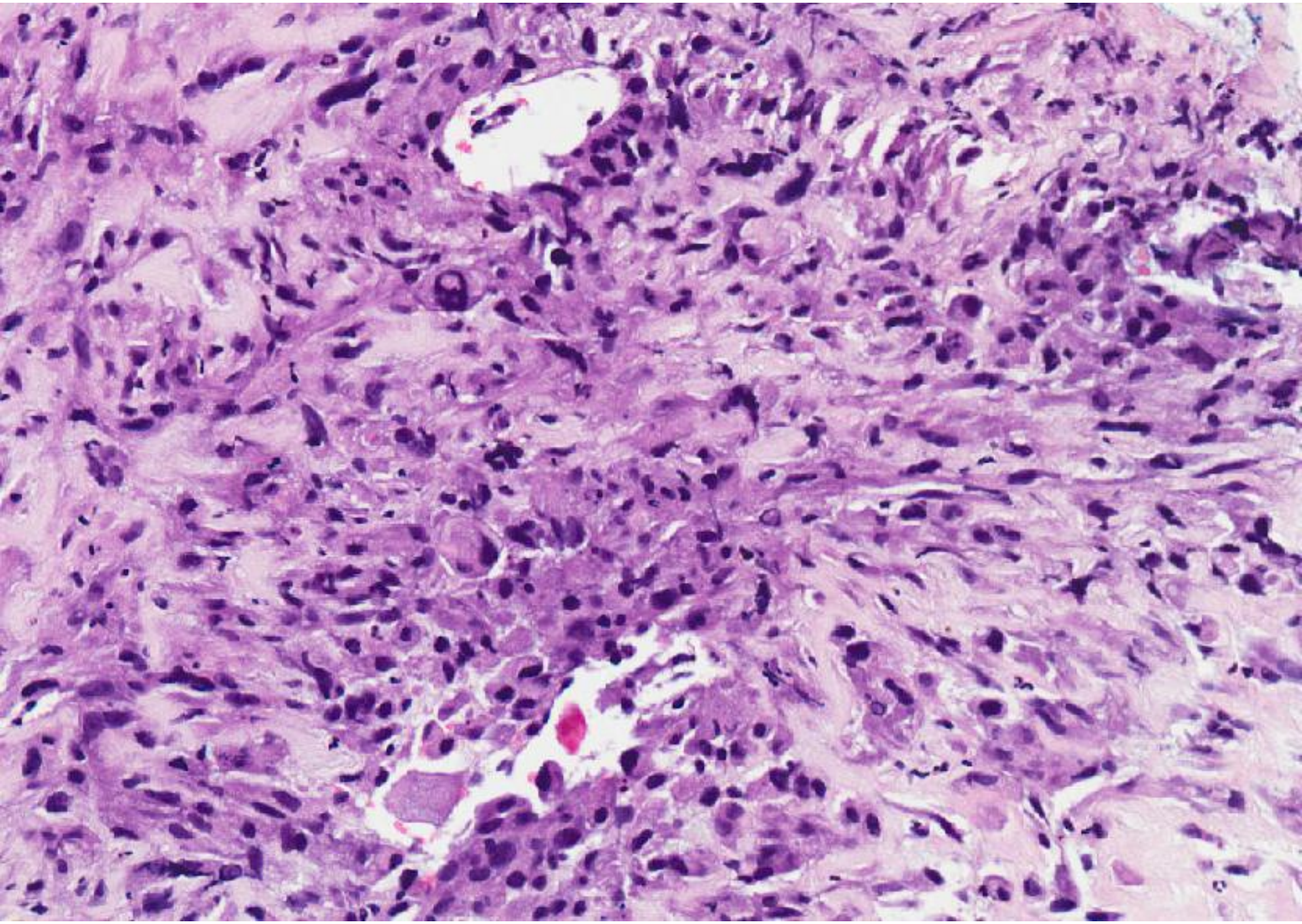
Trucut biopsy

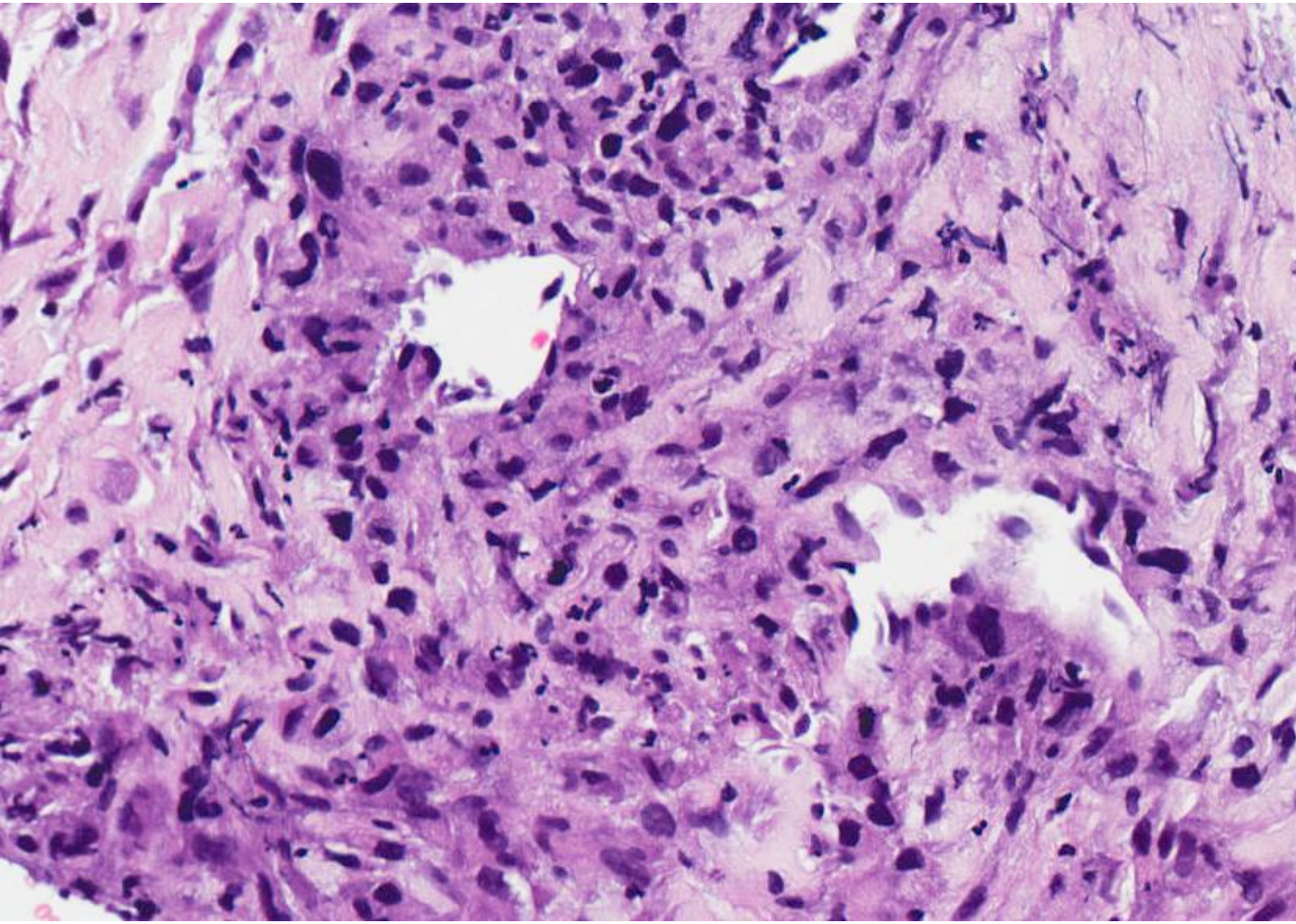




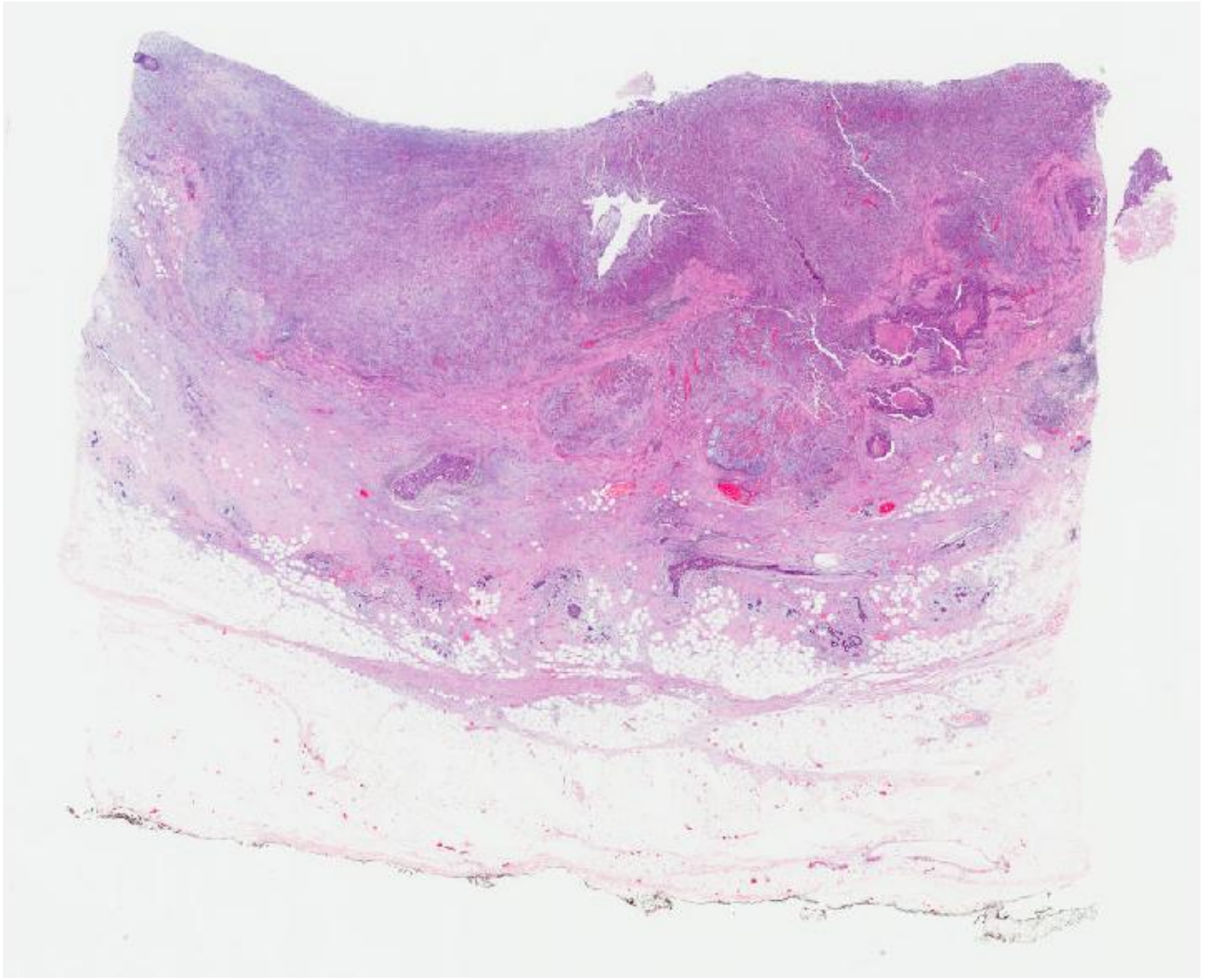


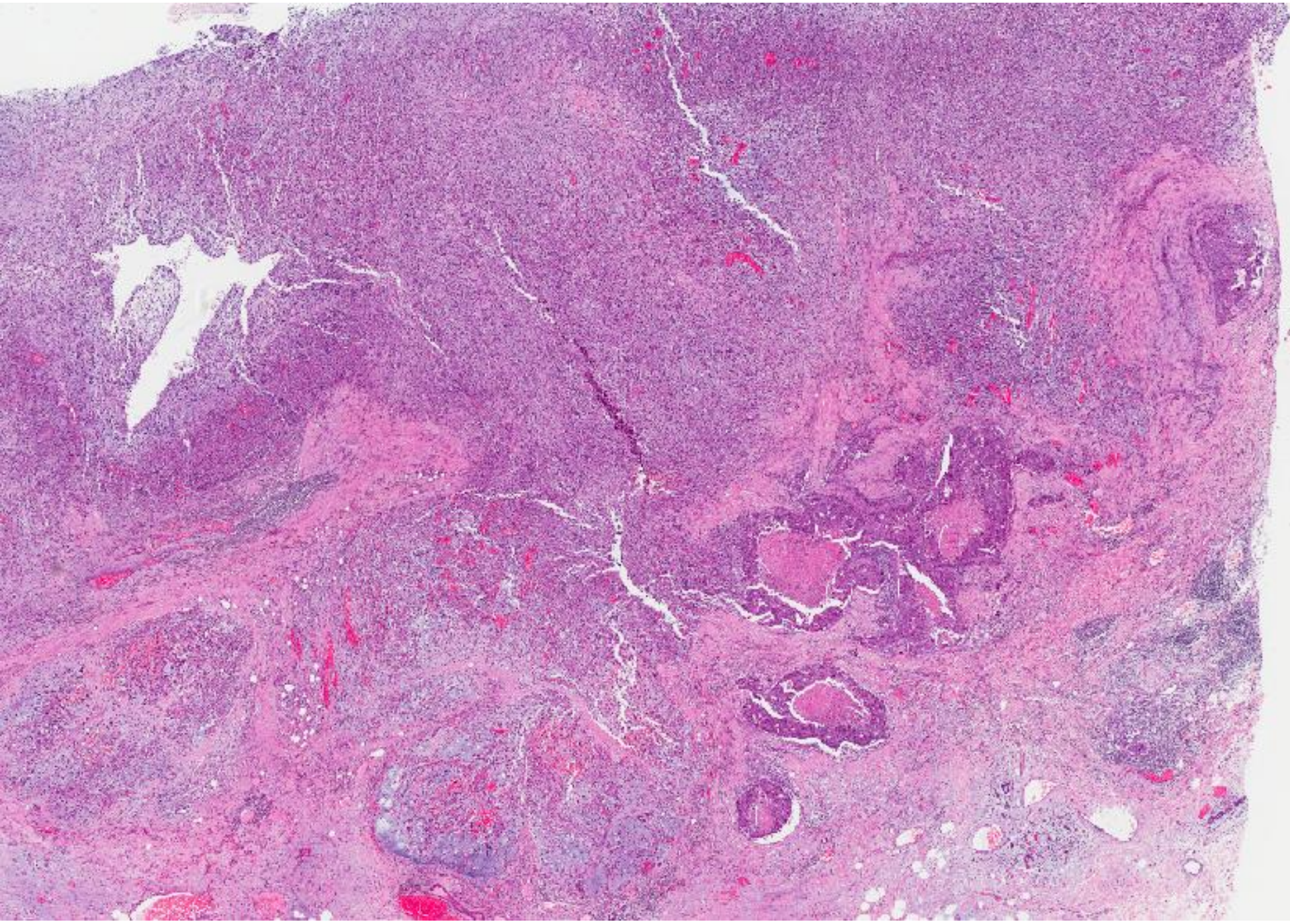


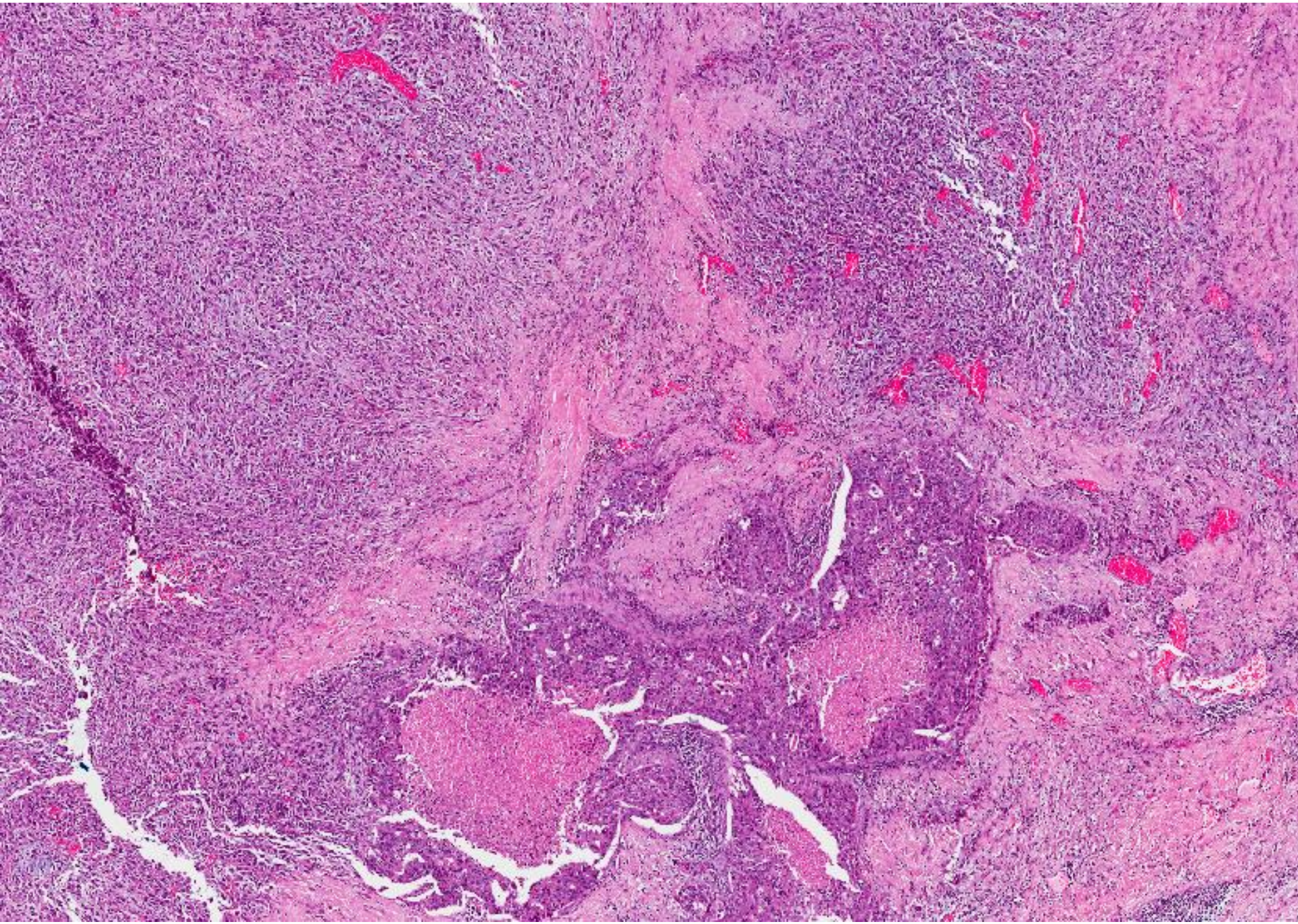


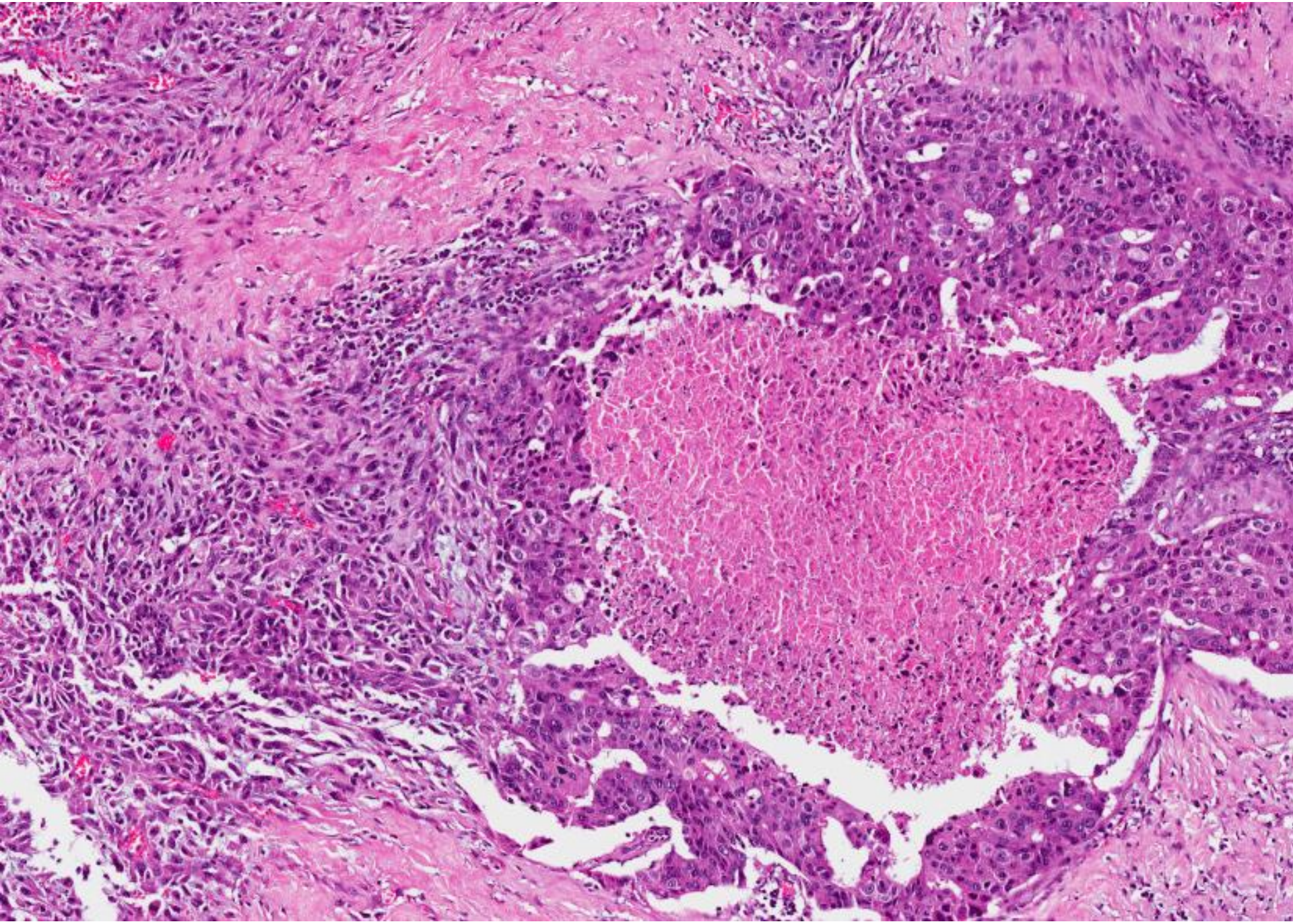


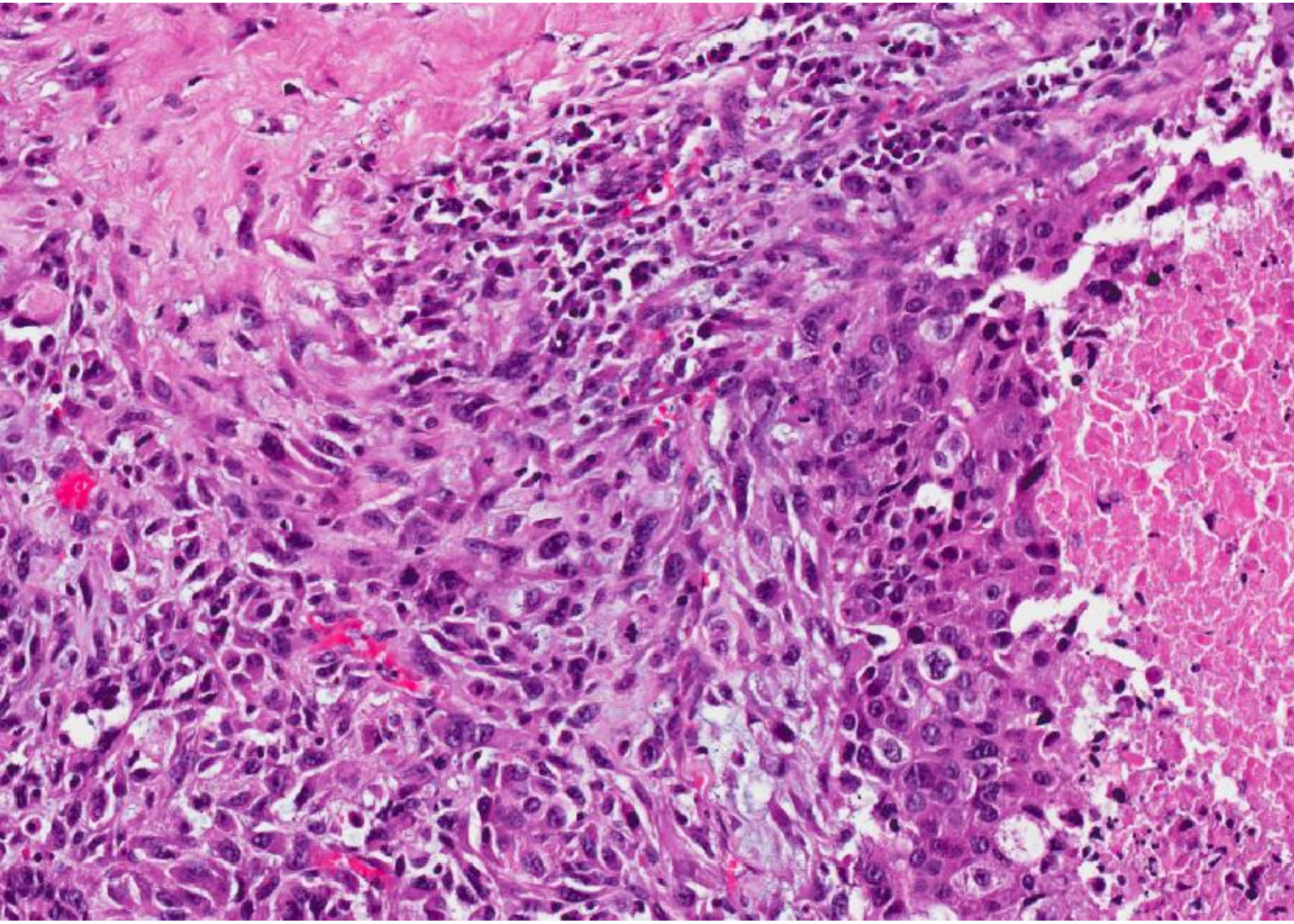
Incisional biopsy

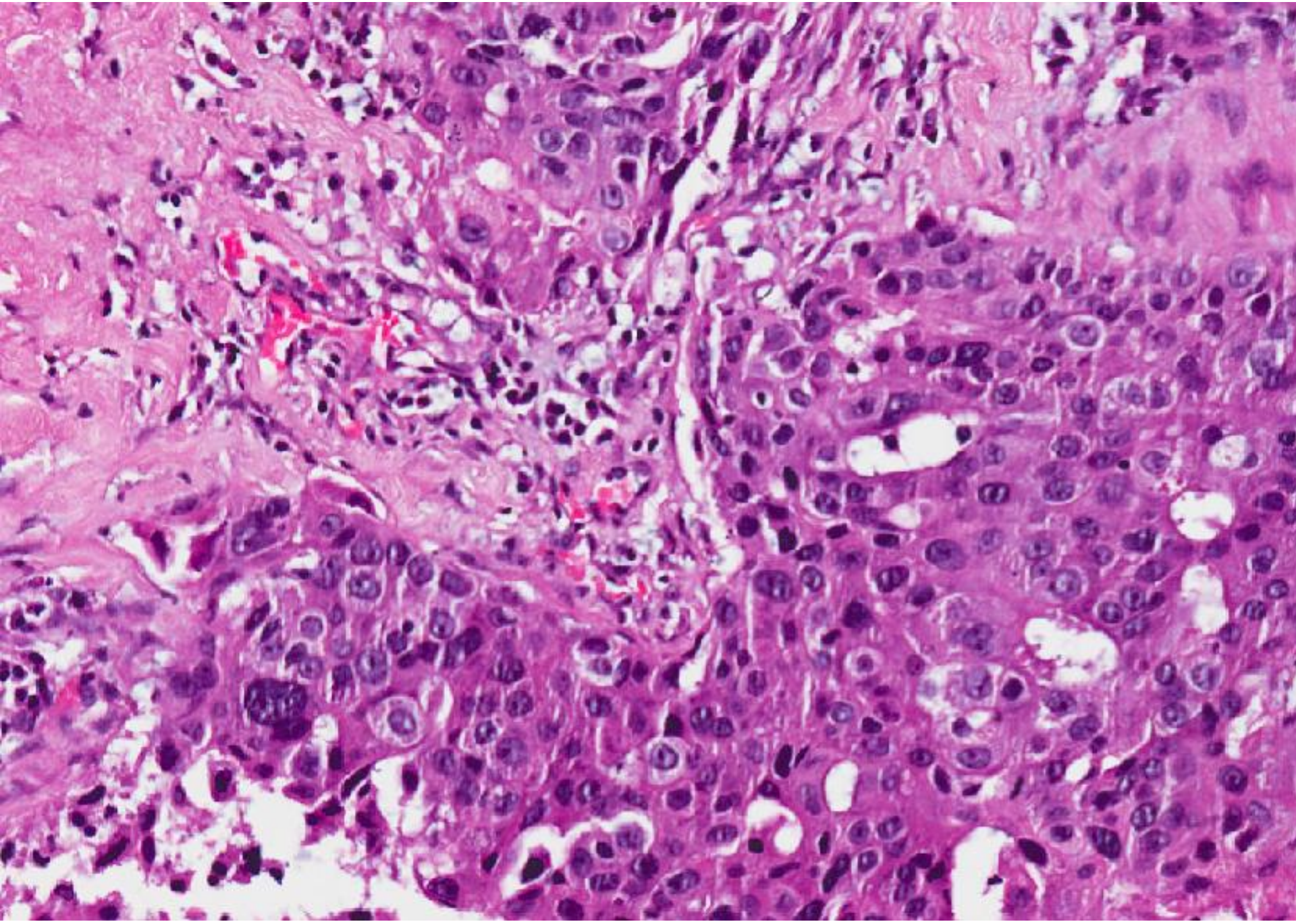


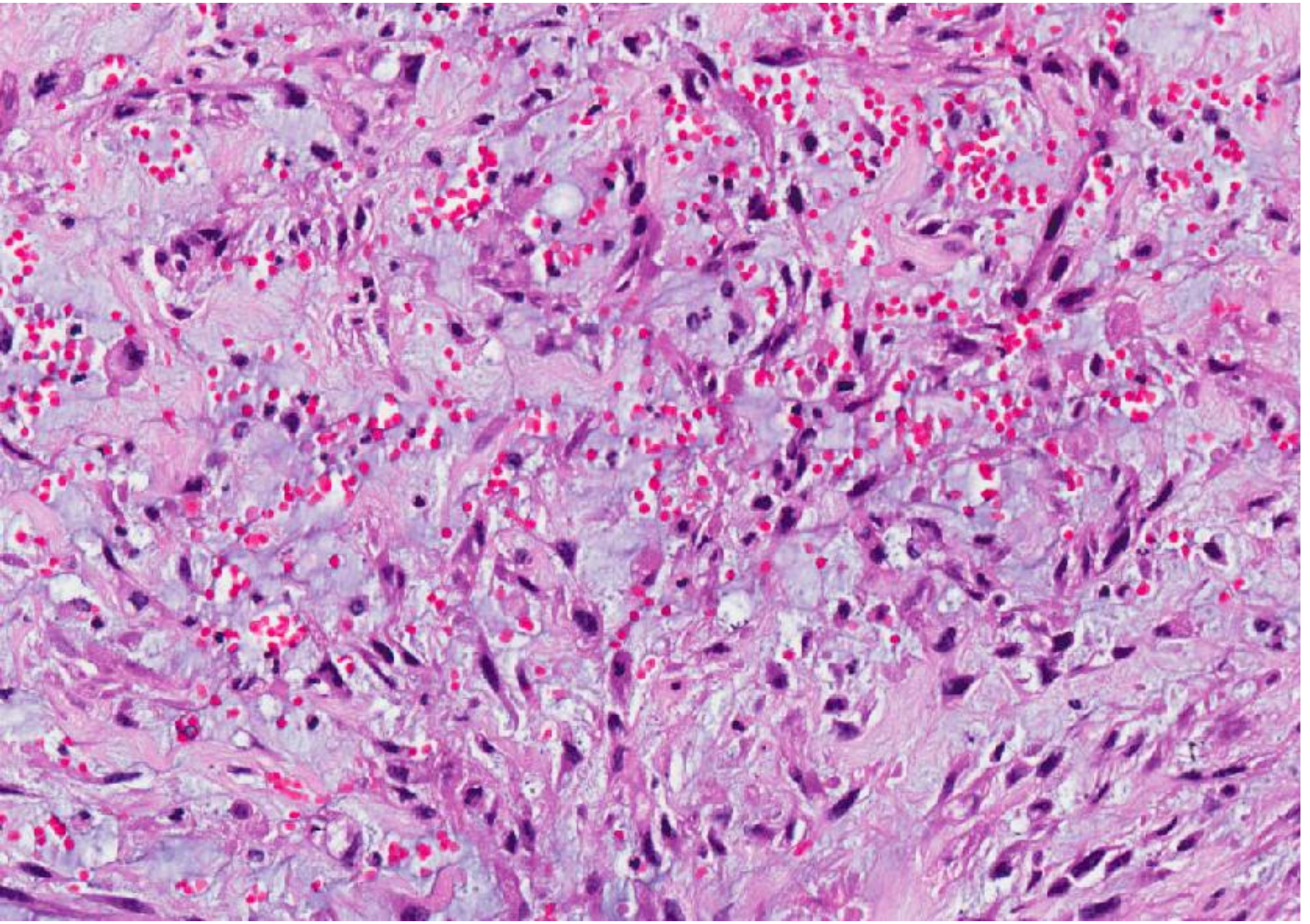


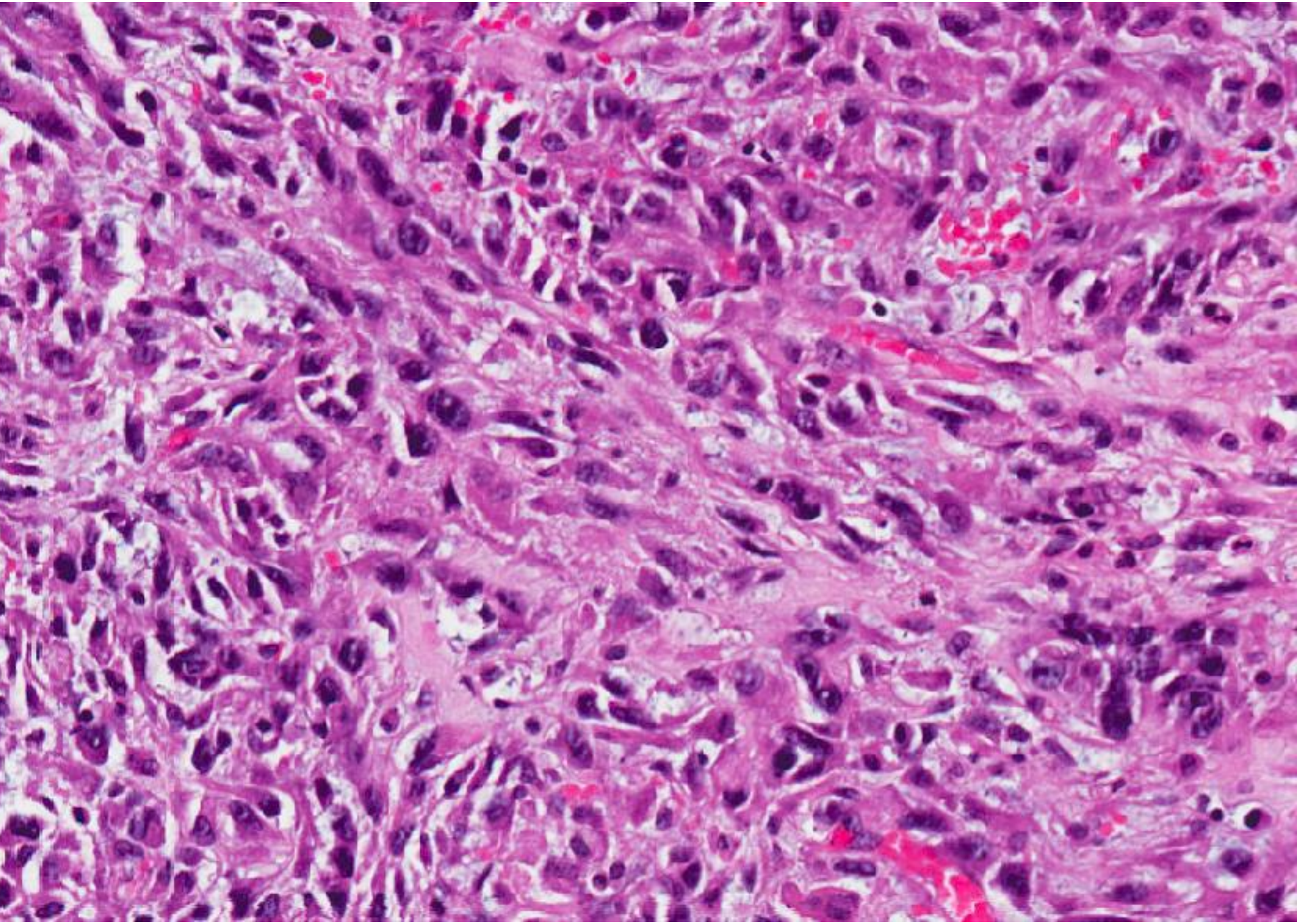


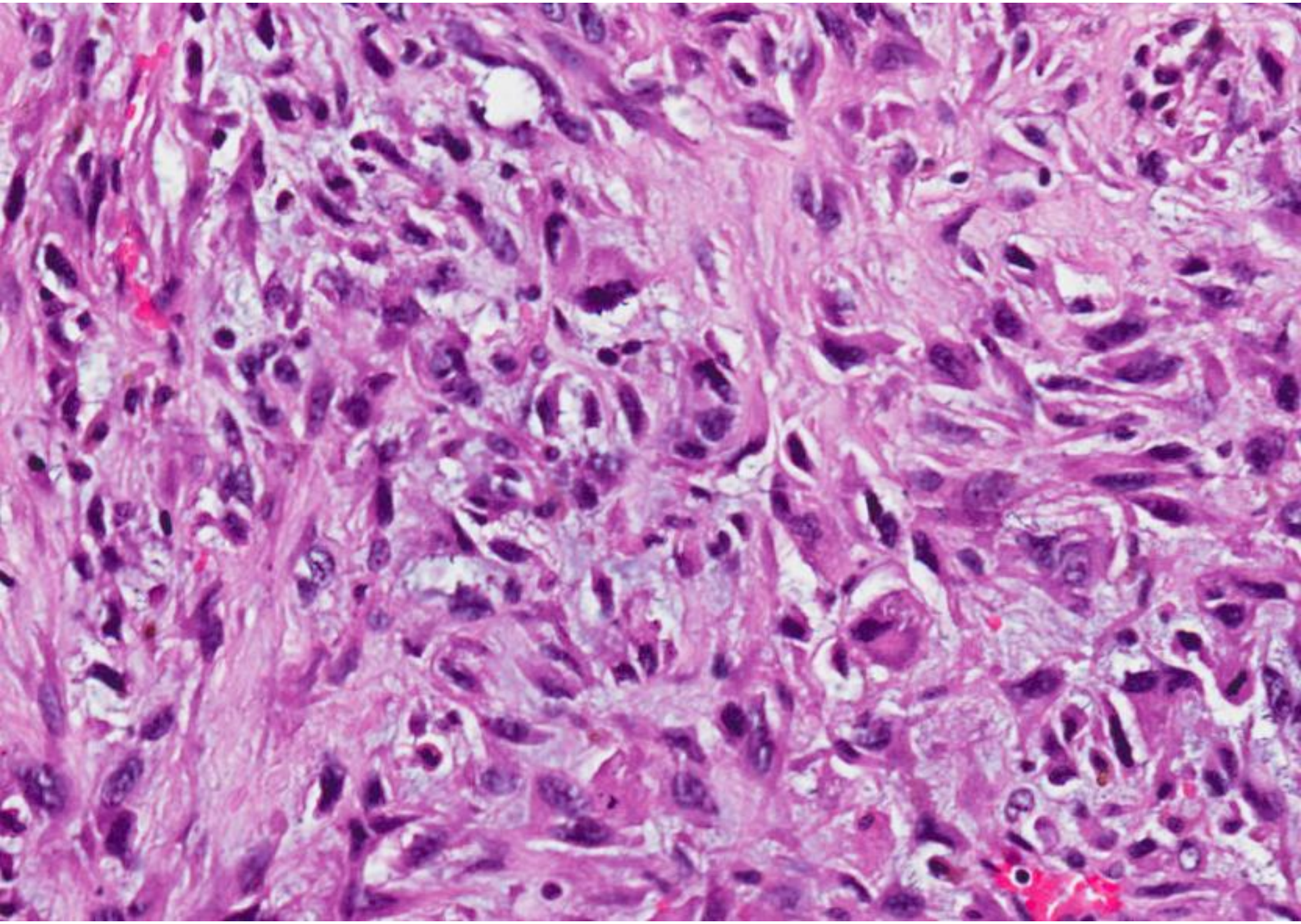


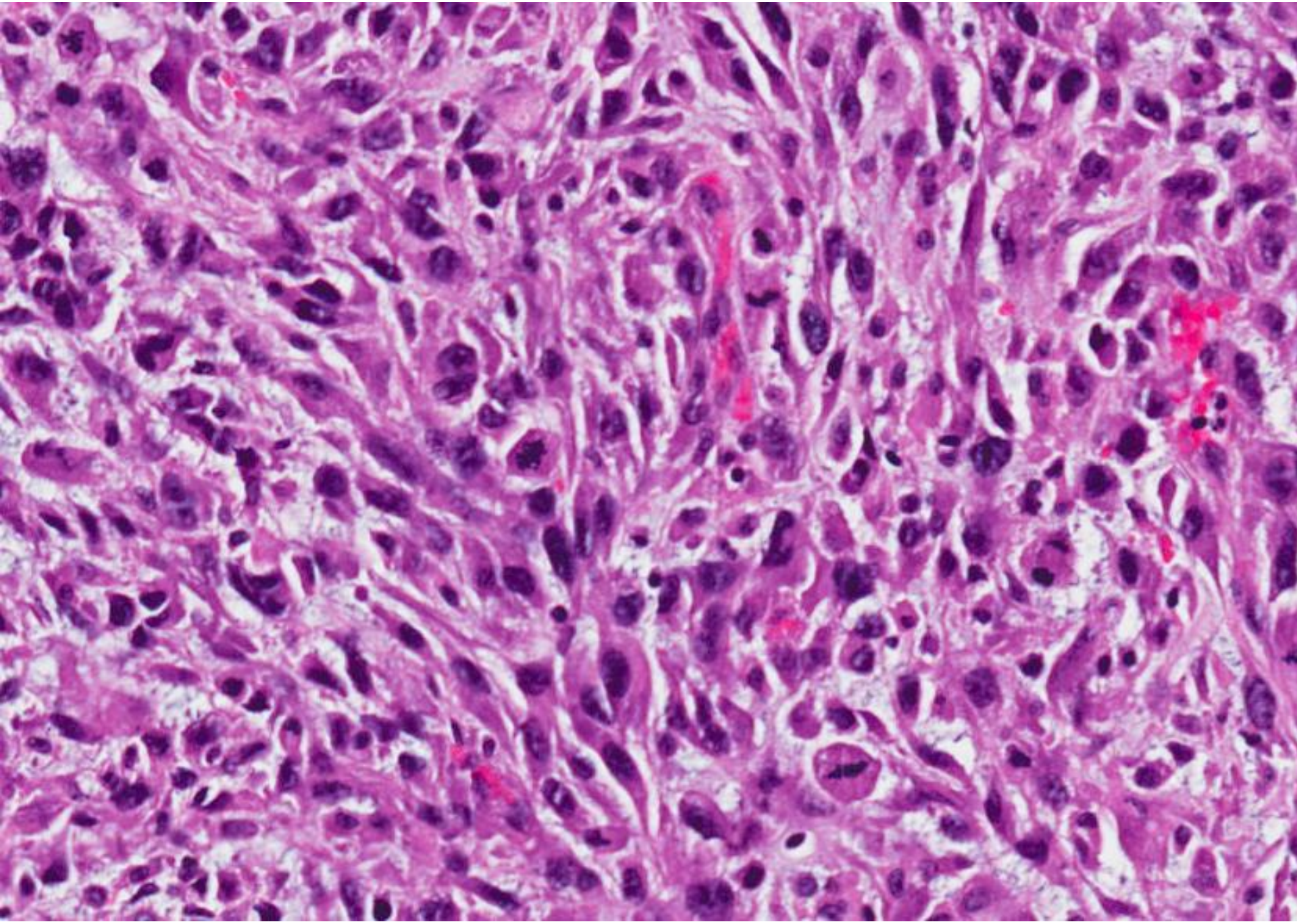












Diagnosis

- Metaplastic carcinoma.

Metaplastic carcinoma

- Breast carcinoma with metaplasia to squamous or mesenchymal-like elements.
- May show both conventional carcinoma and metaplastic components, or may consist entirely of metaplastic elements.
- Synonyms:
  - Carcinosarcoma.
  - Sarcomatoid carcinoma.
  - Carcinoma with pseudosarcomatous metaplasia.
  - Carcinoma with pseudosarcomatous stroma.
  - Biphasic carcinoma.
  - Spindle cell carcinoma.
  - Spindle cell metaplastic tumour.
  - Matrix producing carcinoma.
  - Adenosquamous carcinoma, etc

Metaplastic carcinoma

- 0.3% to 5% of all invasive breast cancers.
- Heterogeneous group of tumours.
- 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
  - Mixed

Metaplastic carcinoma

- Various components observed should be provided in the report of a metaplastic carcinoma.
- > 90% are triple negative.
- CK 5/6, CK14 and EGFR positive.
- > 90% are p63 positive.

Differential diagnosis

- Malignant phyllodes tumour with sarcomatous overgrowth.
- Primary breast sarcoma.

Immunohistochemistry

Tumour	Metaplastic carcinoma	Malignant phyllodes tumour	Primary breast sarcoma
CK5/6	+	-	-
CK14	+	-	-
EGFR	+	-	-
p63	+	-	-
34βE12	+	-	-
AE1/3	+	-	-
CD34	-	+	-
Bcl2	-	+	-

Core biopsy

- On core biopsy, it may be difficult to be definitive.
- While sarcomatous elements of malignant phyllodes tumours are usually negative for keratins, they can occasionally disclose focal reactivity.
- The presence of focal keratin staining in a core biopsy with malignant mesenchymal appearances should be interpreted with caution.
- Diffuse keratin staining is consistent with metaplastic carcinoma.