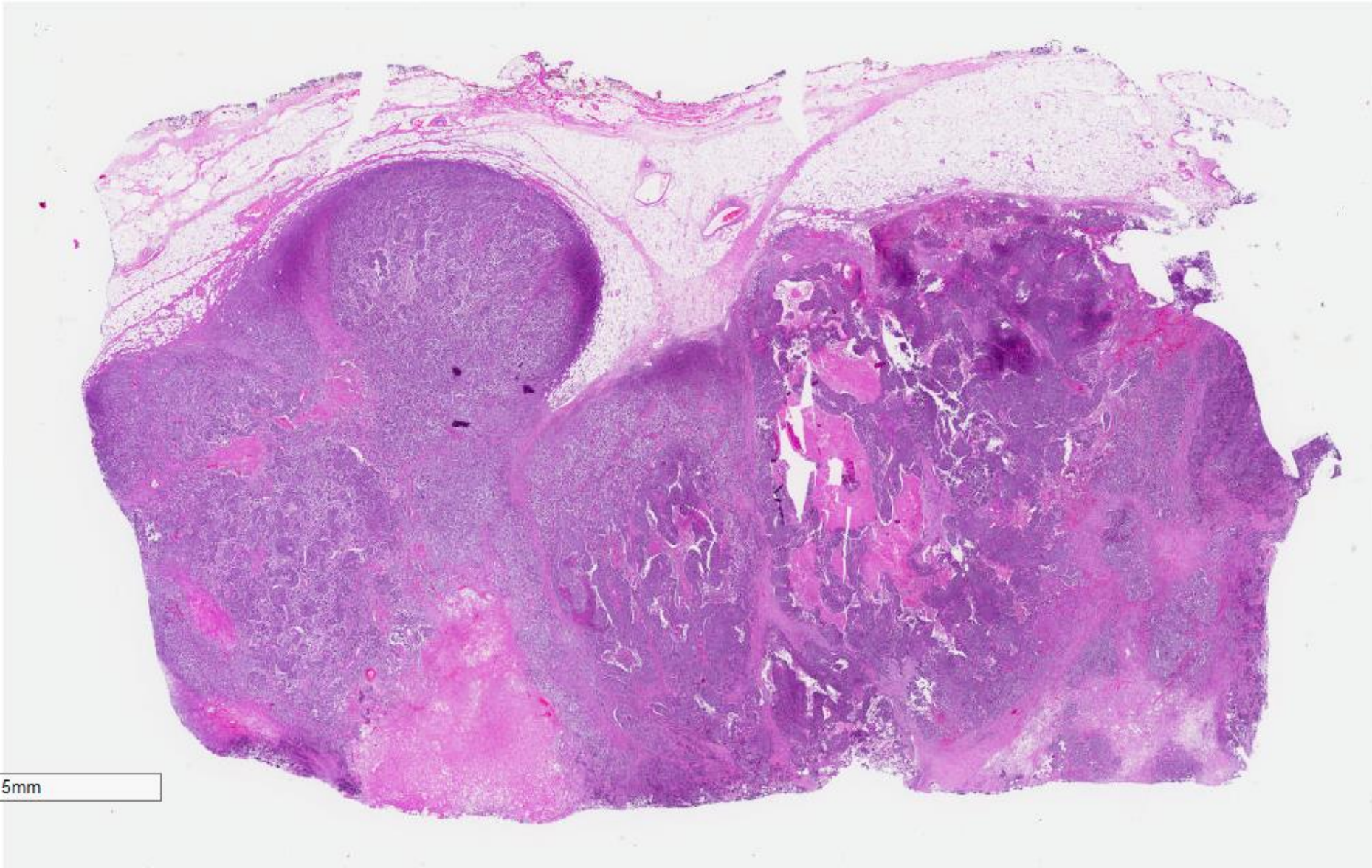


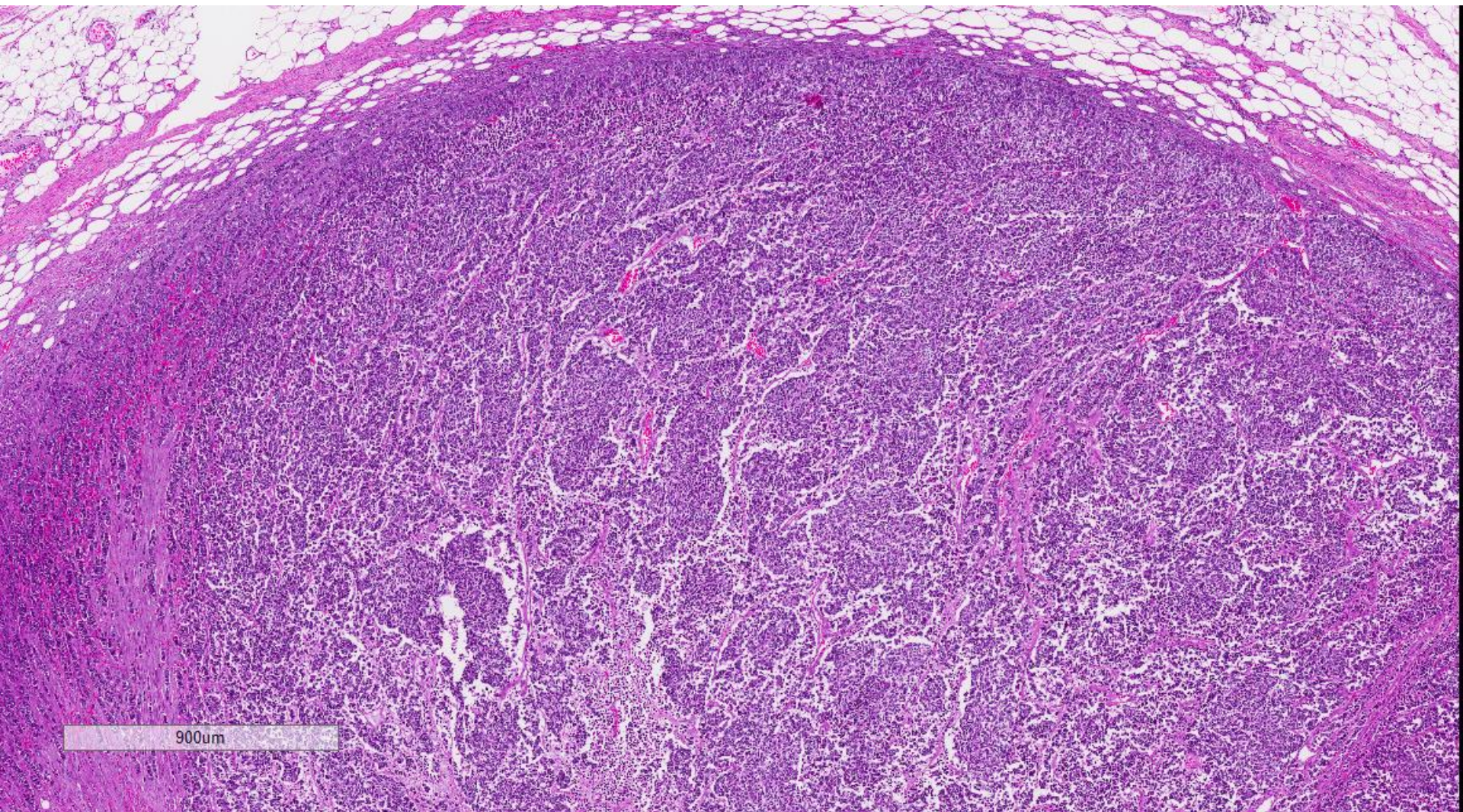
Case 4

A 58 year old lady presented with a large breast mass.

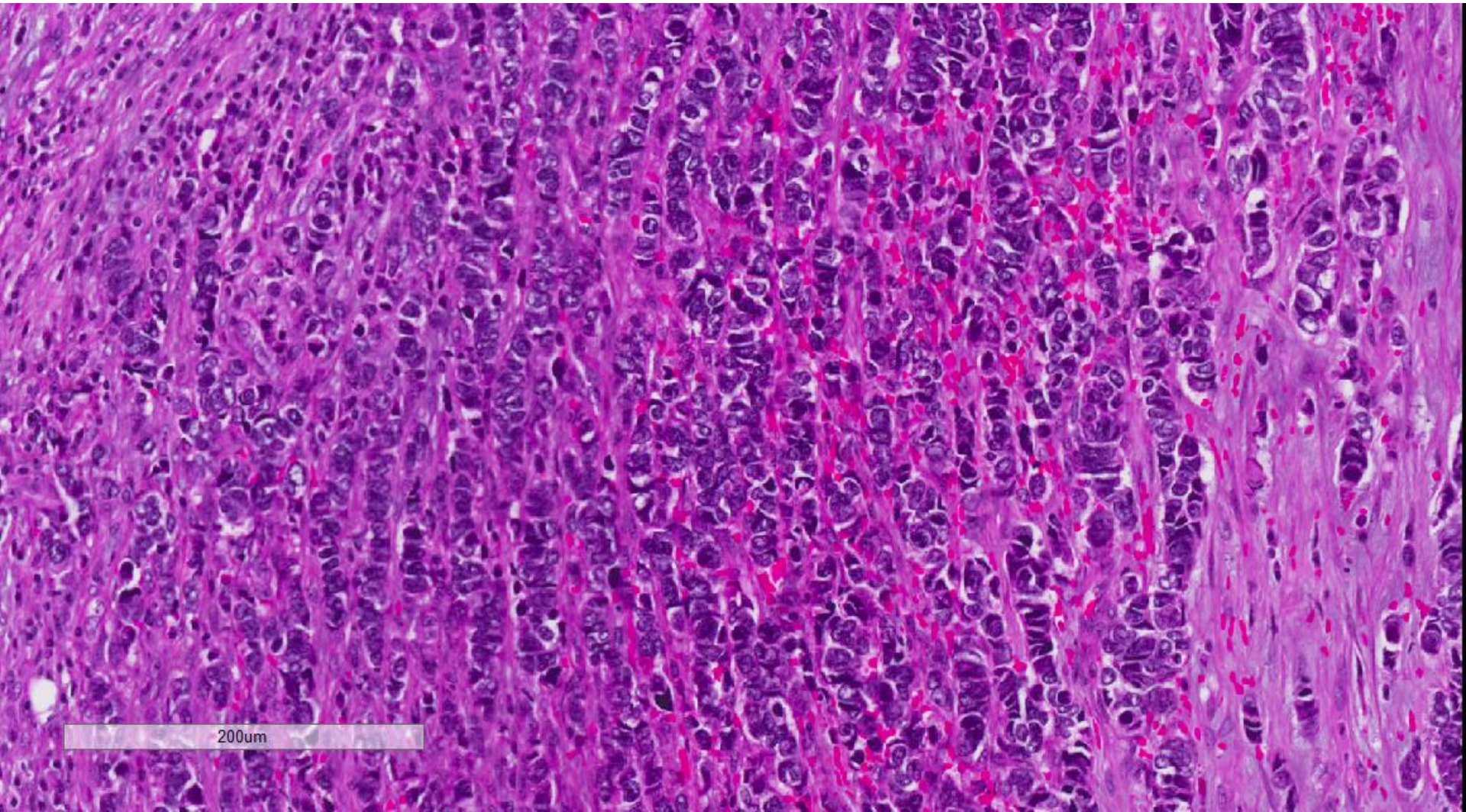
A trucut biopsy confirmed malignancy and a mastectomy followed.

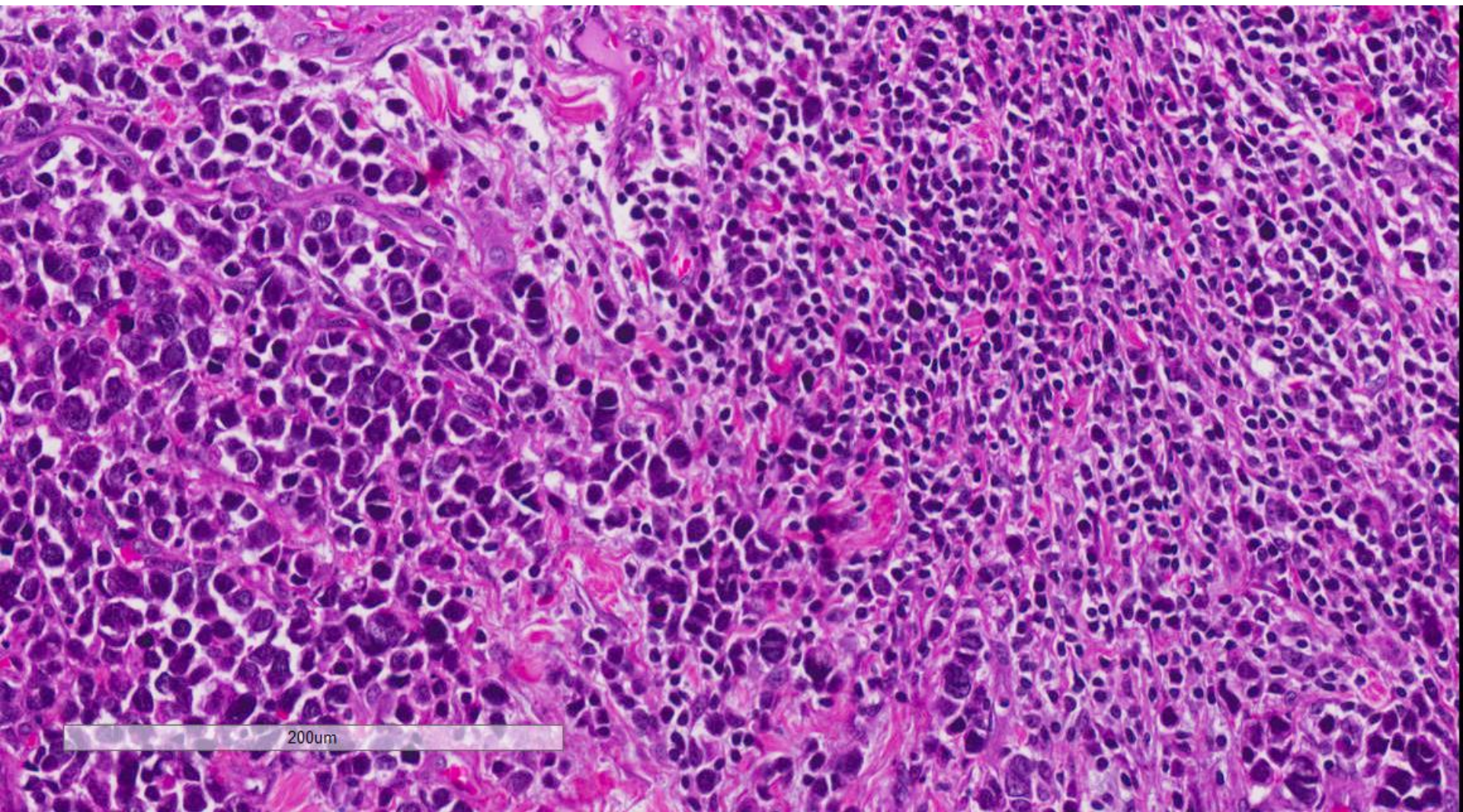


5mm

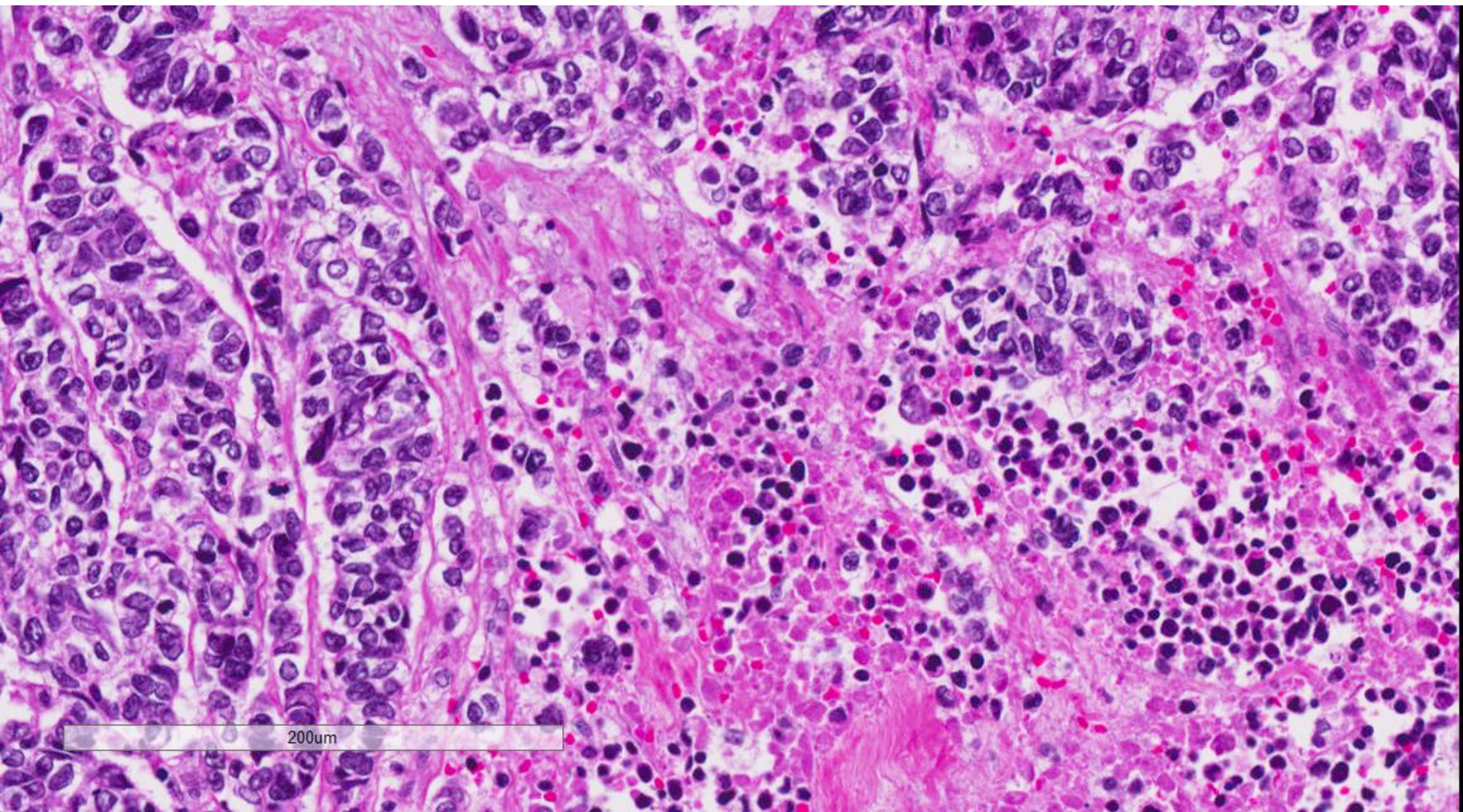


900um



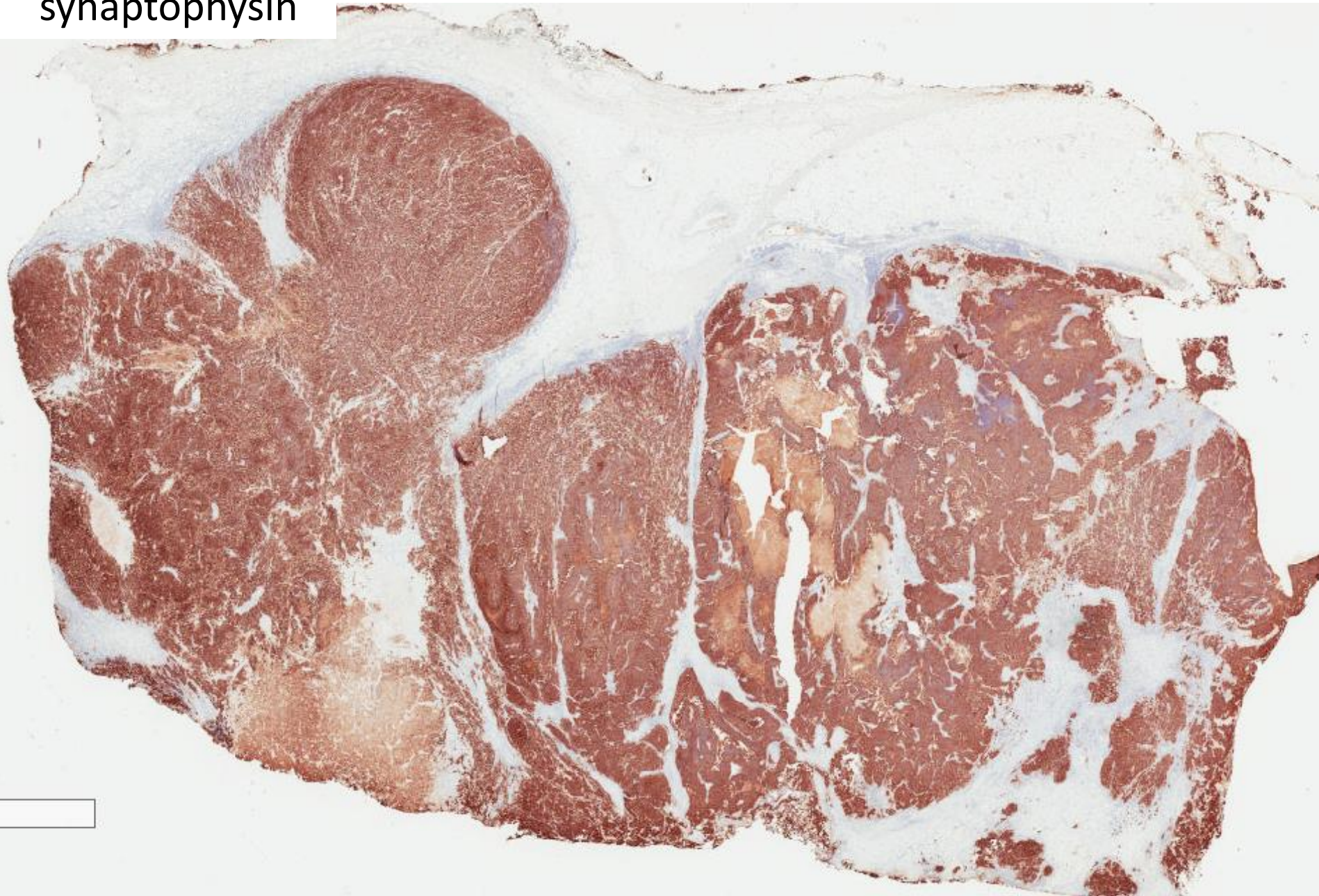


200um

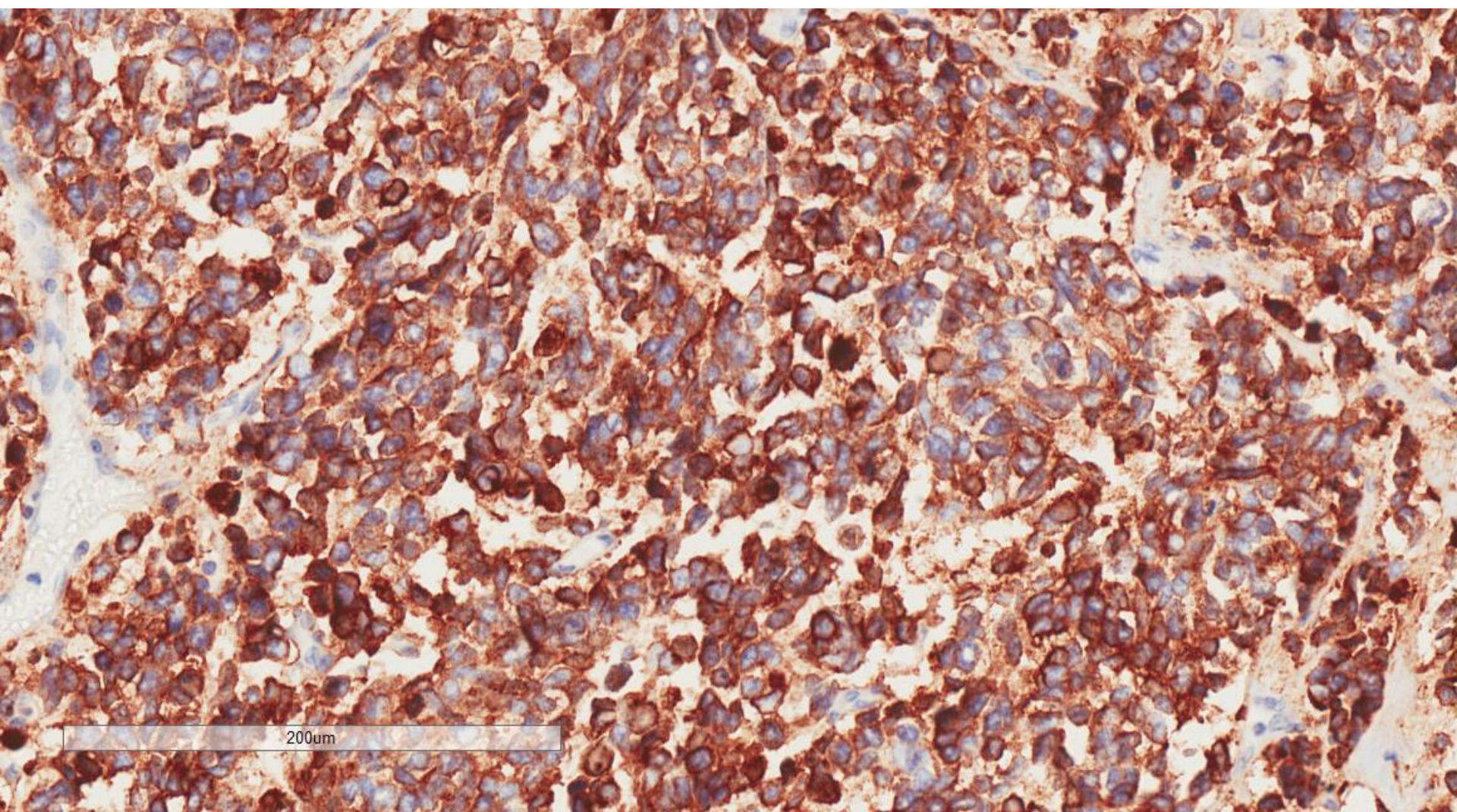


200um

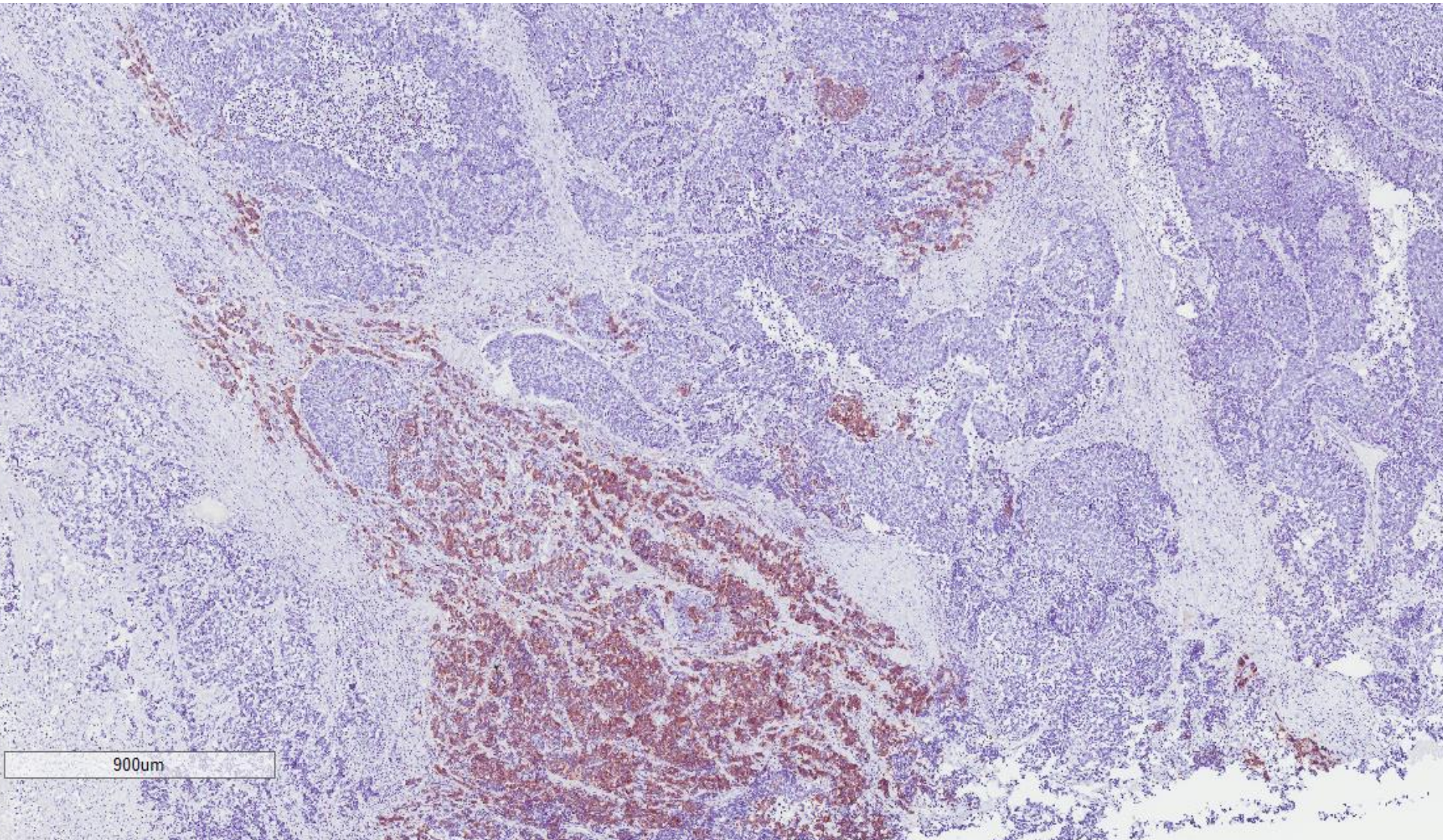
synaptophysin



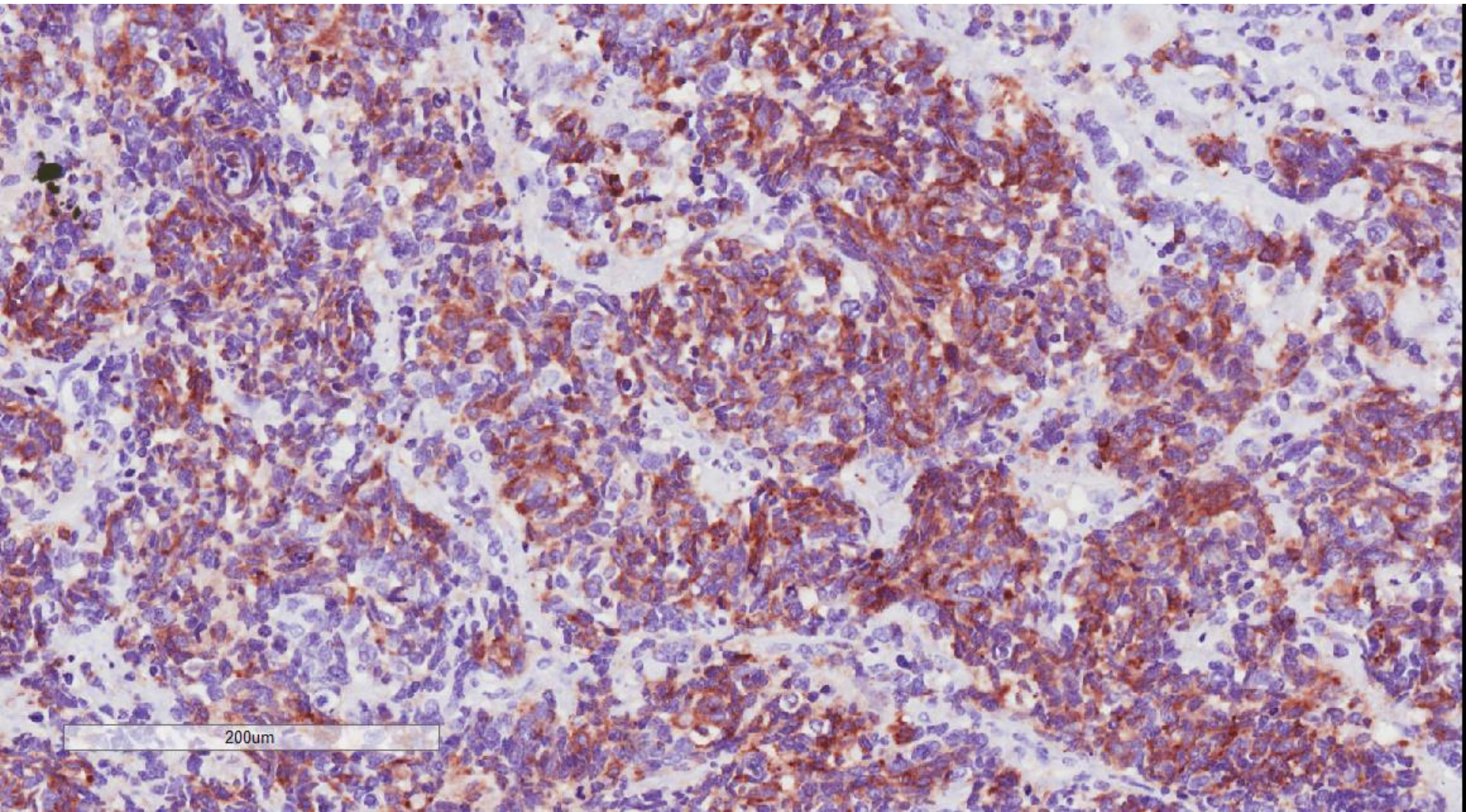
synaptophysin



chromogranin



chromogranin



Poorly differentiated neuroendocrine carcinoma, 5cm

ER negative, PR negative, cerbB2 negative

Carcinomas with neuroendocrine differentiation (WHO 2012)

- Exhibit morphological features similar to those of neuroendocrine tumours of the gastrointestinal tract and of the lung.
- All tumours express neuroendocrine markers to a greater or a lesser degree.
- Other invasive breast carcinomas of no special type (NST), and some special variants, may show neuroendocrine differentiation.

Carcinomas with neuroendocrine differentiation (WHO 2012)

- Neuroendocrine tumour, well differentiated.
- Neuroendocrine tumour, poorly differentiated.
- Invasive breast carcinoma with neuroendocrine differentiation.

Carcinomas with neuroendocrine differentiation (WHO 2012)

- Represent < 1% of breast carcinomas.
- Most patients are in the sixth or seventh decades of life.
- True incidence is uncertain, since neuroendocrine markers are not routinely used on breast tumours with solid, alveolar and nested patterns of growth.
- Neuroendocrine differentiation as determined by histochemical and immunohistochemical analysis occurs more frequently (up to 30%) in invasive carcinoma NST and other special types, particularly mucinous carcinomas.

Carcinomas with neuroendocrine differentiation: prognosis

- Impact of neuroendocrine differentiation on prognosis is controversial.
- *Miremadi A et al. Histopathology 2002 Mar;40(3):215-22: Neuroendocrine differentiation can be identified in a subset (10-18%) of human breast carcinomas. No relationship to established prognostic factors or patient outcome.*
- *Kwon SY et al. Histopathology 2013 Oct 9 (epub): Breast cancer patients with neuroendocrine differentiation showed worse overall survival and disease-free survival than those without neuroendocrine differentiation.*
- *Watrowski R et al. Anticancer Res 2012 Nov;32(11):5079-82. Neuroendocrine carcinoma of the breast is characterized by high biological aggressiveness.*