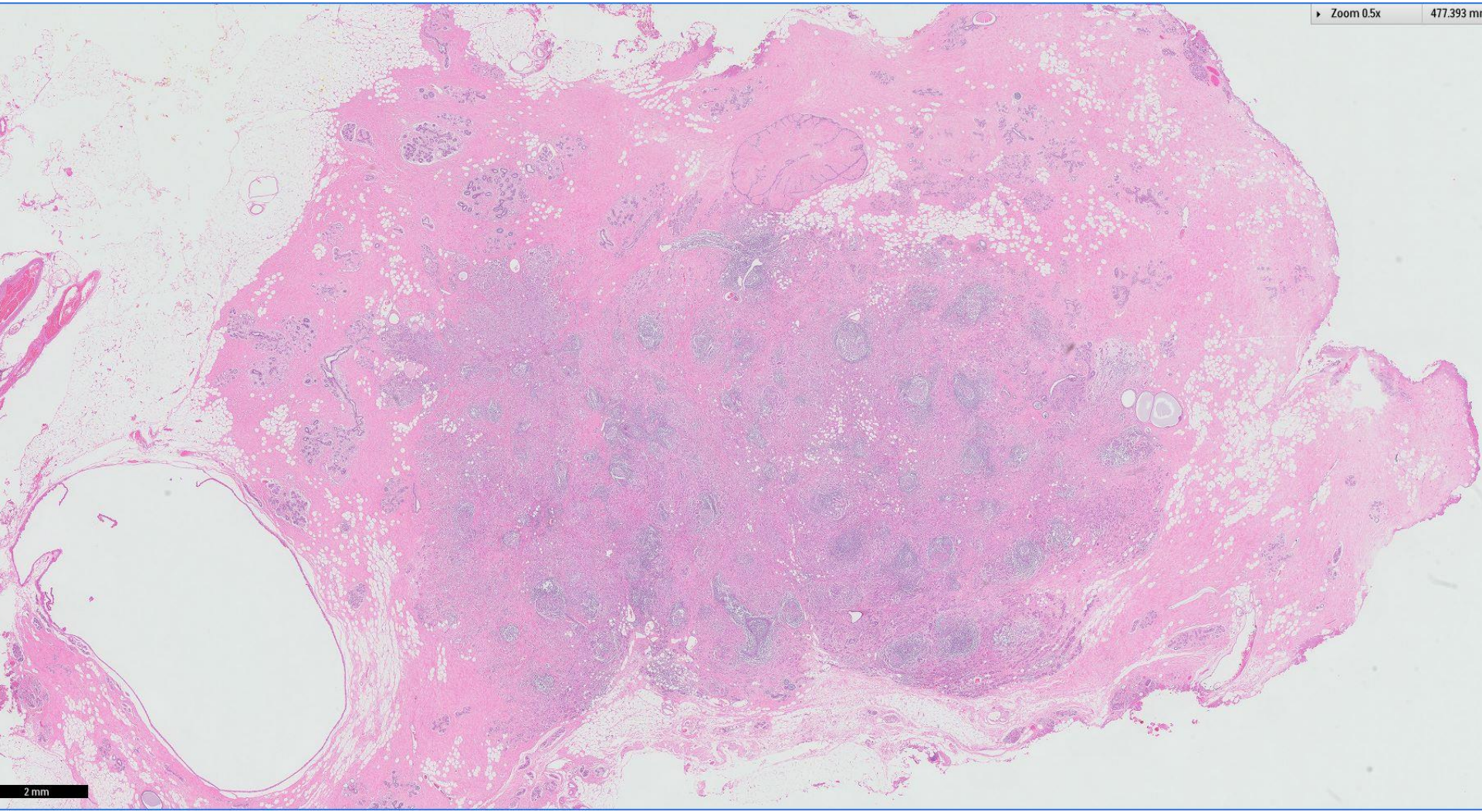


# Case 20

44 year old woman with a left breast lump.

Prior core biopsy was diagnosed as an atypical epithelial proliferation with query of a component of microglandular adenosis.

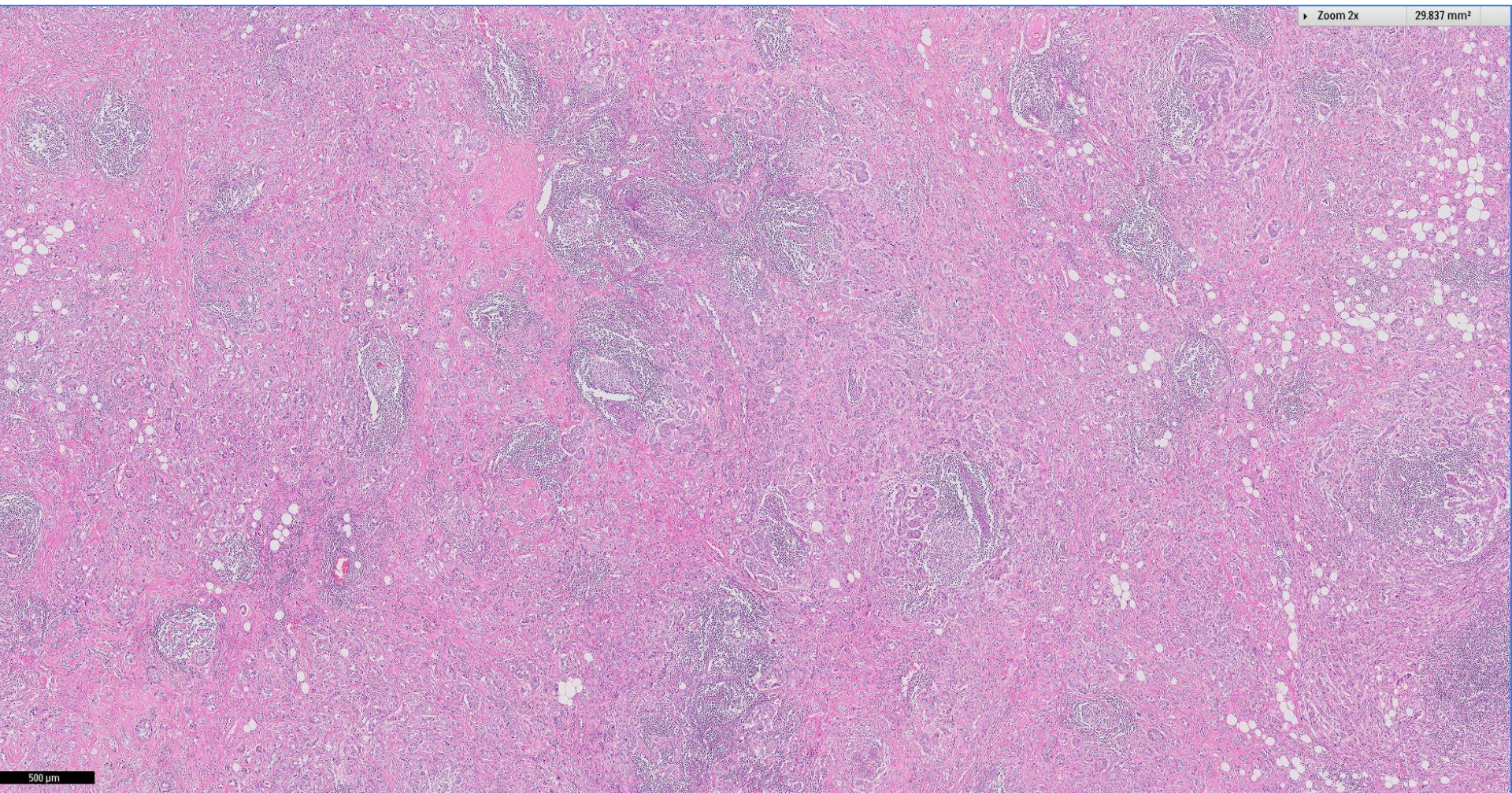




2 mm

Zoom 2x

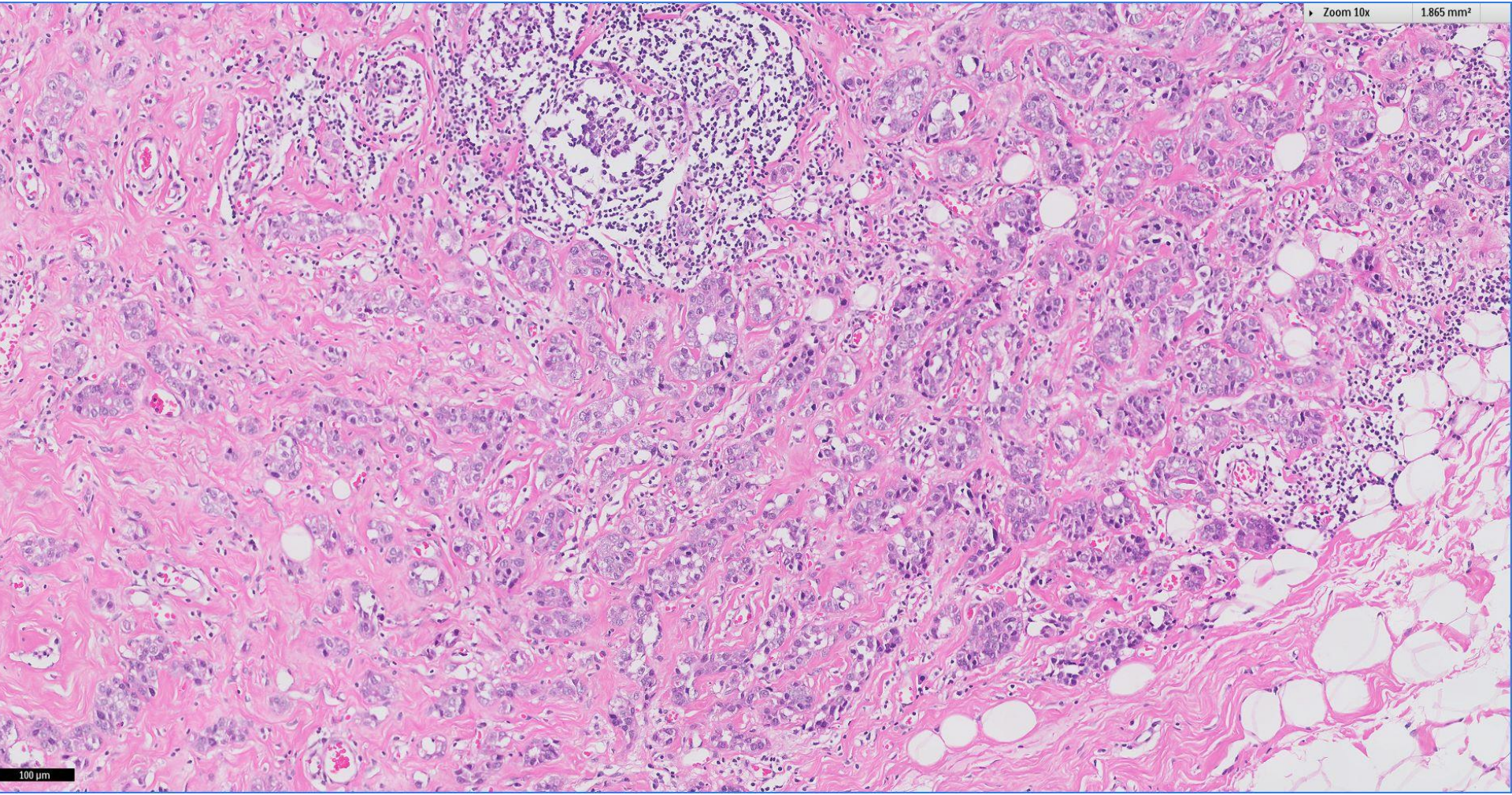
29.837 mm<sup>2</sup>



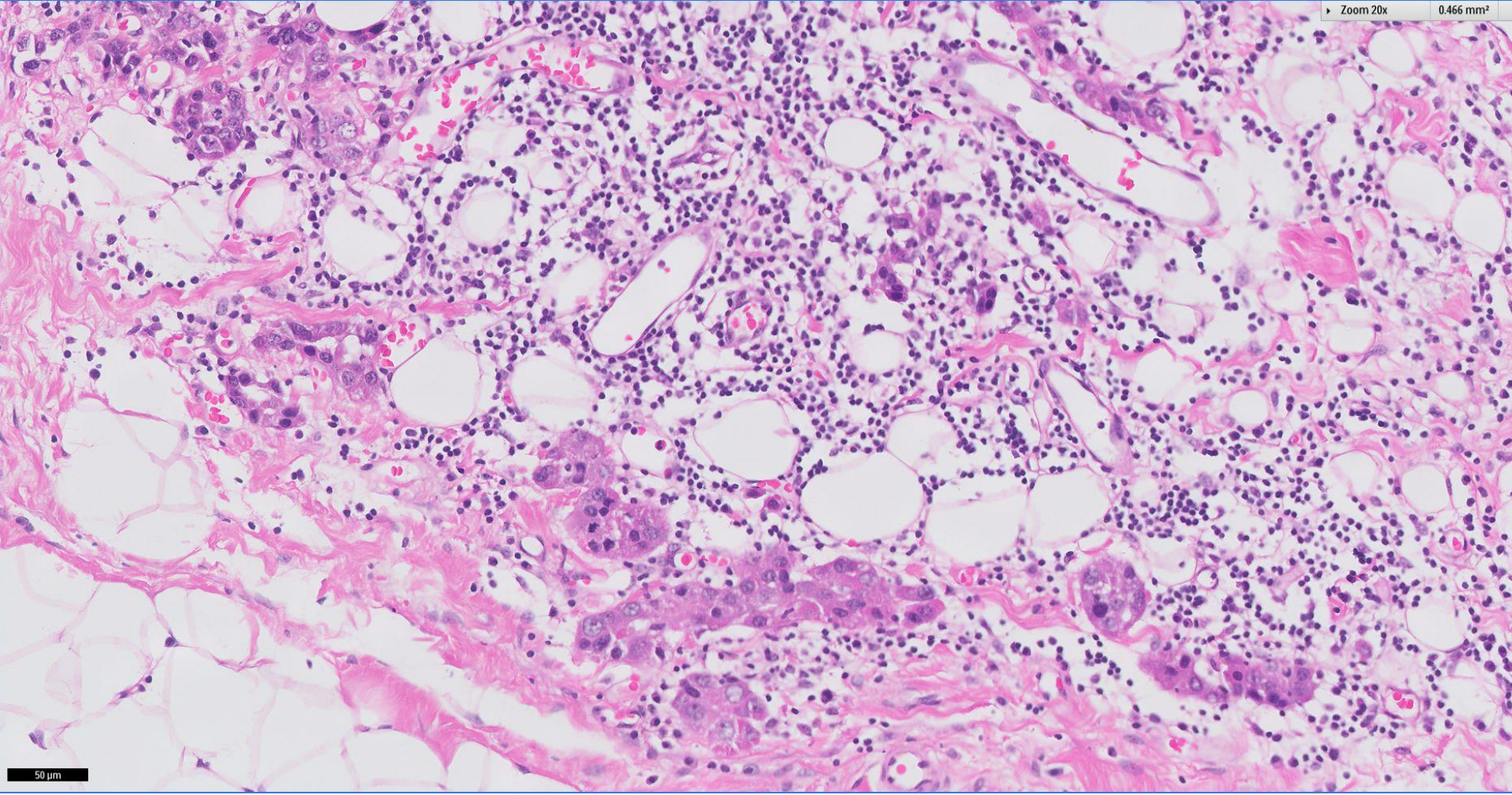
500 μm

Zoom 10x

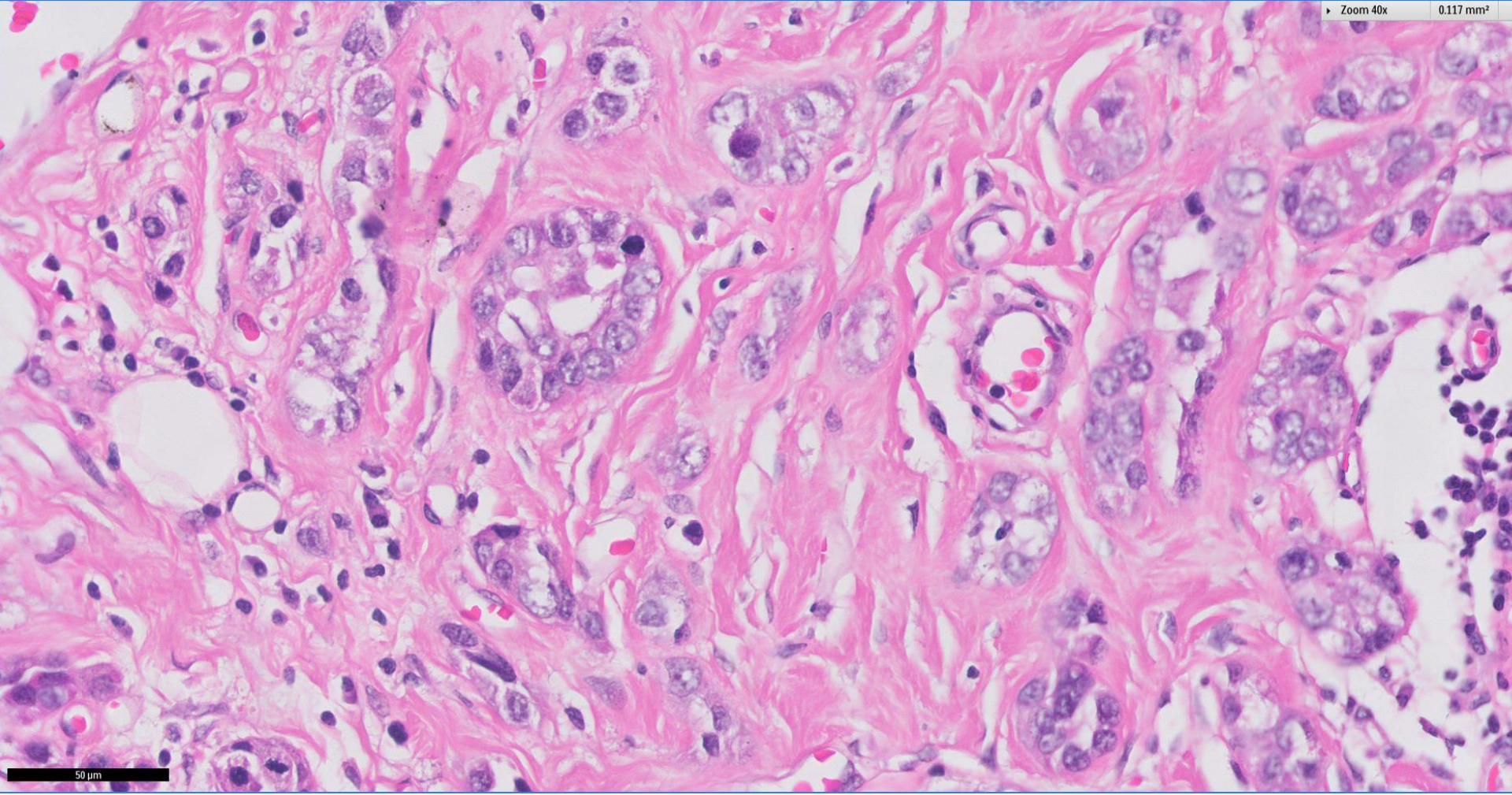
1.865 mm<sup>2</sup>



100 μm

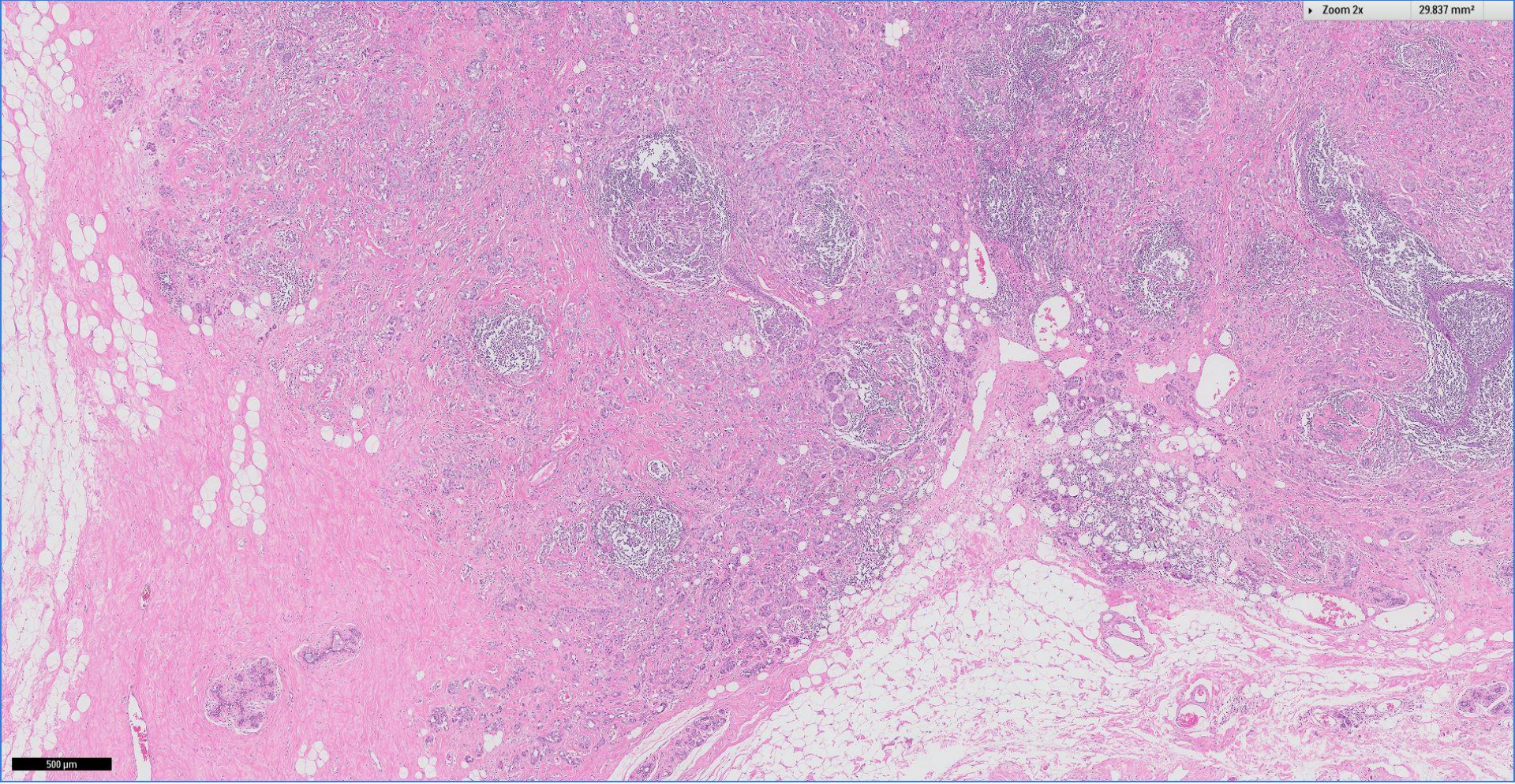


Zoom 40x 0.117 mm²

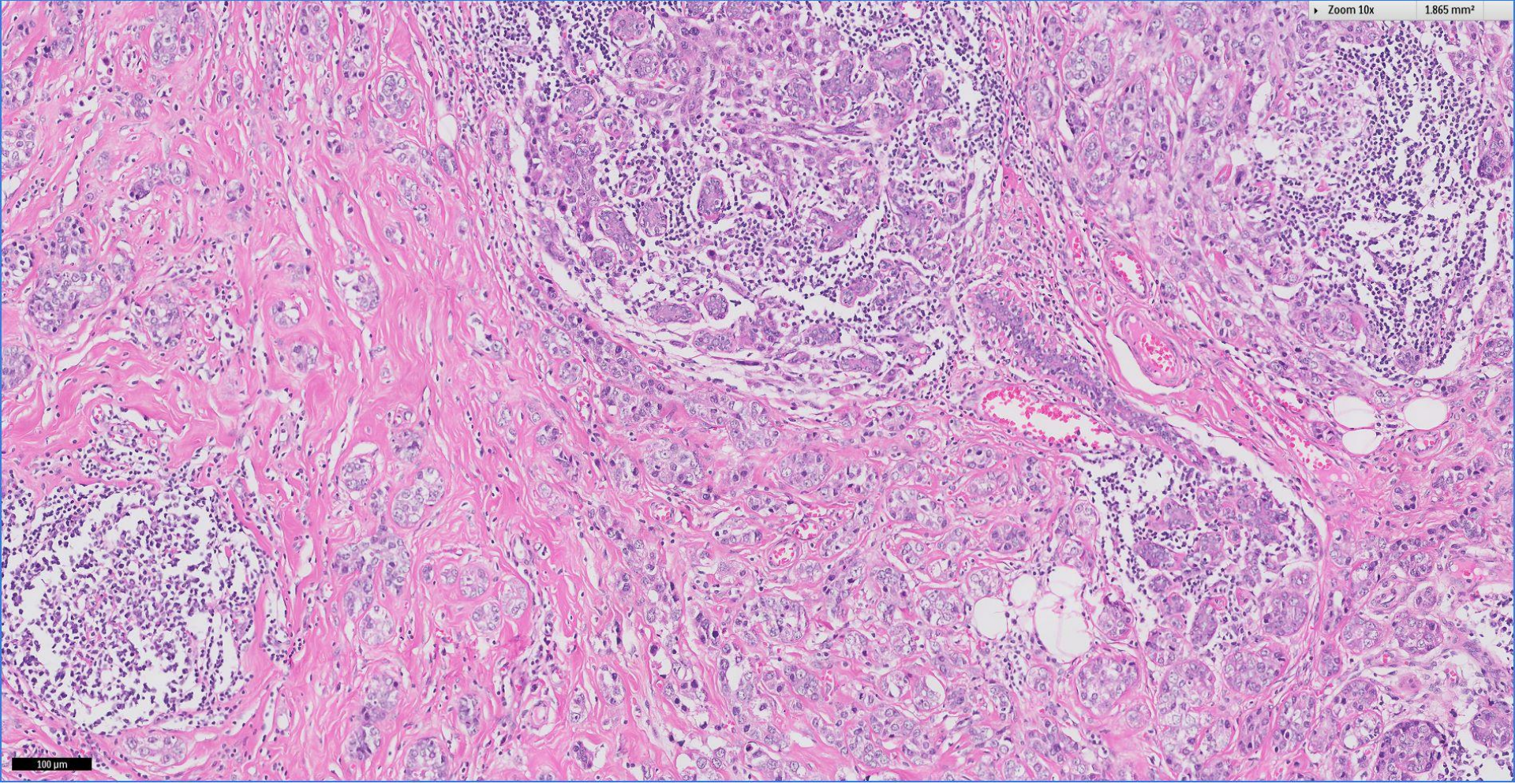


50 µm



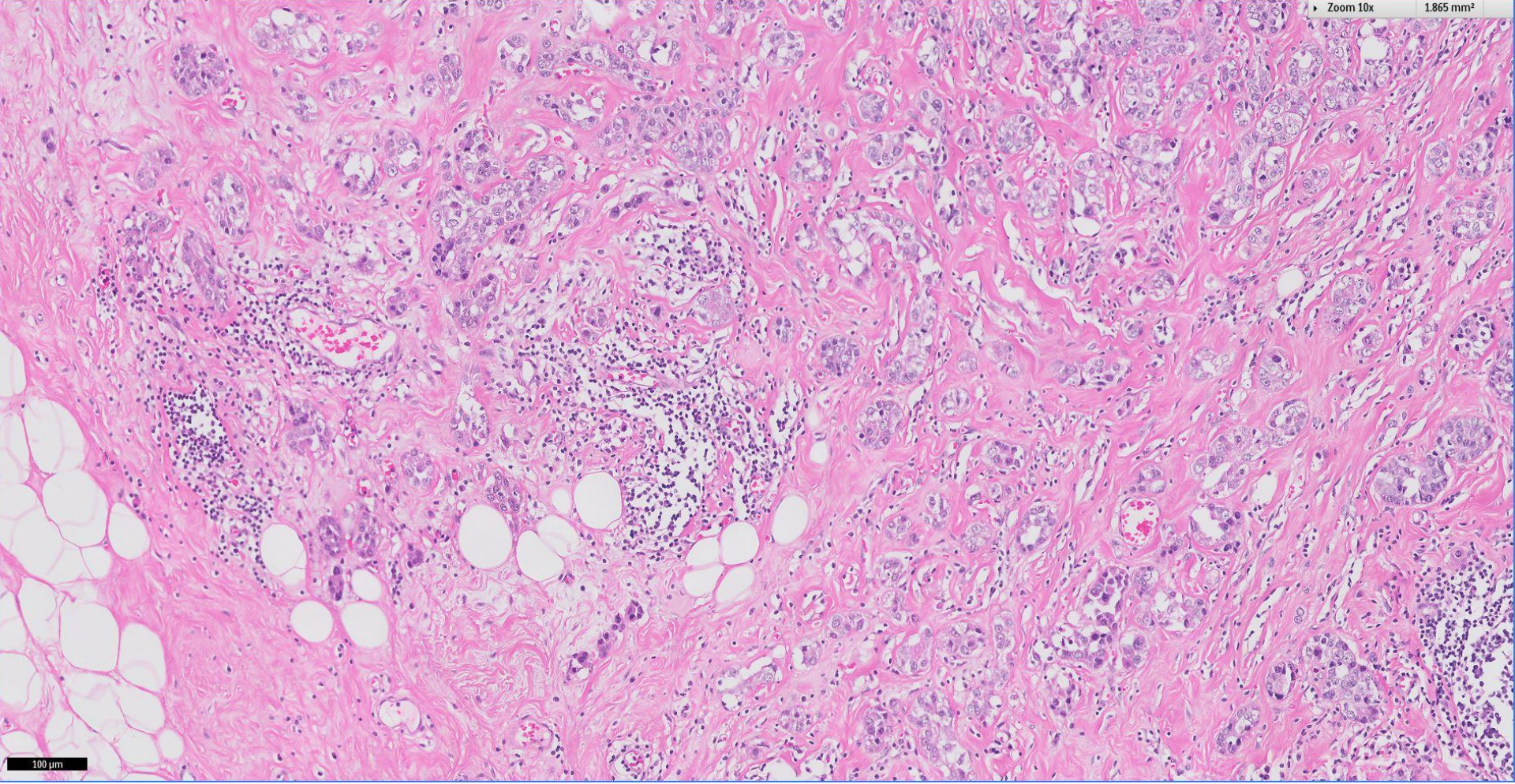






Zoom 10x

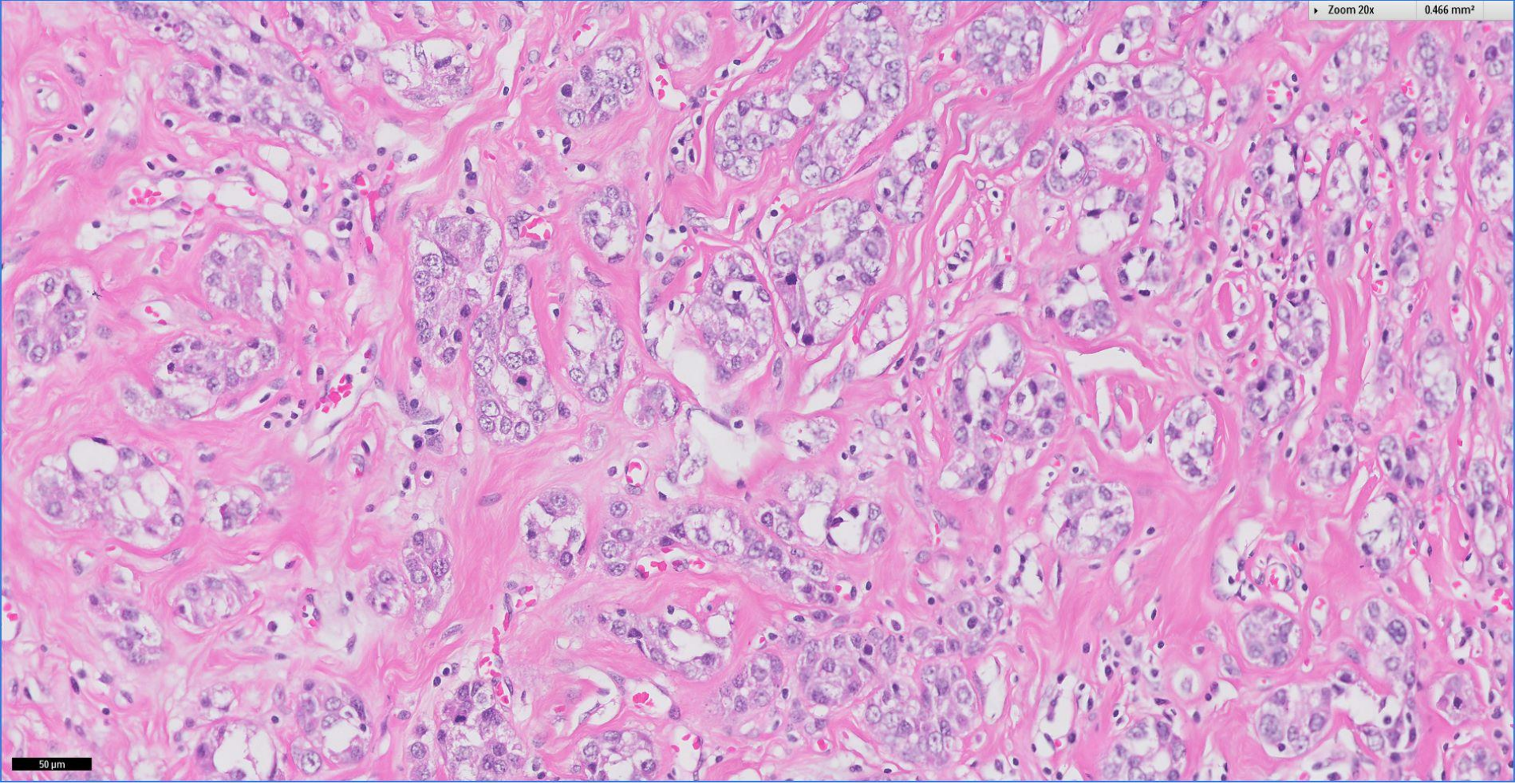
1.865 mm<sup>2</sup>



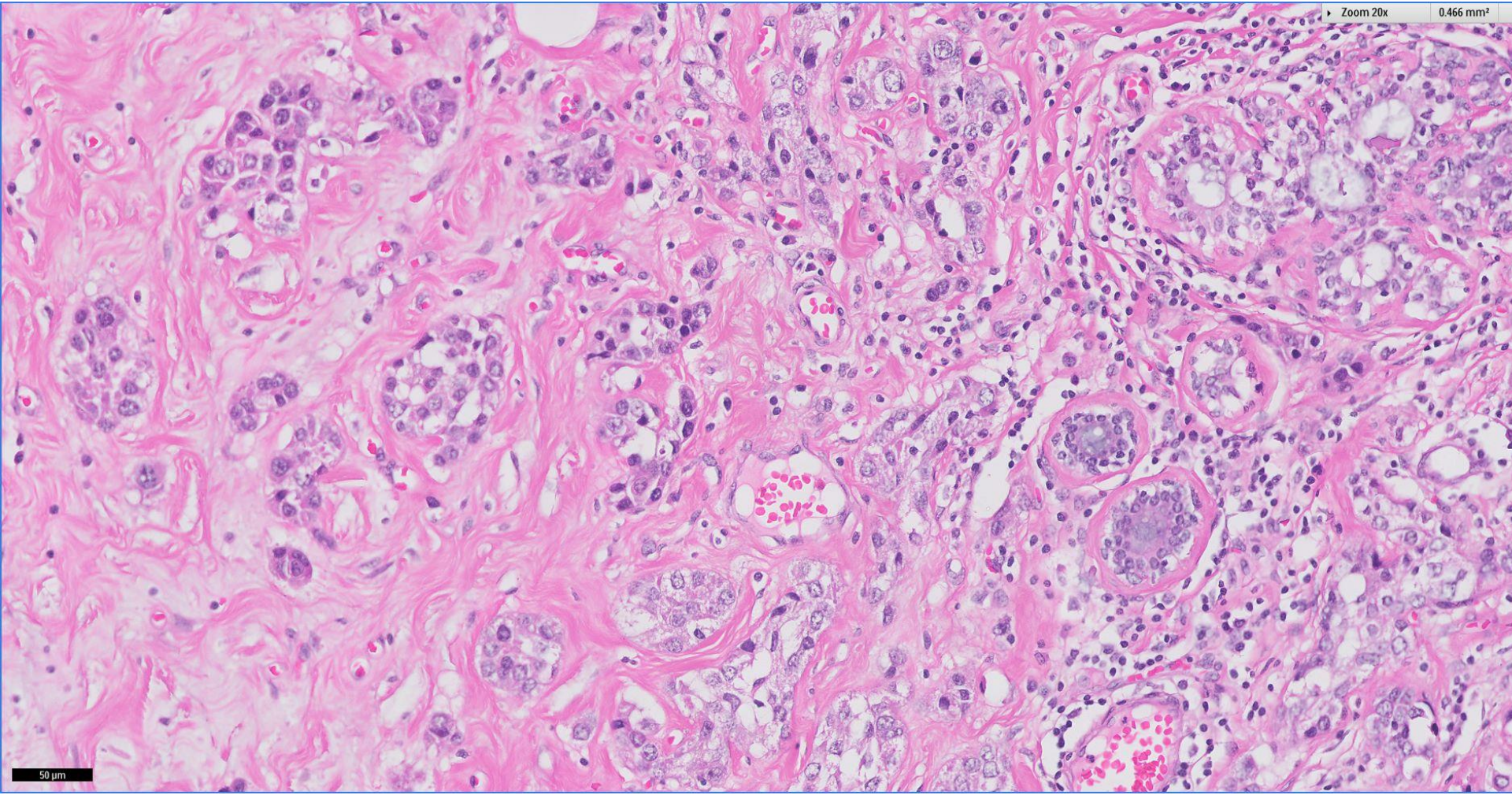
100  $\mu$ m

Zoom 20x

0.466 mm<sup>2</sup>

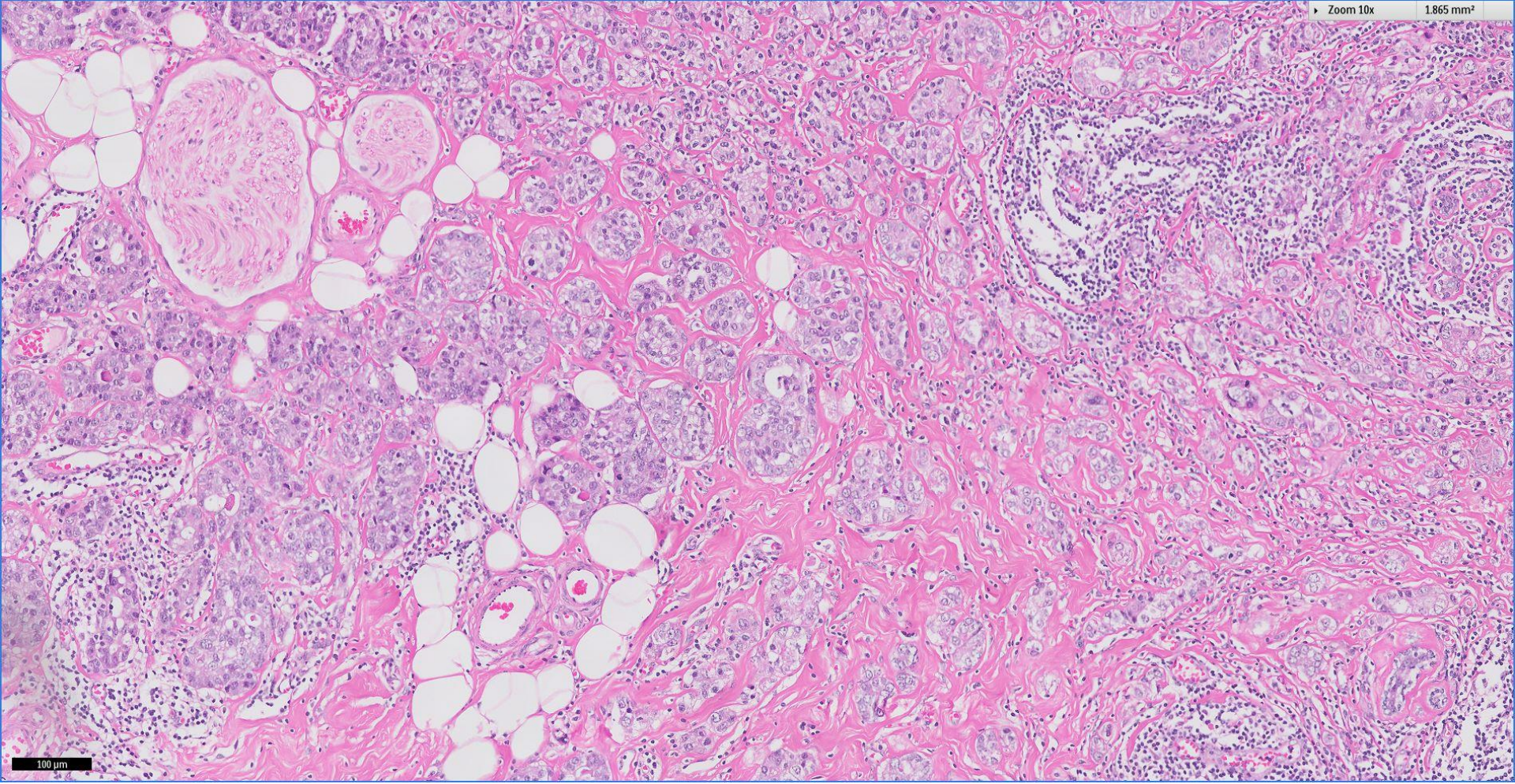


50 μm



Zoom 10x

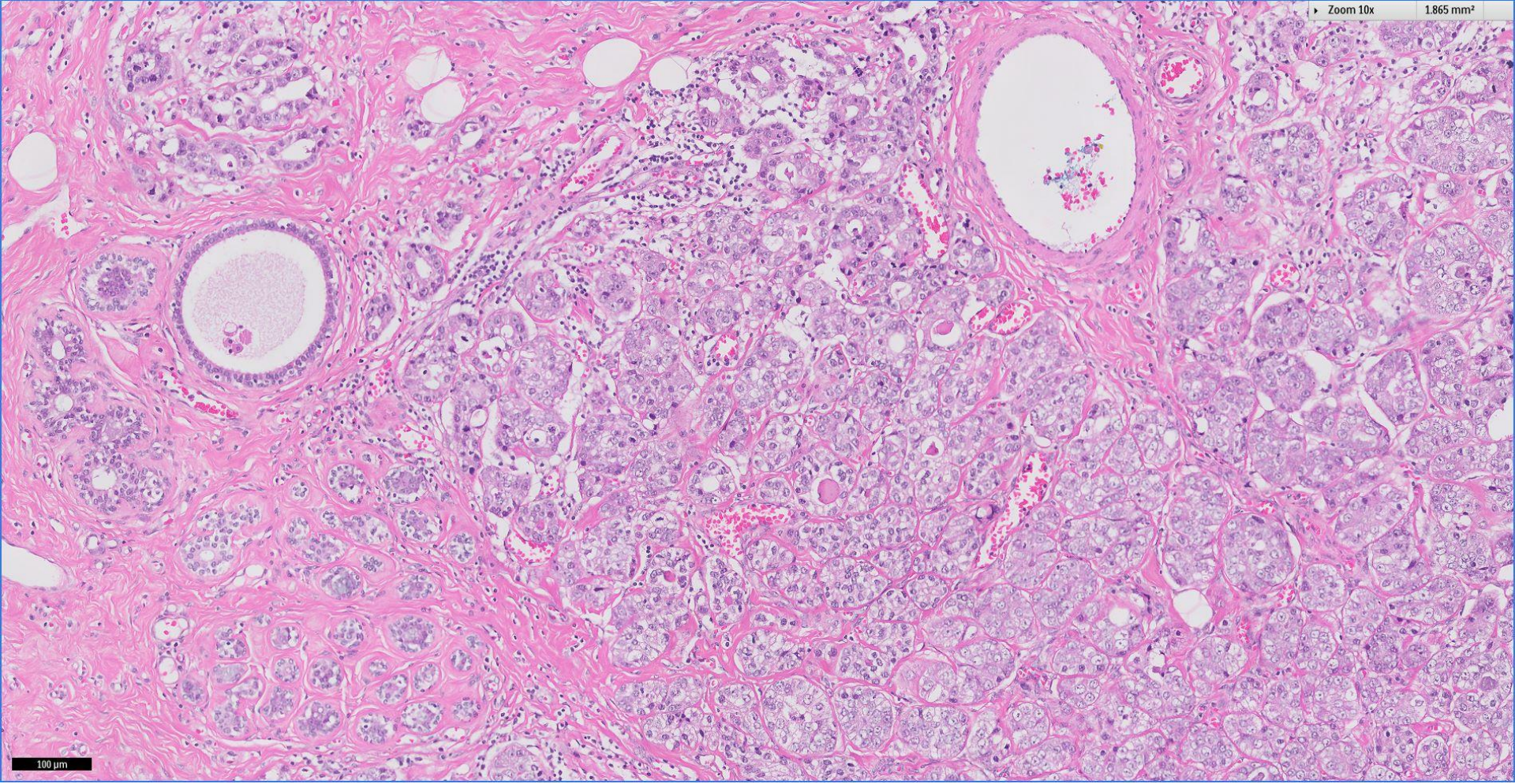
1.865 mm<sup>2</sup>



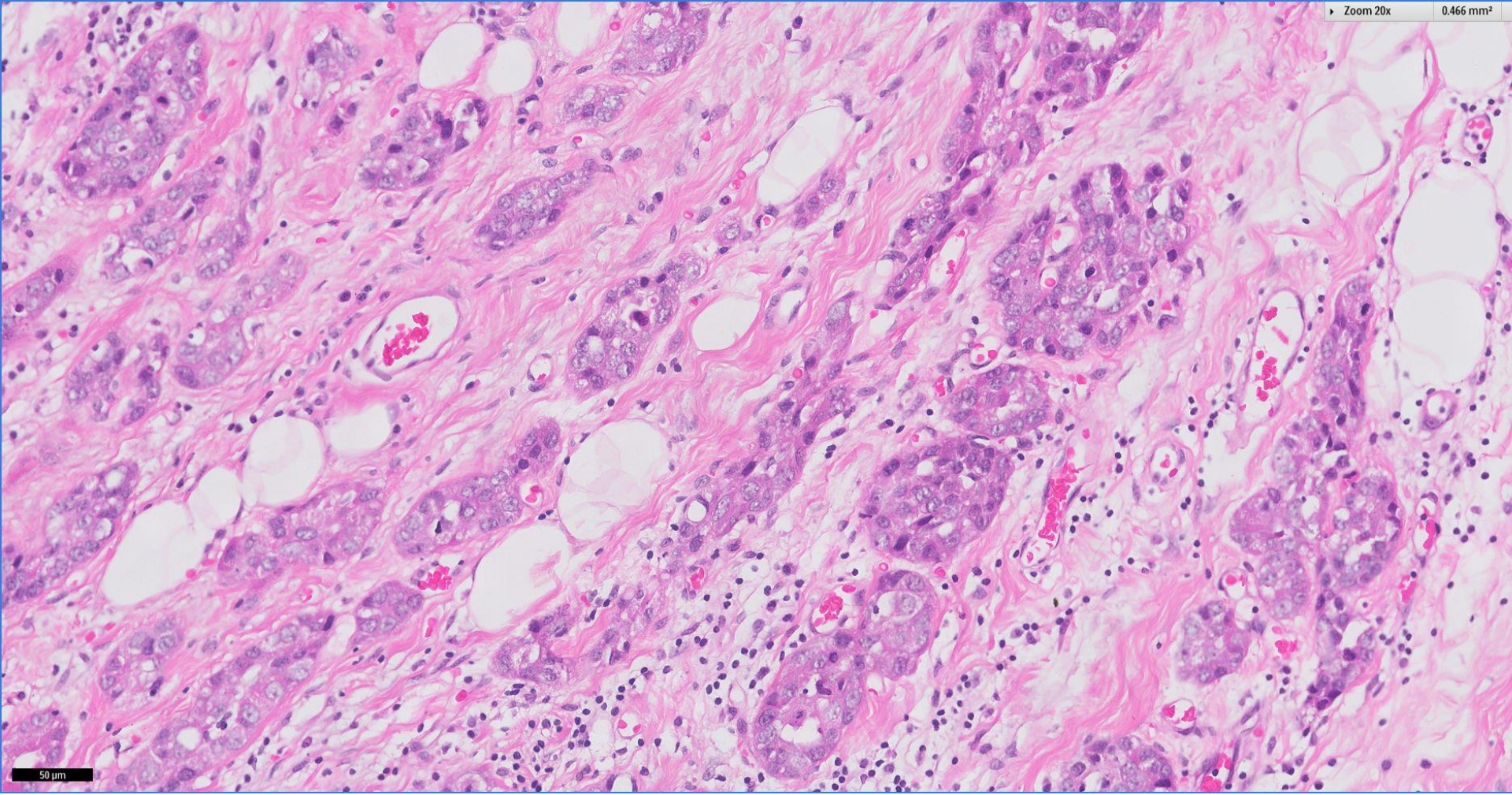
100 μm

Zoom 10x

1.865 mm<sup>2</sup>

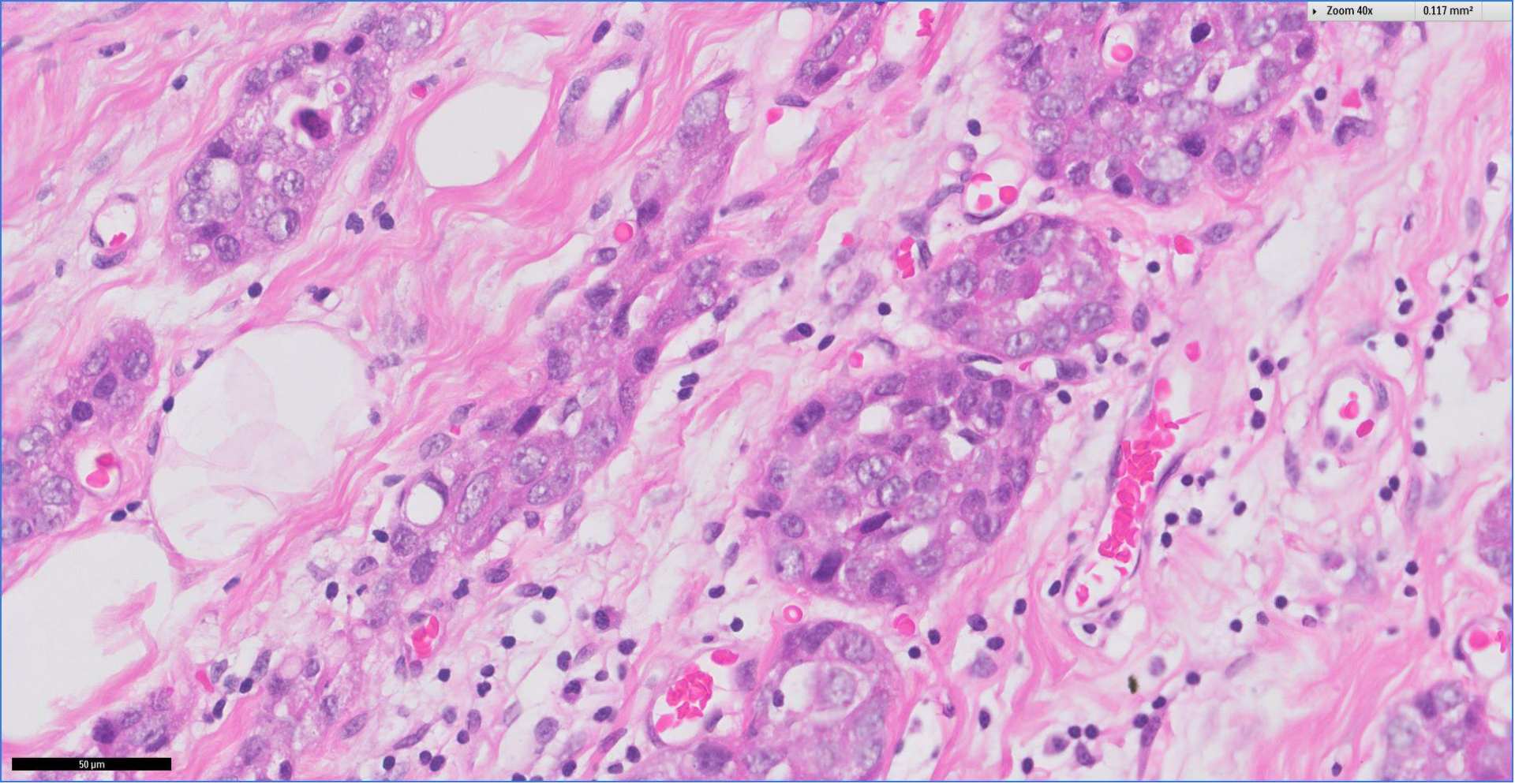


100 μm



Zoom 40x

0.117 mm<sup>2</sup>



50 μm

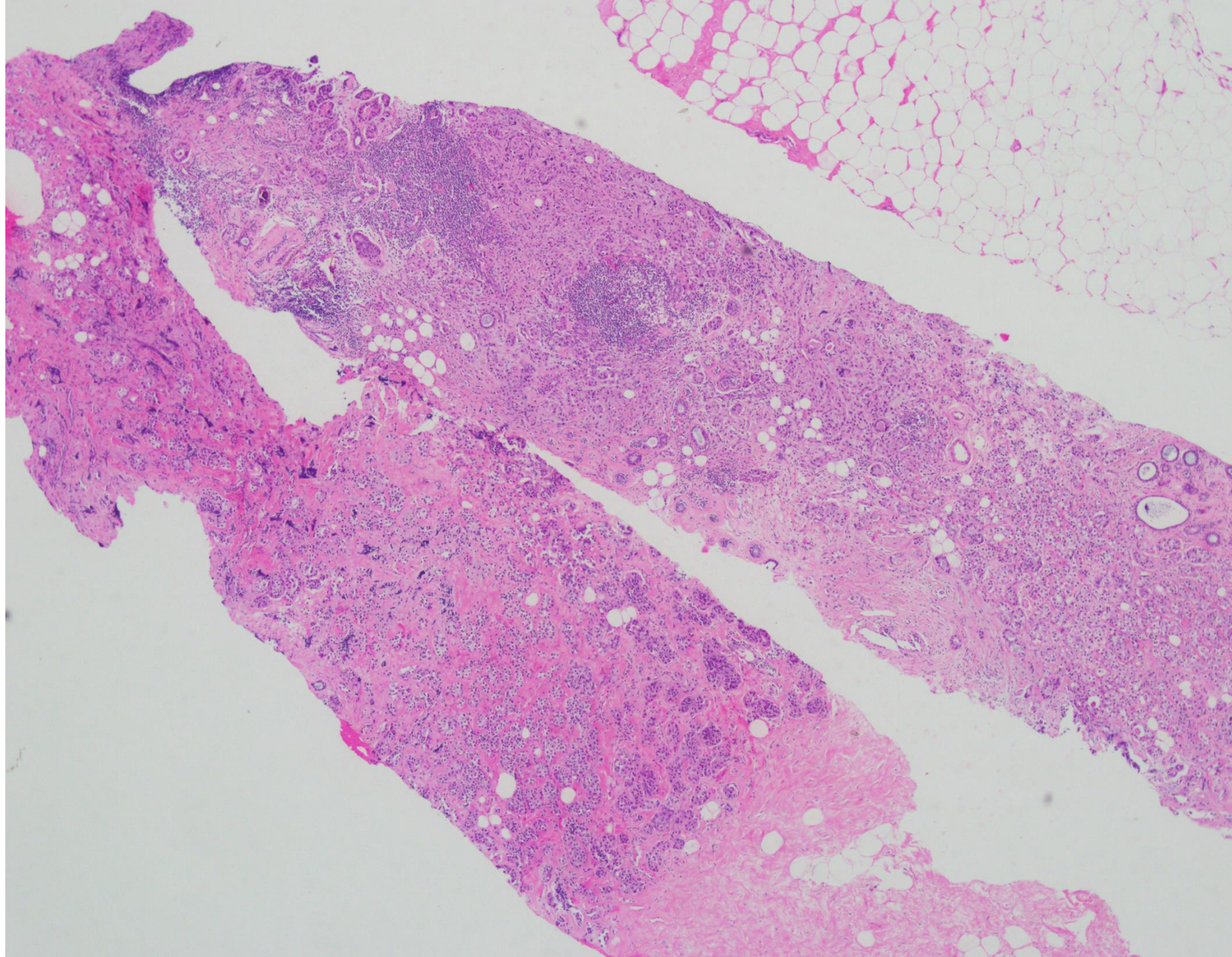


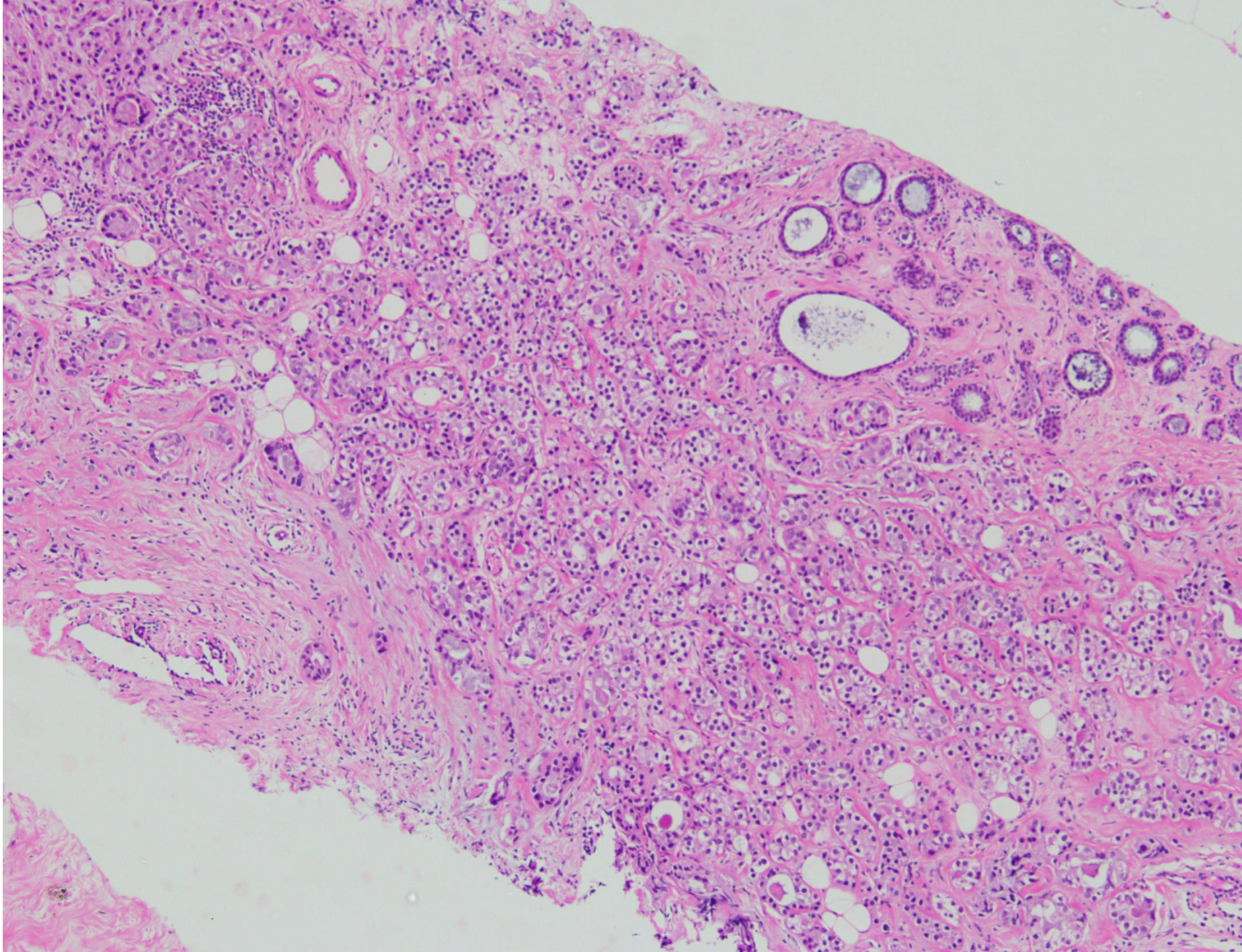
ER negative, PR negative, cerbB2 negative  
(triple negative)

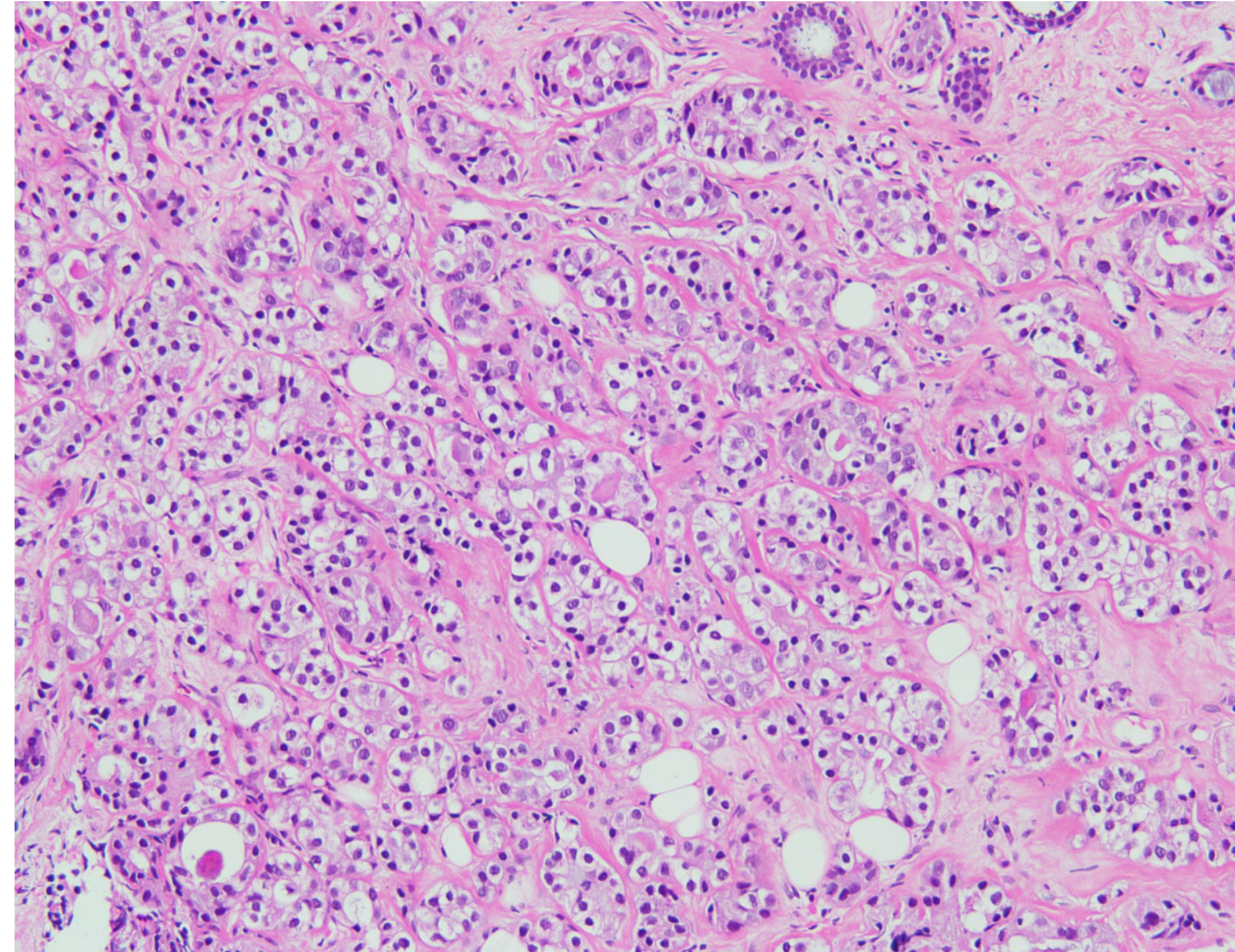


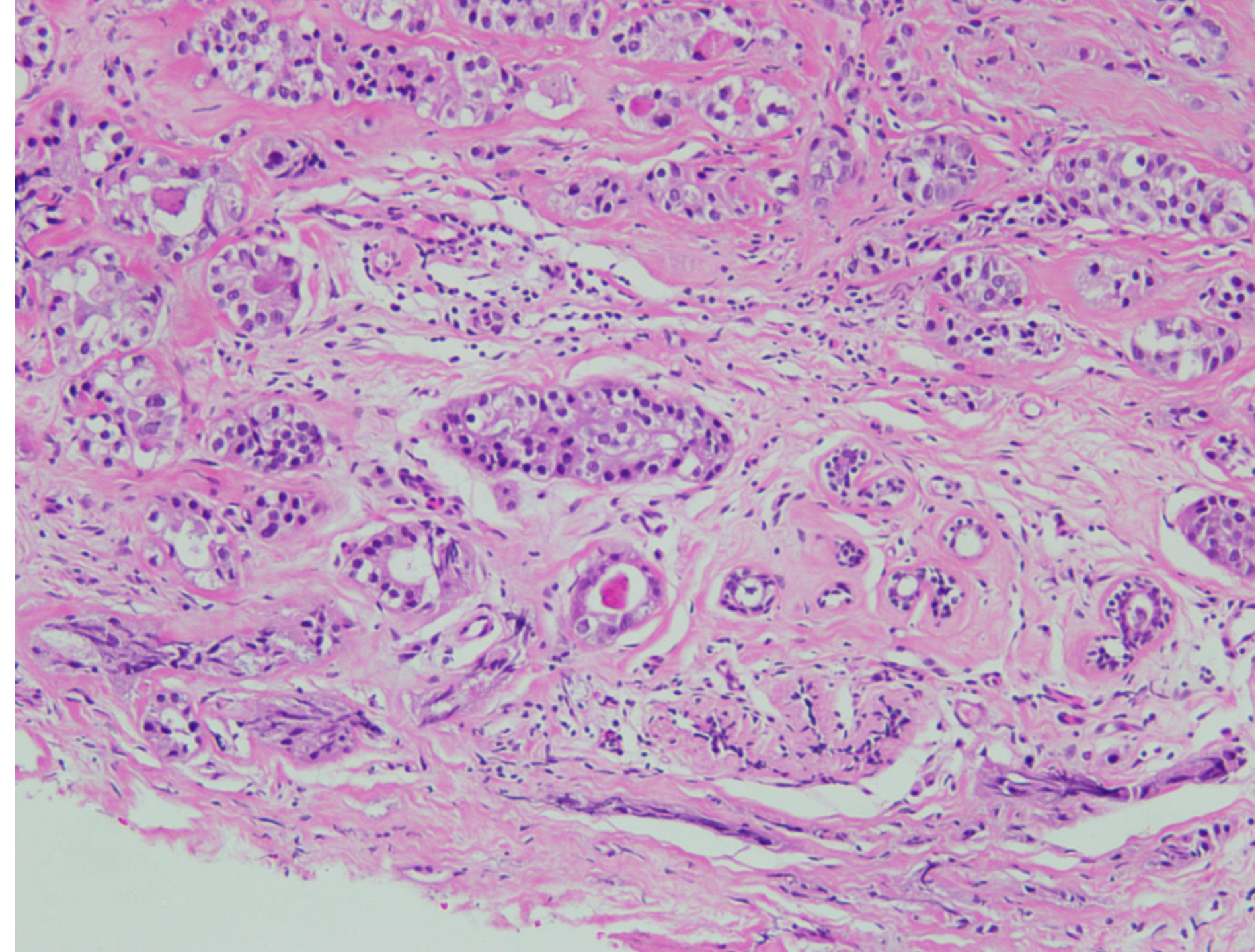
# Prior core biopsy



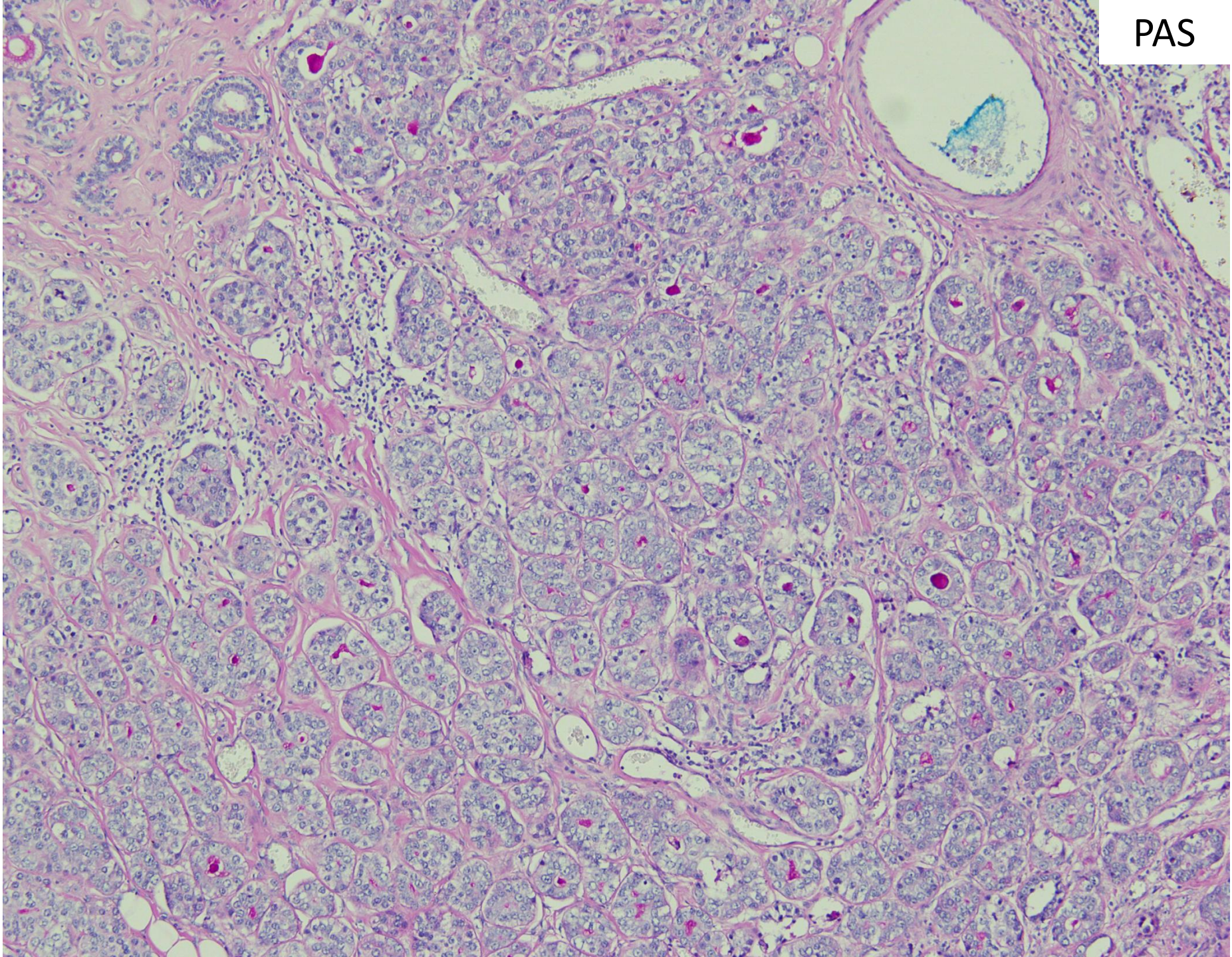




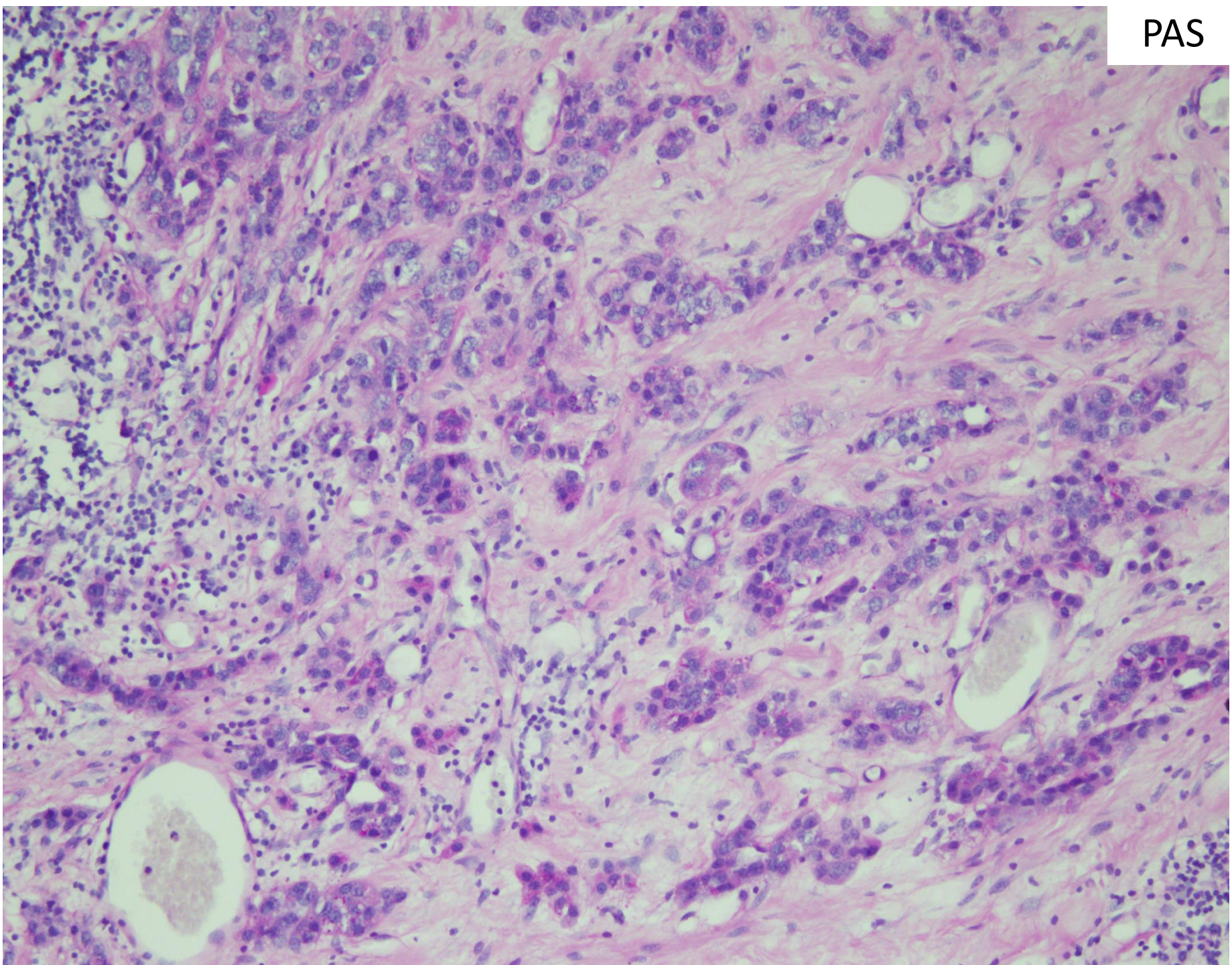




PAS

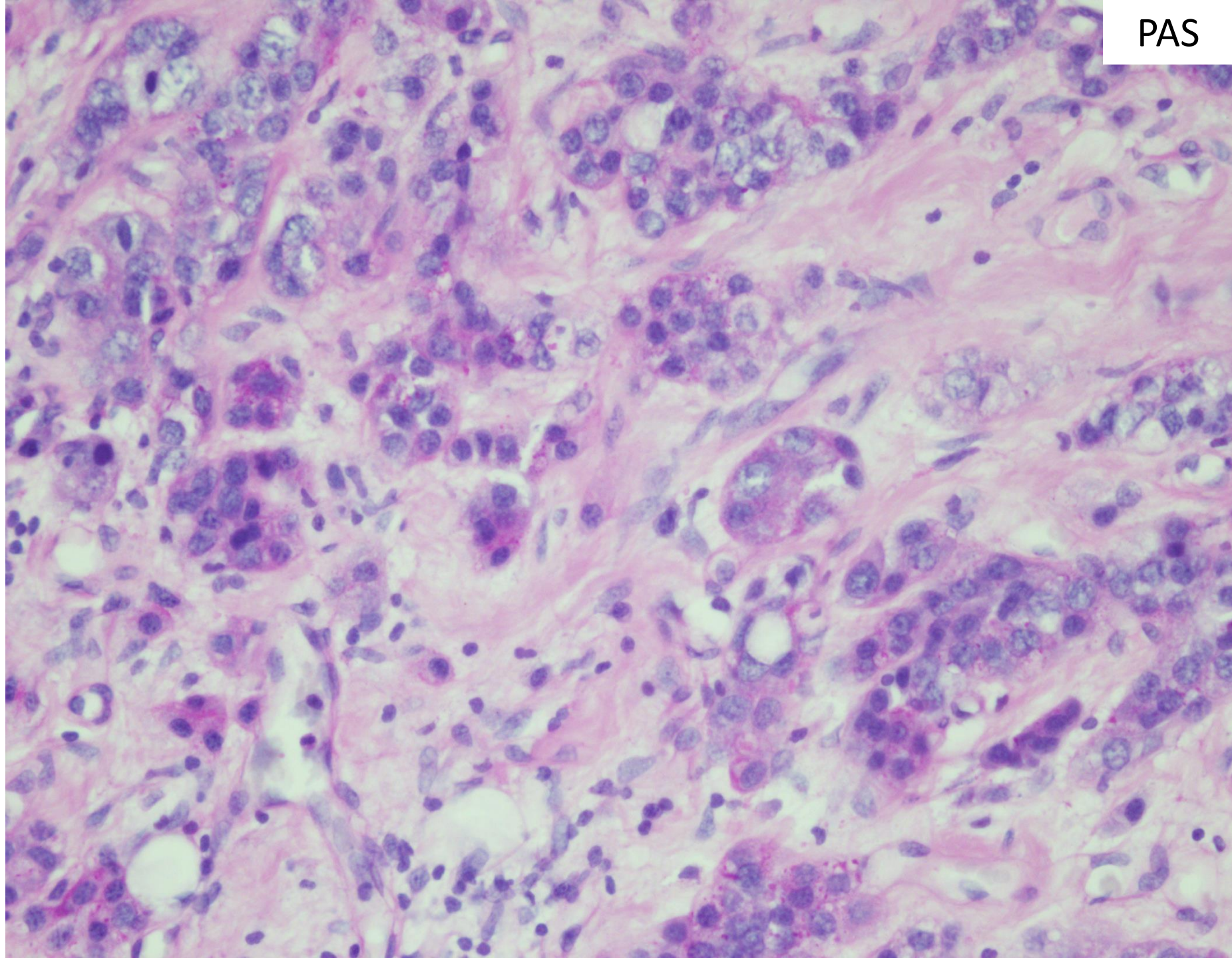


PAS

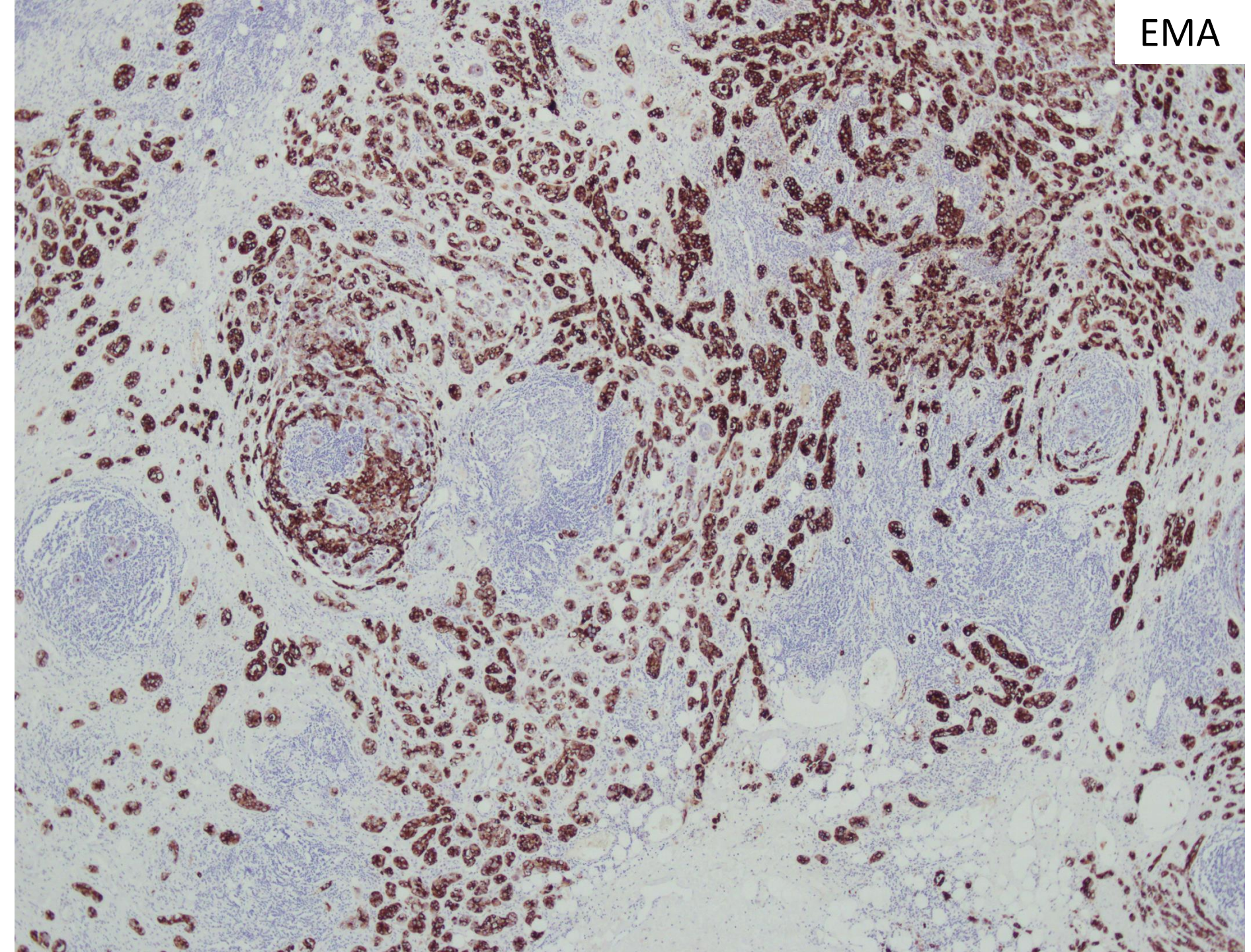




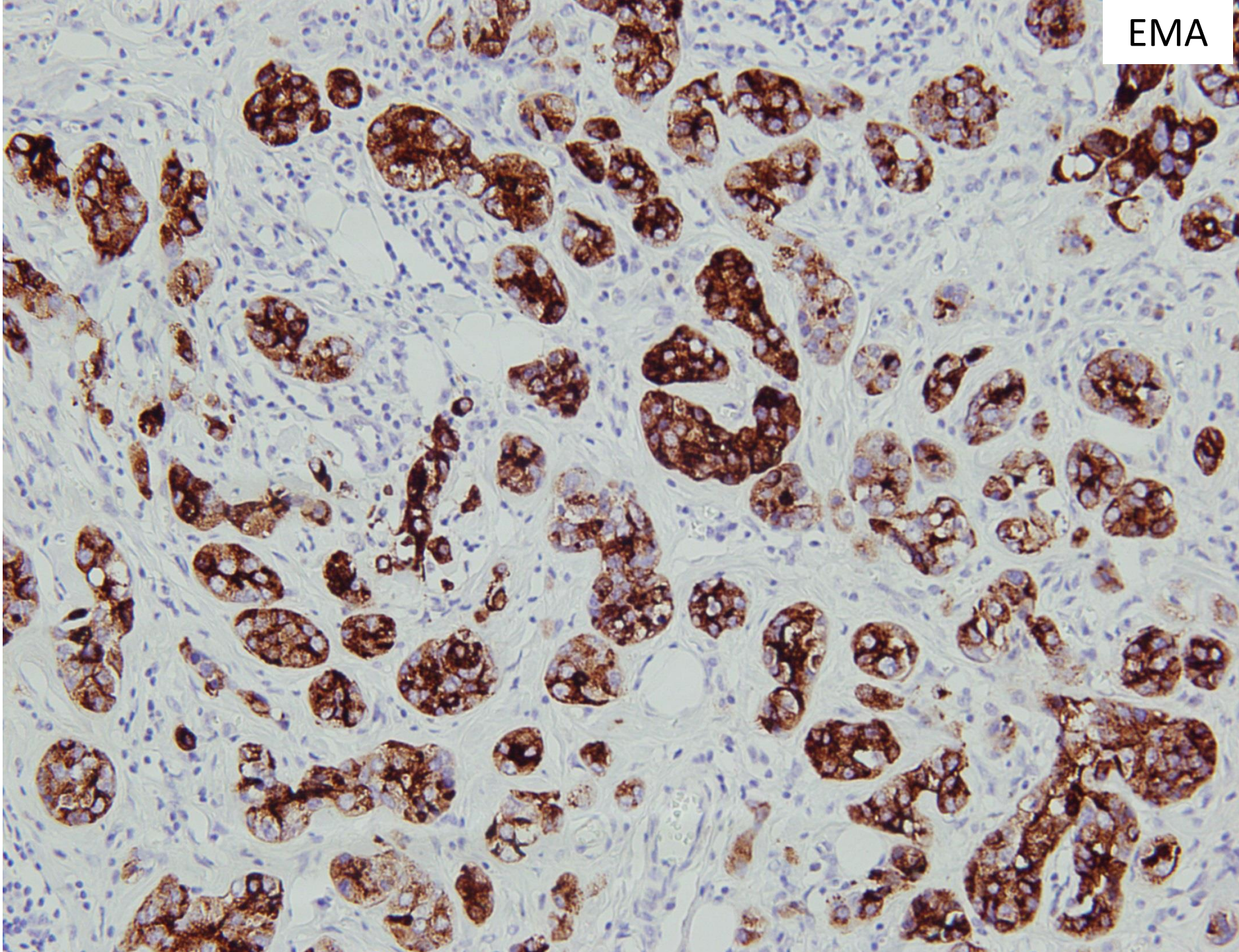
PAS



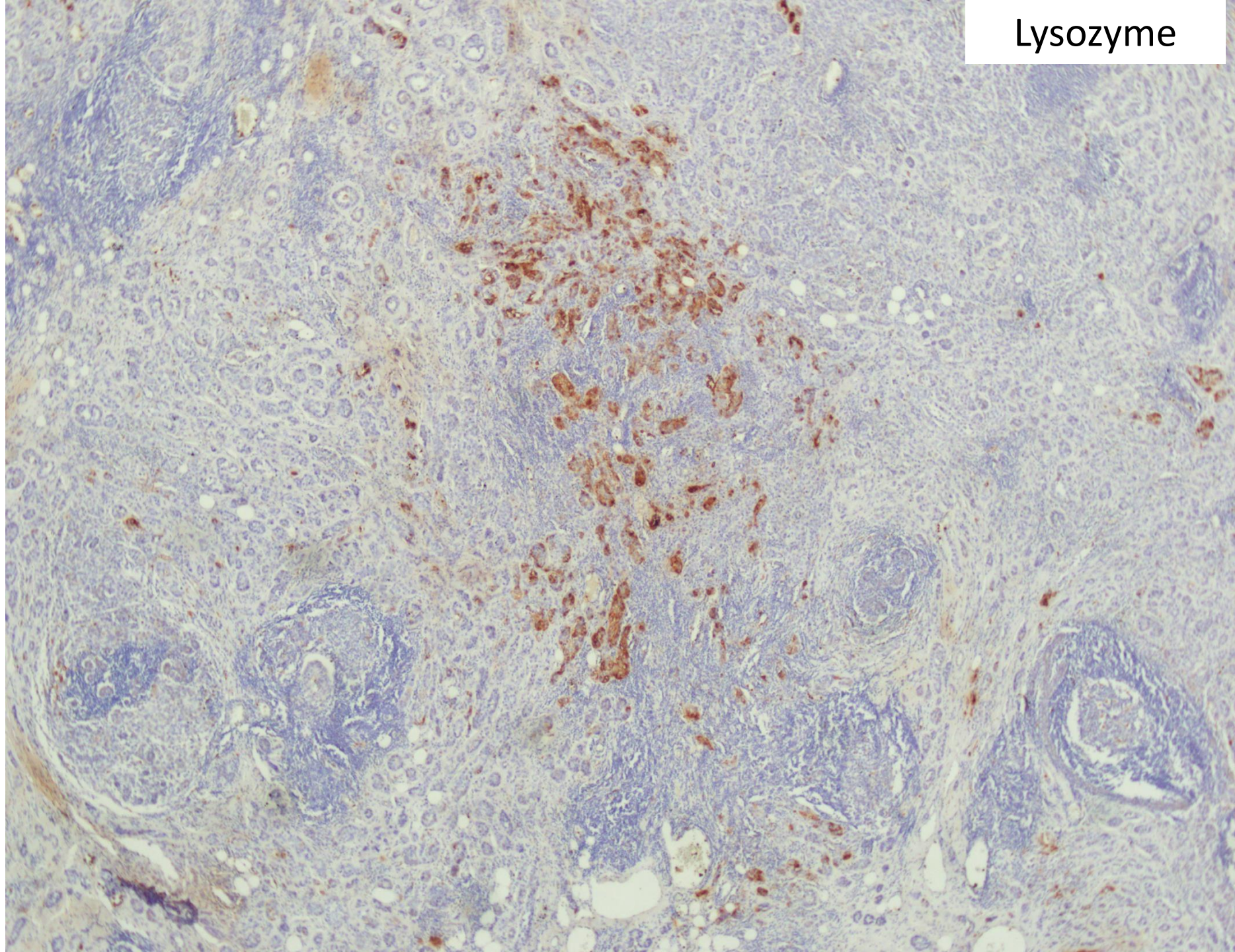
EMA



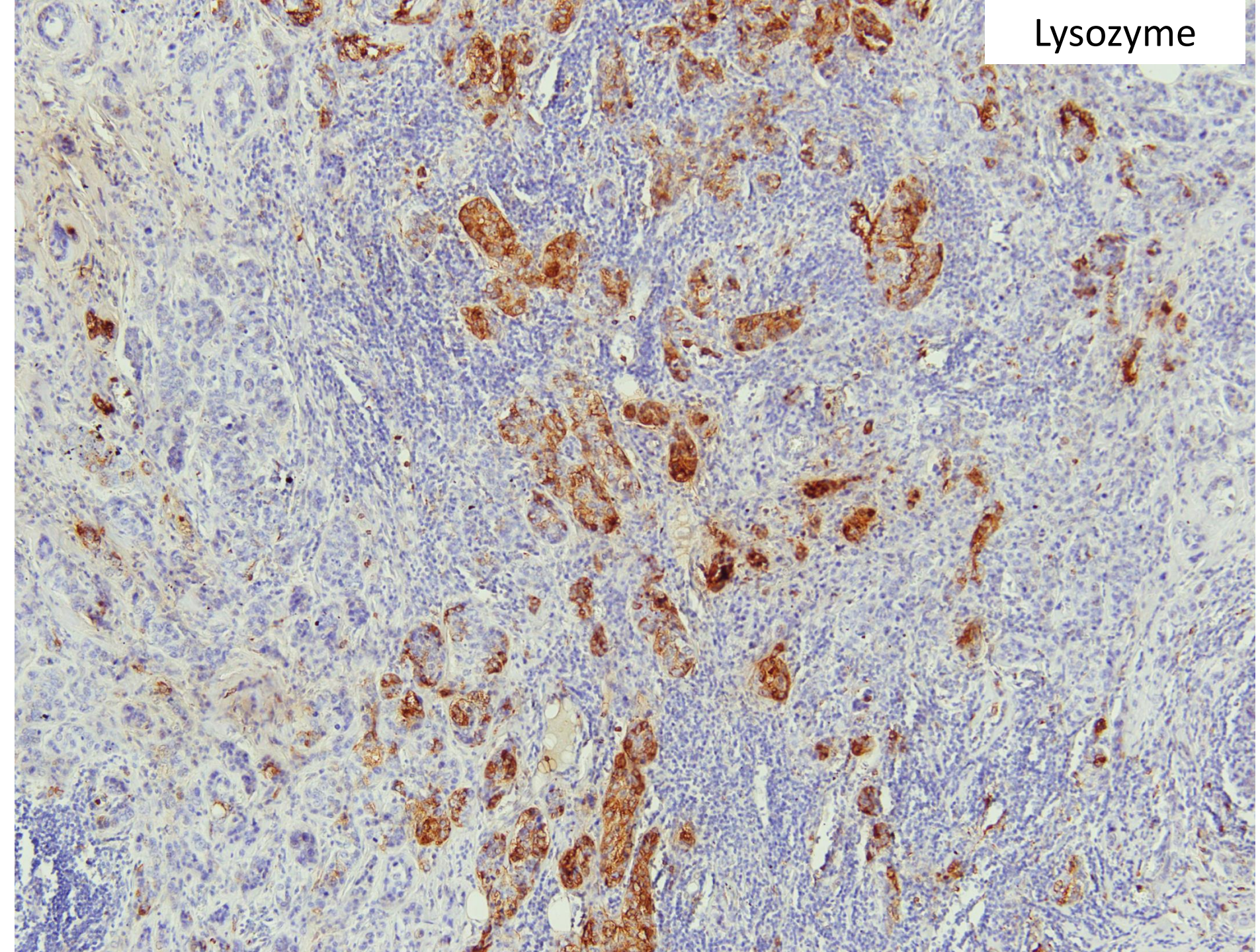
EMA



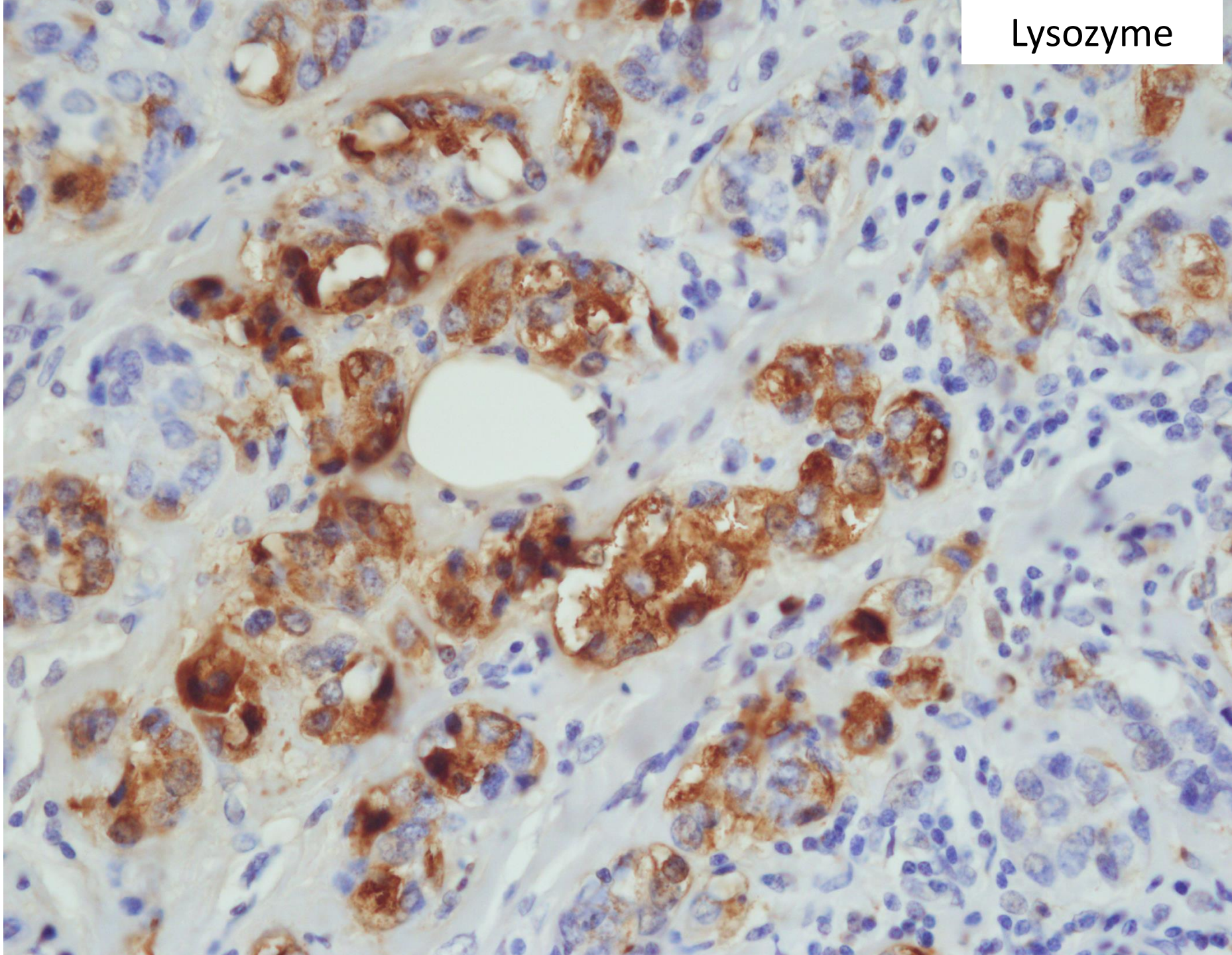
Lysozyme



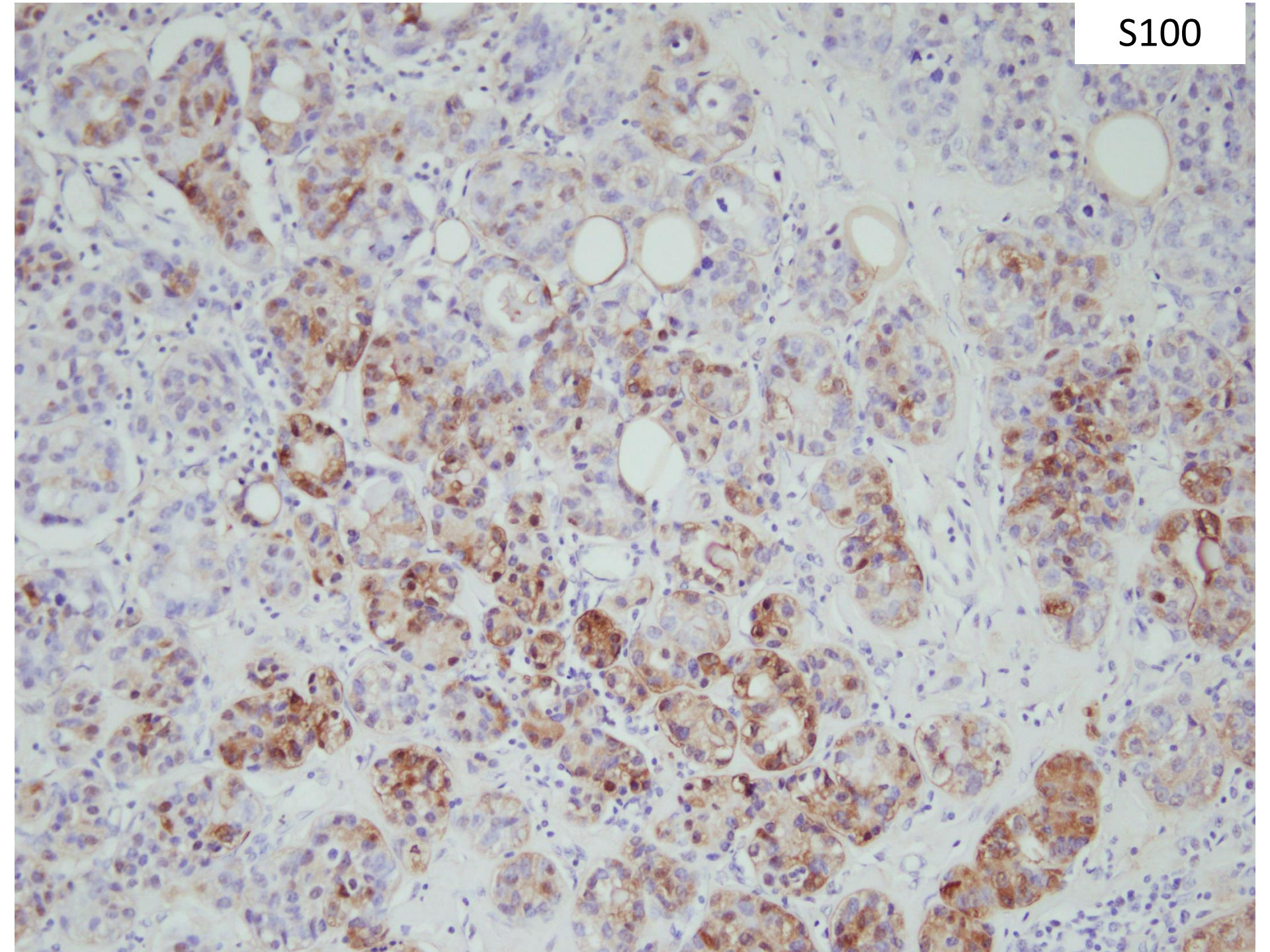
Lysozyme



Lysozyme



S100



Left breast lump:

*Acinic cell carcinoma*





# Acinic cell carcinoma

- A breast carcinoma similar to the acinic cell carcinoma of the parotid gland that shows (serous) differentiation with zymogen-type cytoplasmic granules.

*WHO 2012*



# Acinic cell carcinoma

- Rare tumour.
- True incidence is not known as studies on large series are lacking.
- First reported in 1996 by Roncaroli *et al* as the counterpart of similar tumours of the salivary gland.
- No more than 20 additional cases have been reported since.
- Affects women aged between 35 and 80 years (mean, 56 years).



# Acinic cell carcinoma

- Varies from well-differentiated and easily recognizable to structurally solid (dedifferentiated).
- Some show microcystic and microglandular areas, or solid nests with comedo-like necrosis and a rim of microglandular structures at the periphery.
- Tumour cells have irregular round to ovoid nuclei, evident single nucleoli and abundant cytoplasm, which is usually granular, amphophilic to eosinophilic.
- Granules can be large and coarse, bright red in colour, reminiscent of those seen in Paneth cells and ultrastructurally similar to zymogen-like granules.
- Cells with clear “hypernephroid” cytoplasm may predominate.
- Mitoses can number up to 15 per 10 high-power fields.



# Acinic cell carcinoma

- Tumour cells express high levels of antichymotrypsin, salivary gland amylase, lysozyme, EMA and S100 protein.
- GCDFP-15 can be focally positive.
- Consistently negative for ER, PR, androgen receptors and HER2.



# Acinic cell carcinoma

- Small carcinomatous tubules can be present at the edge or within the tumour.
- Suggestion that these tubules represent malignant transformation of microglandular adenosis, and the term “microglandular carcinoma” has been used to describe some cases.
- Morphological, immunohistochemical and ultrastructural features of these lesions are different from microglandular adenosis (MGA), and the relationship between MGA and acinic cell carcinoma remains unconfirmed.



# Acinic cell carcinoma

- Differential diagnosis of secretory carcinoma.
- Acinic cell carcinoma does not show the  $t(12:15)$  *ETV6-NTRK3* rearrangement typical of secretory carcinoma.
- No deaths in reported patients.
- Axillary lymph node metastases may be found.



 Breast  
Pathology  
Course 2014

