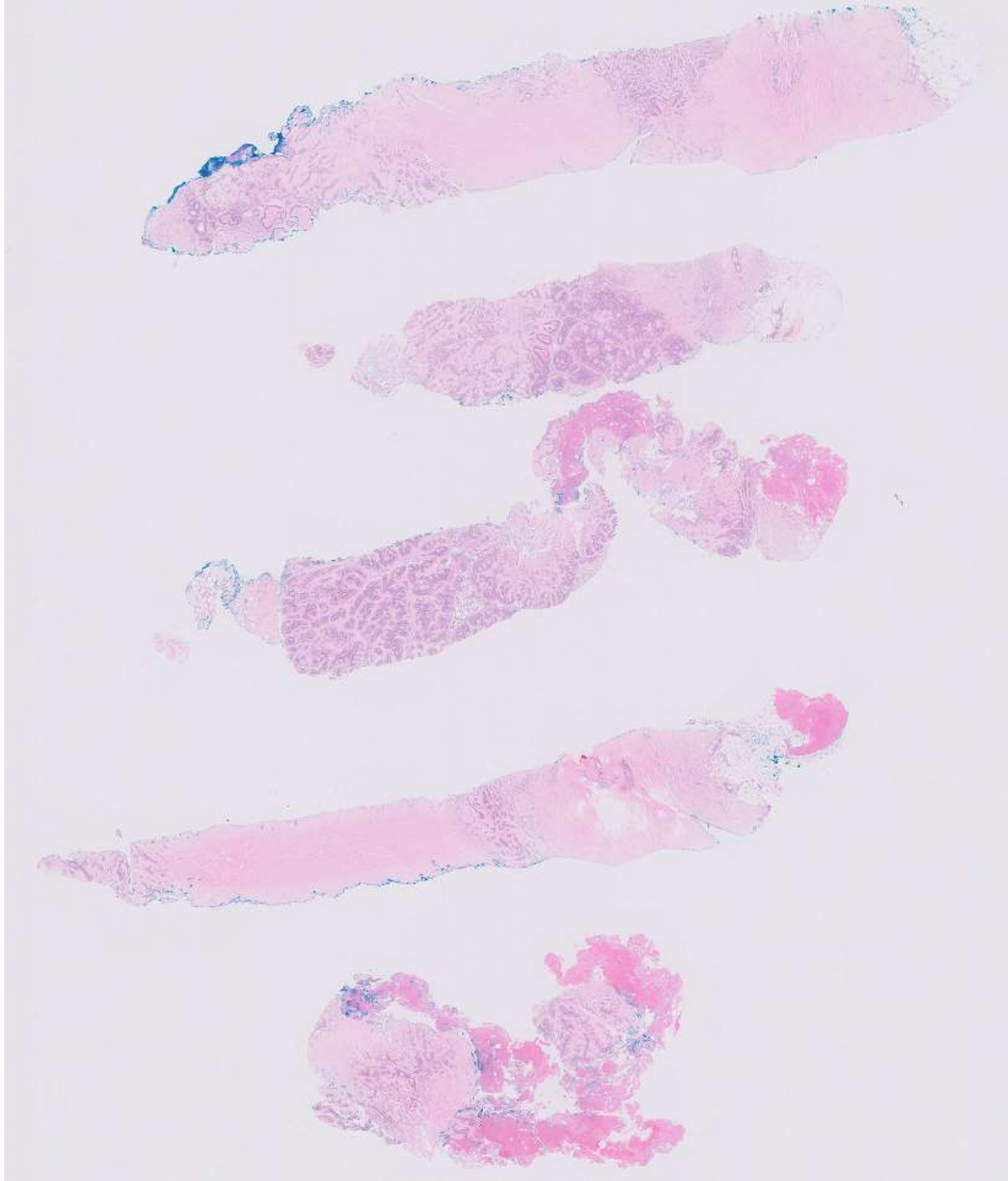


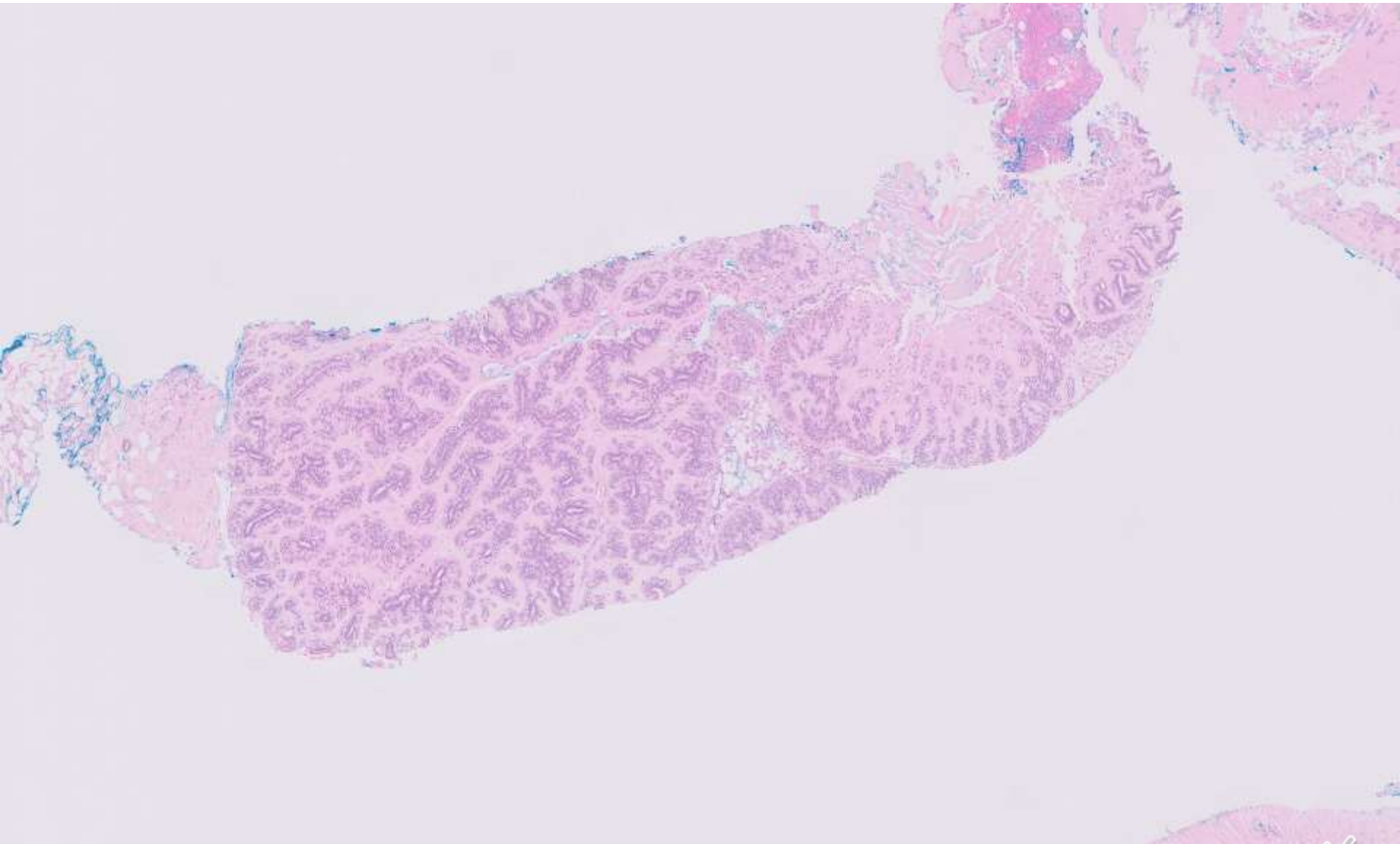
Case 5

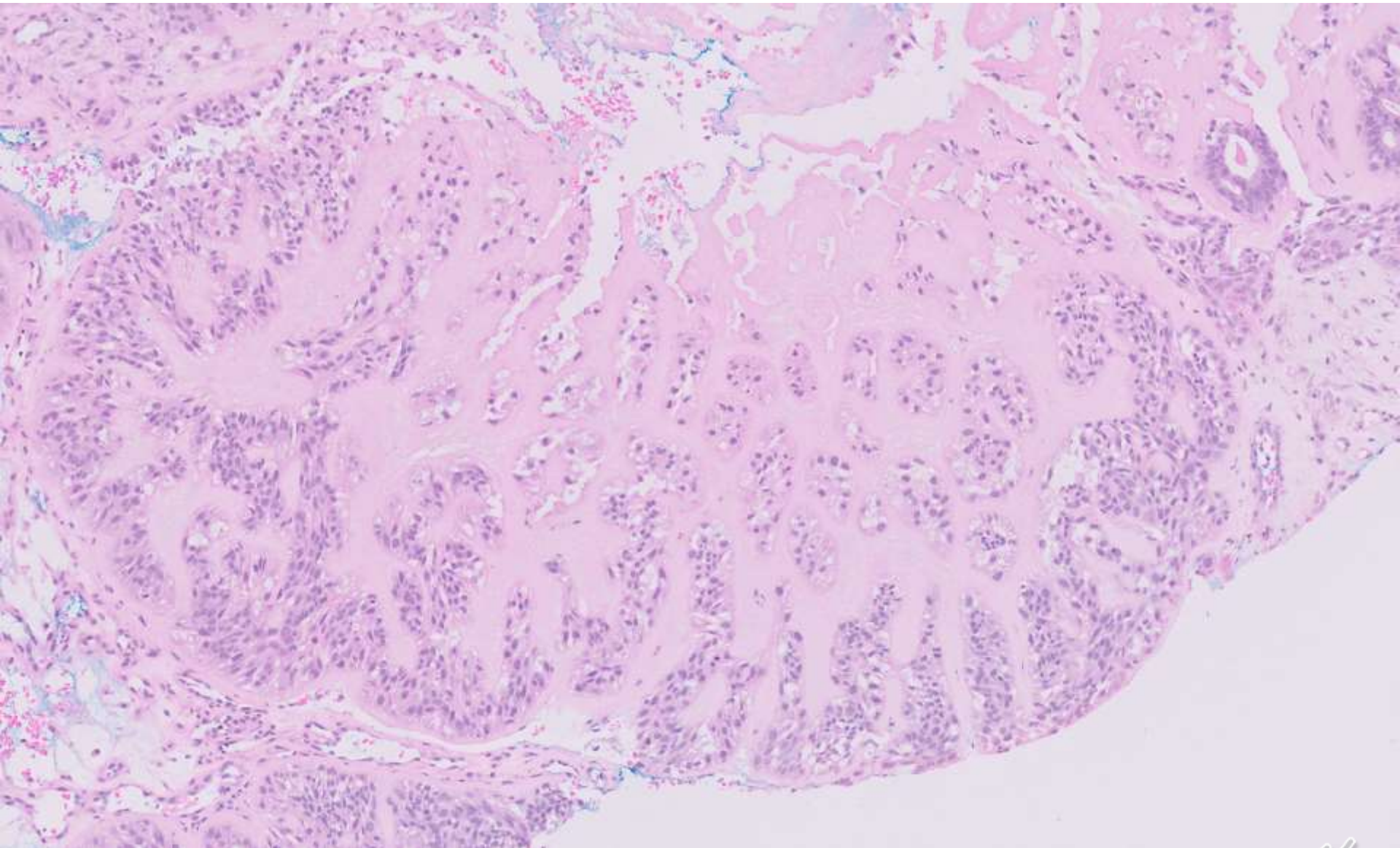
64 year old Chinese female.
US guided core biopsy of a
left breast 12 o'clock nodule.

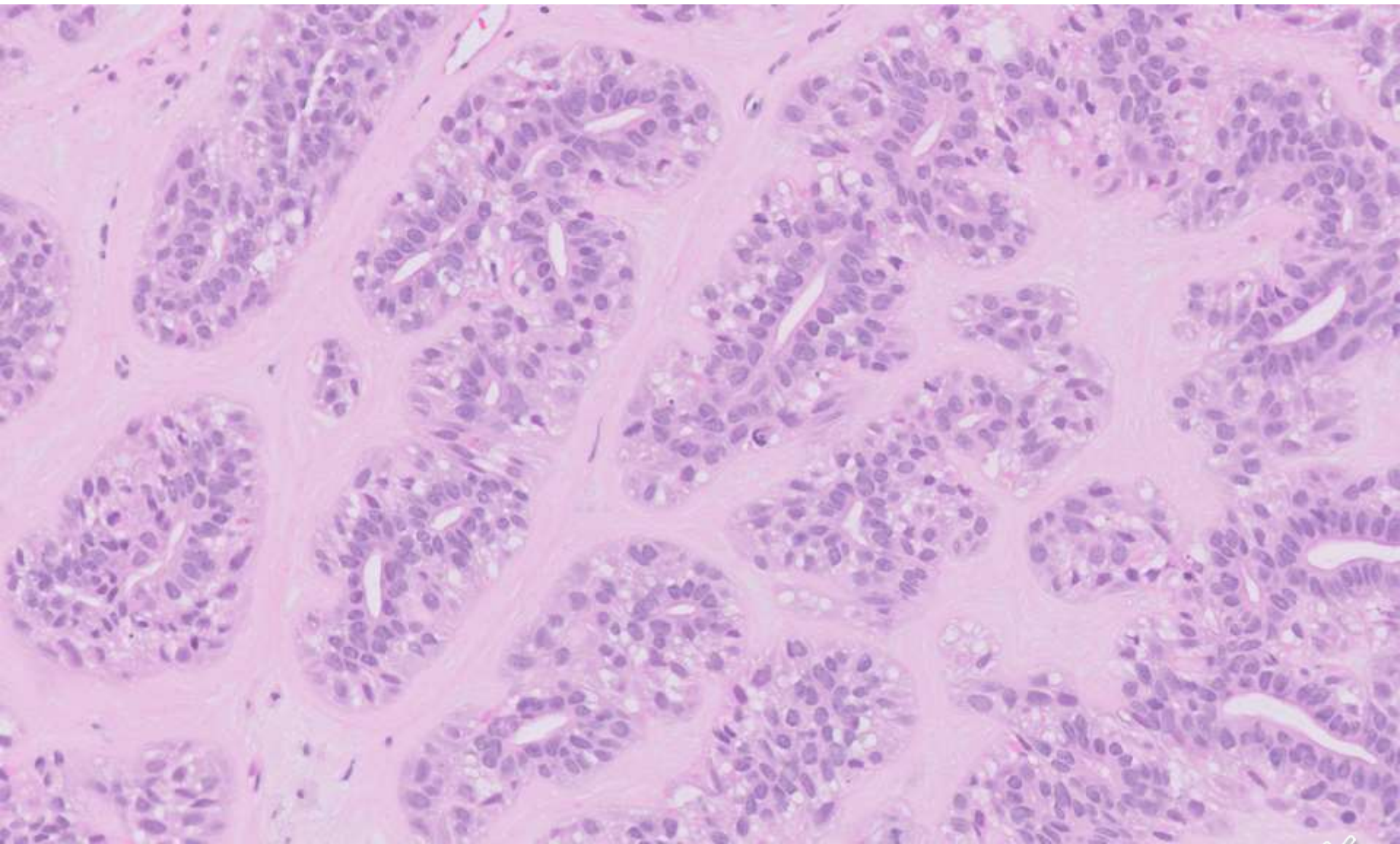
Presented by Timothy Tay

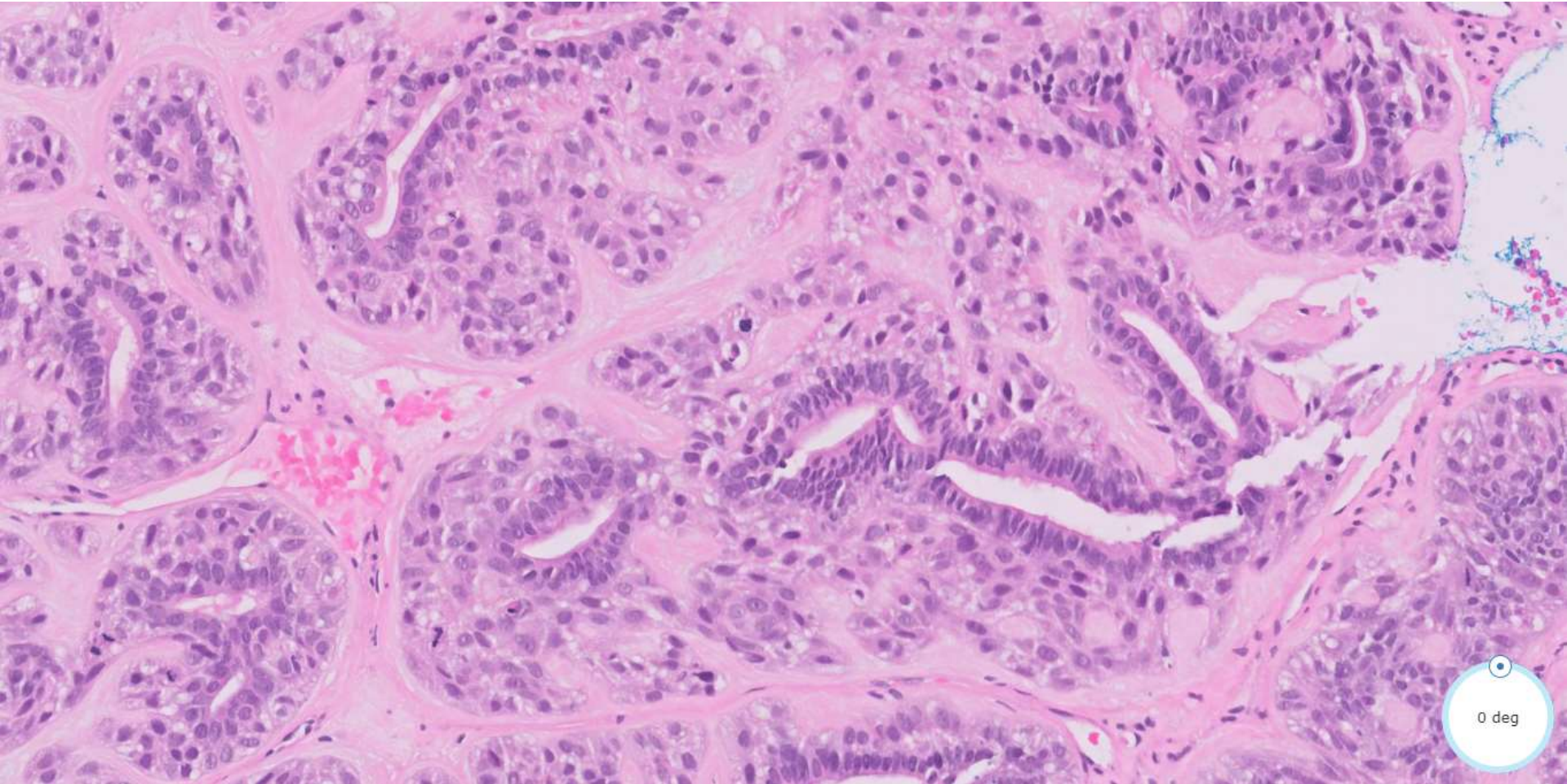






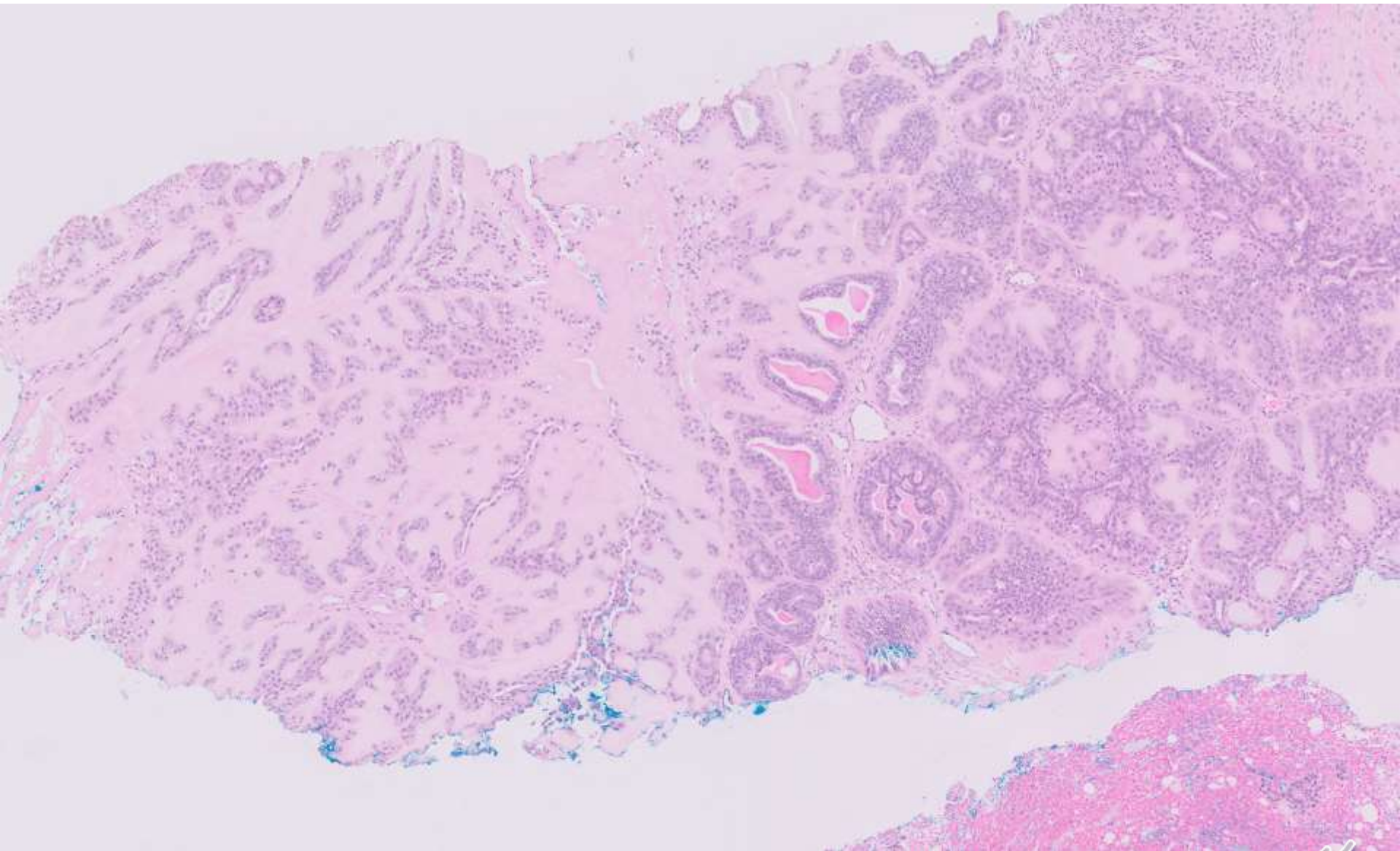


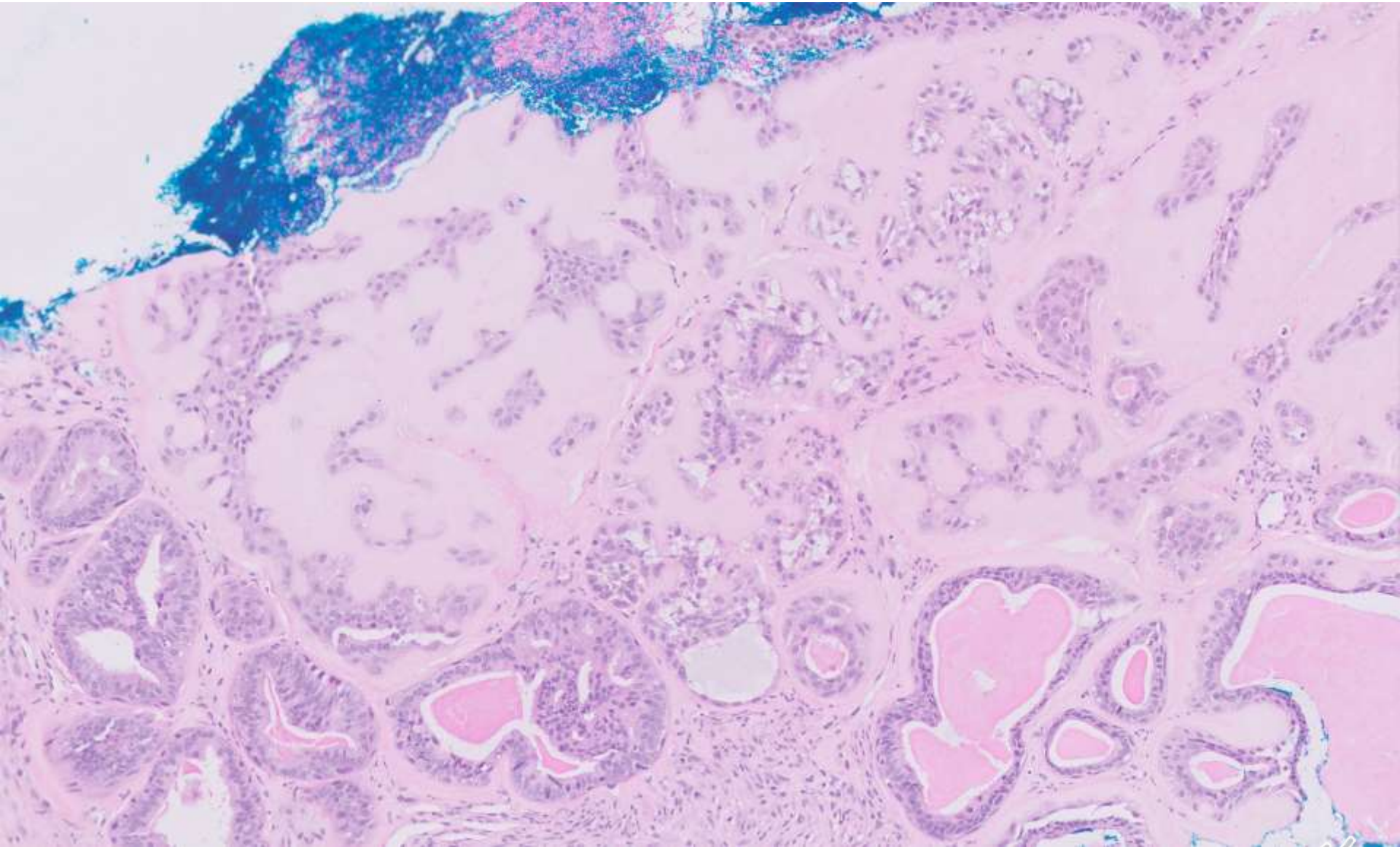


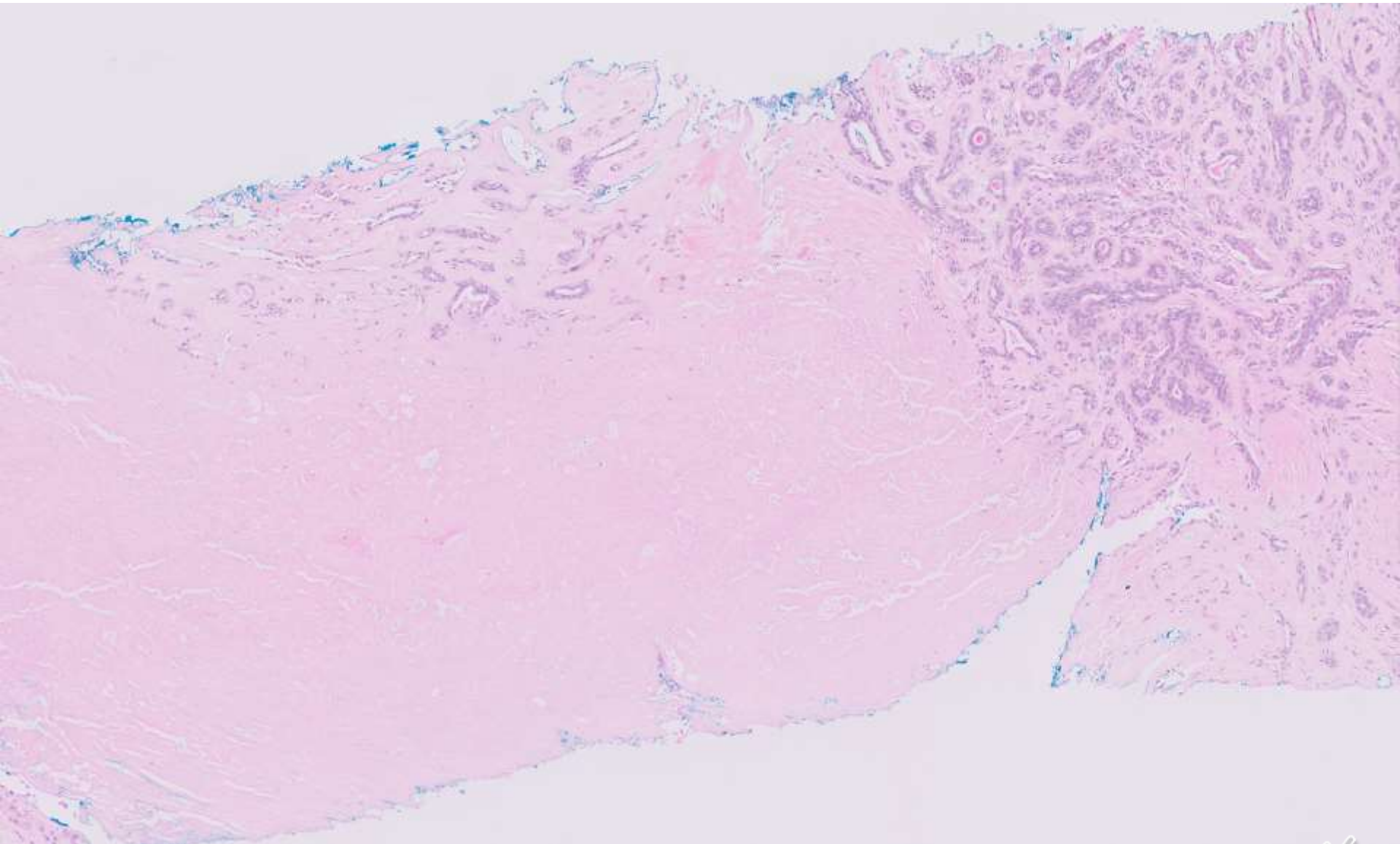


0 deg

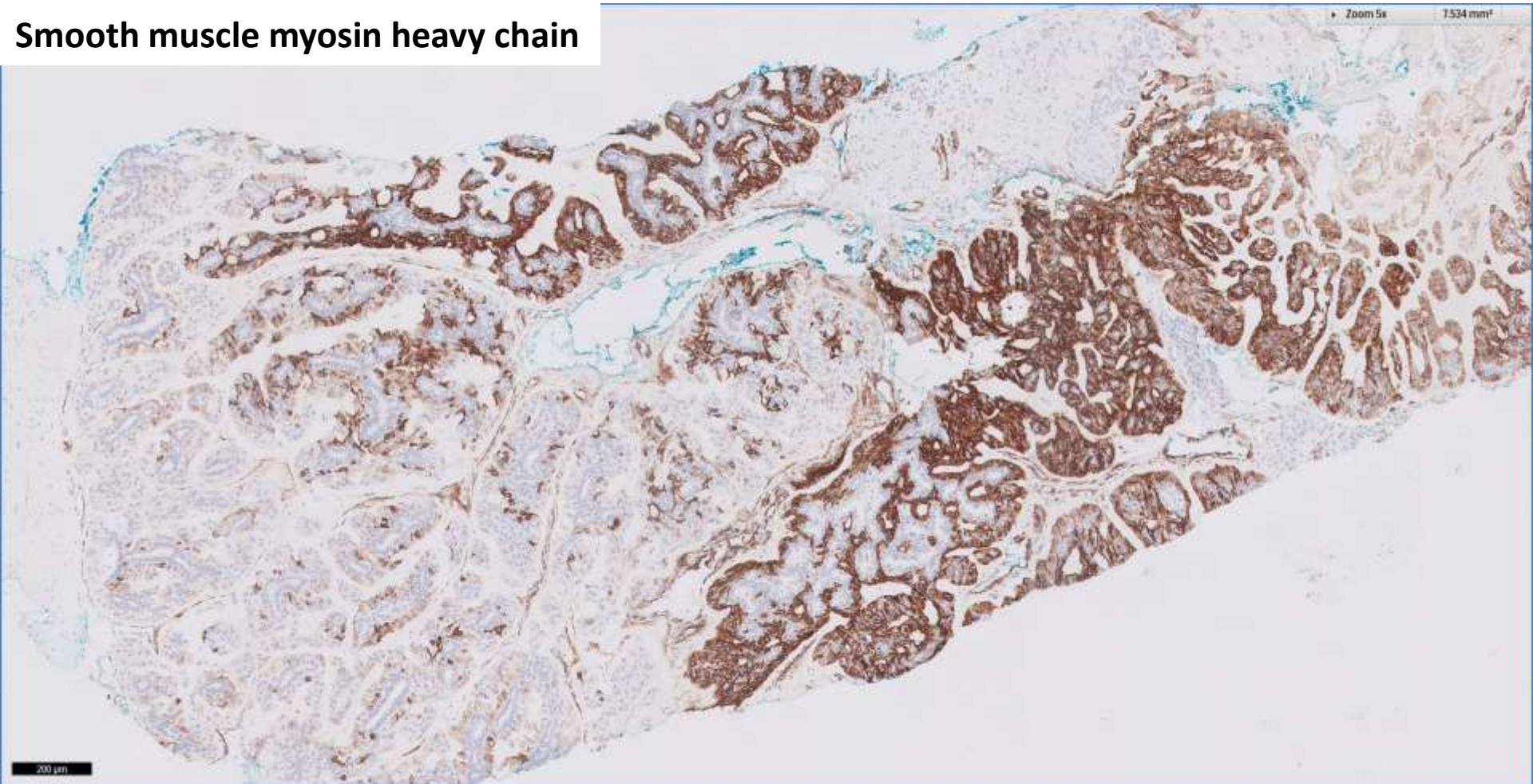




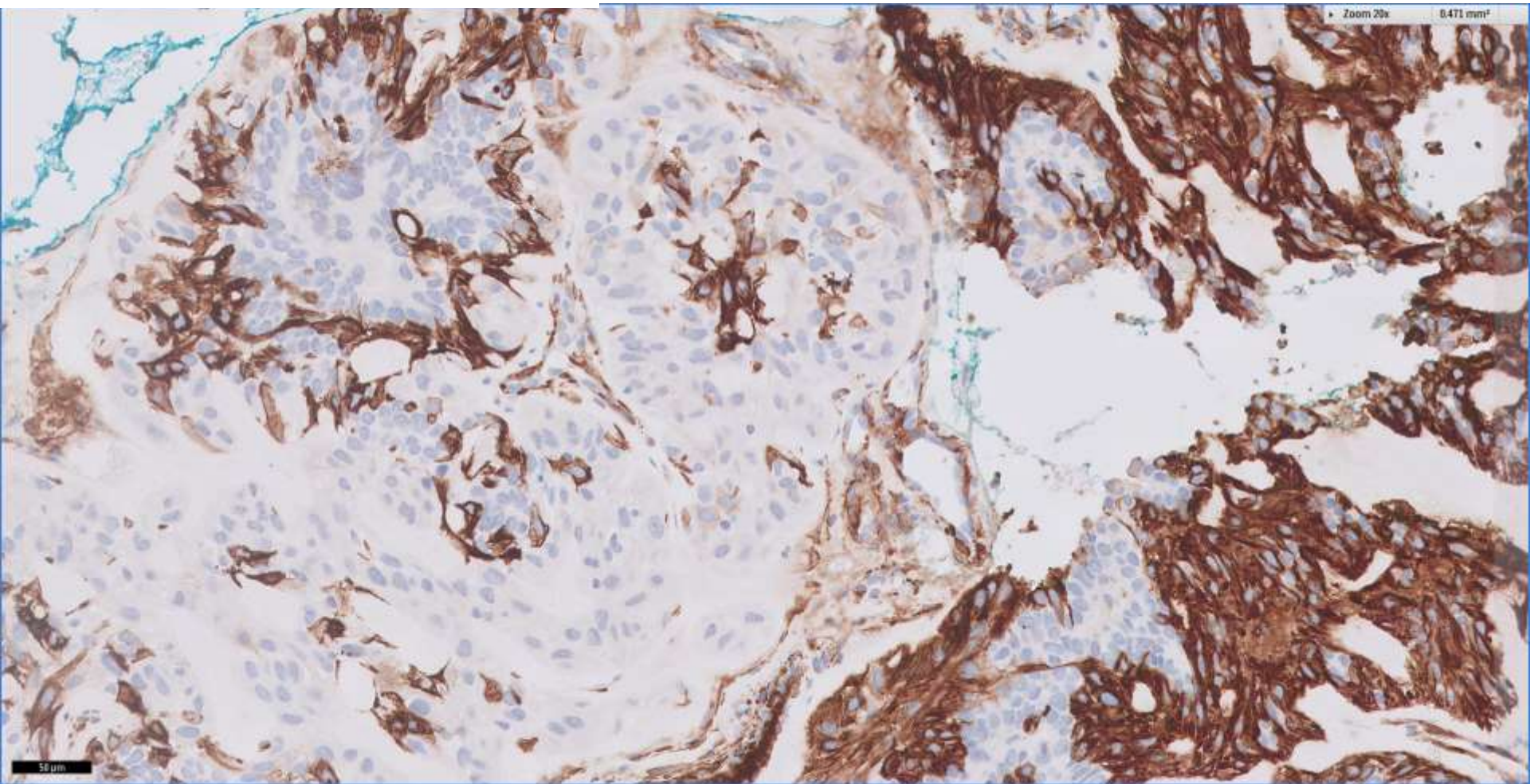




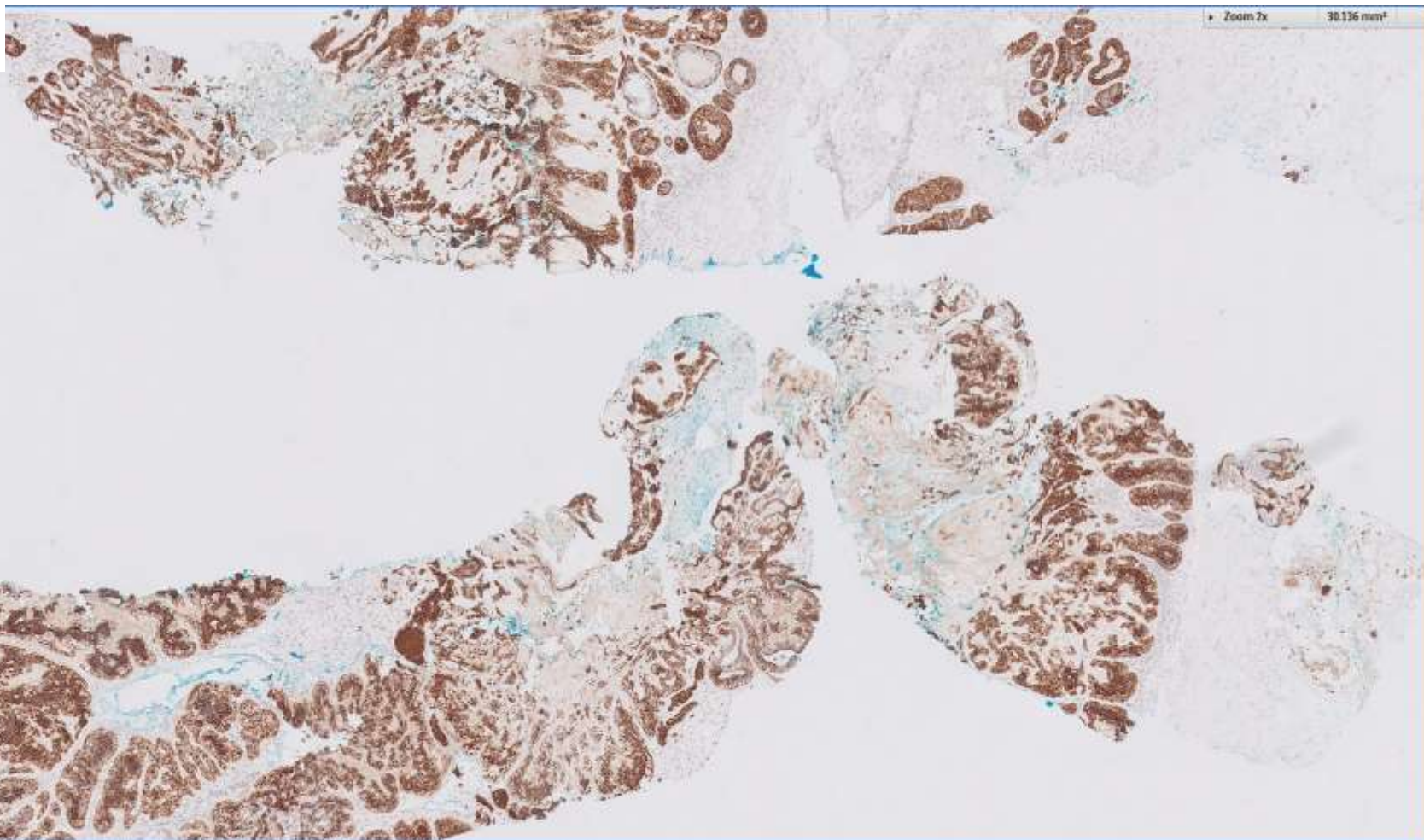
Smooth muscle myosin heavy chain



Smooth muscle myosin heavy chain

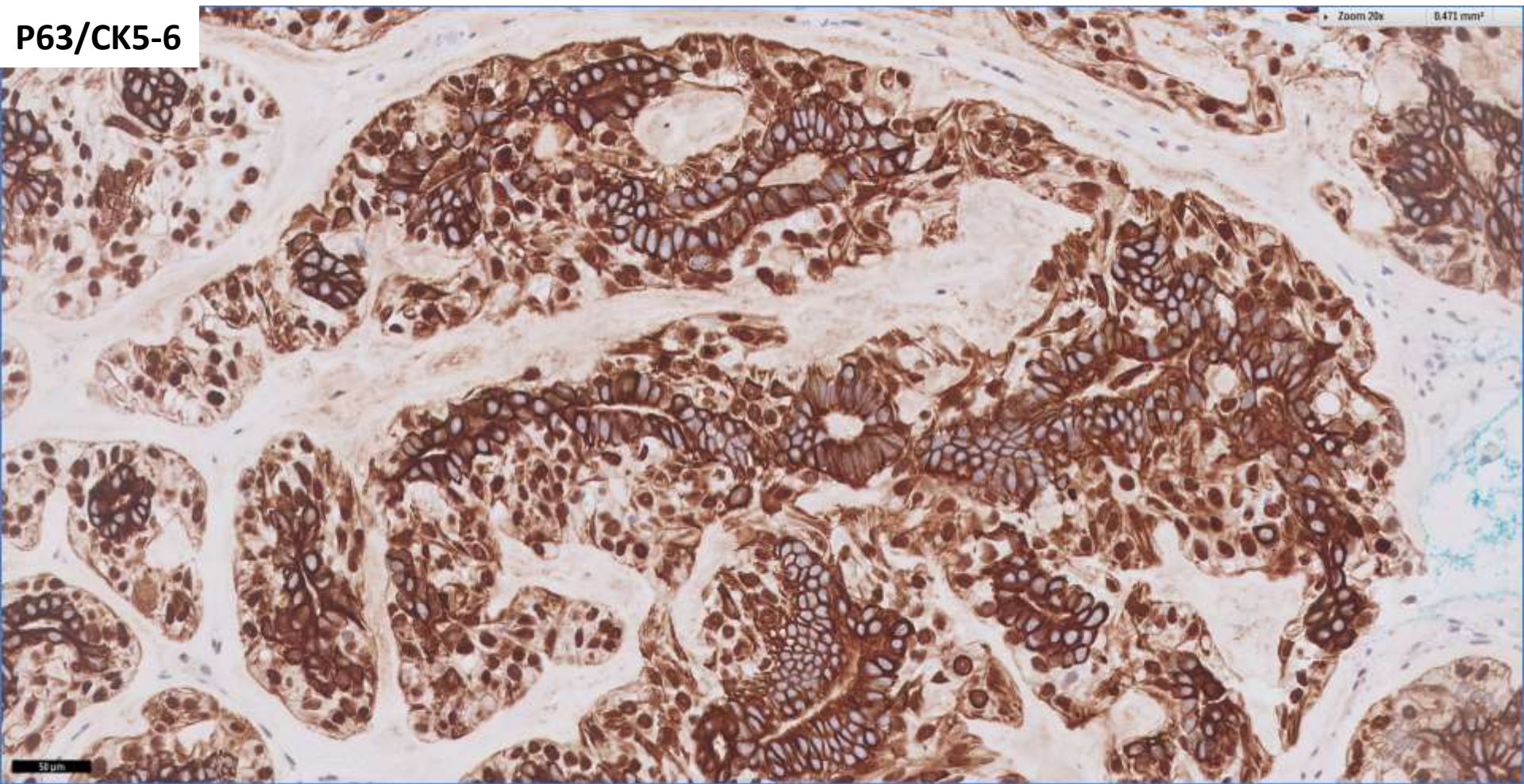


P63/CK5-6



P63/CK5-6

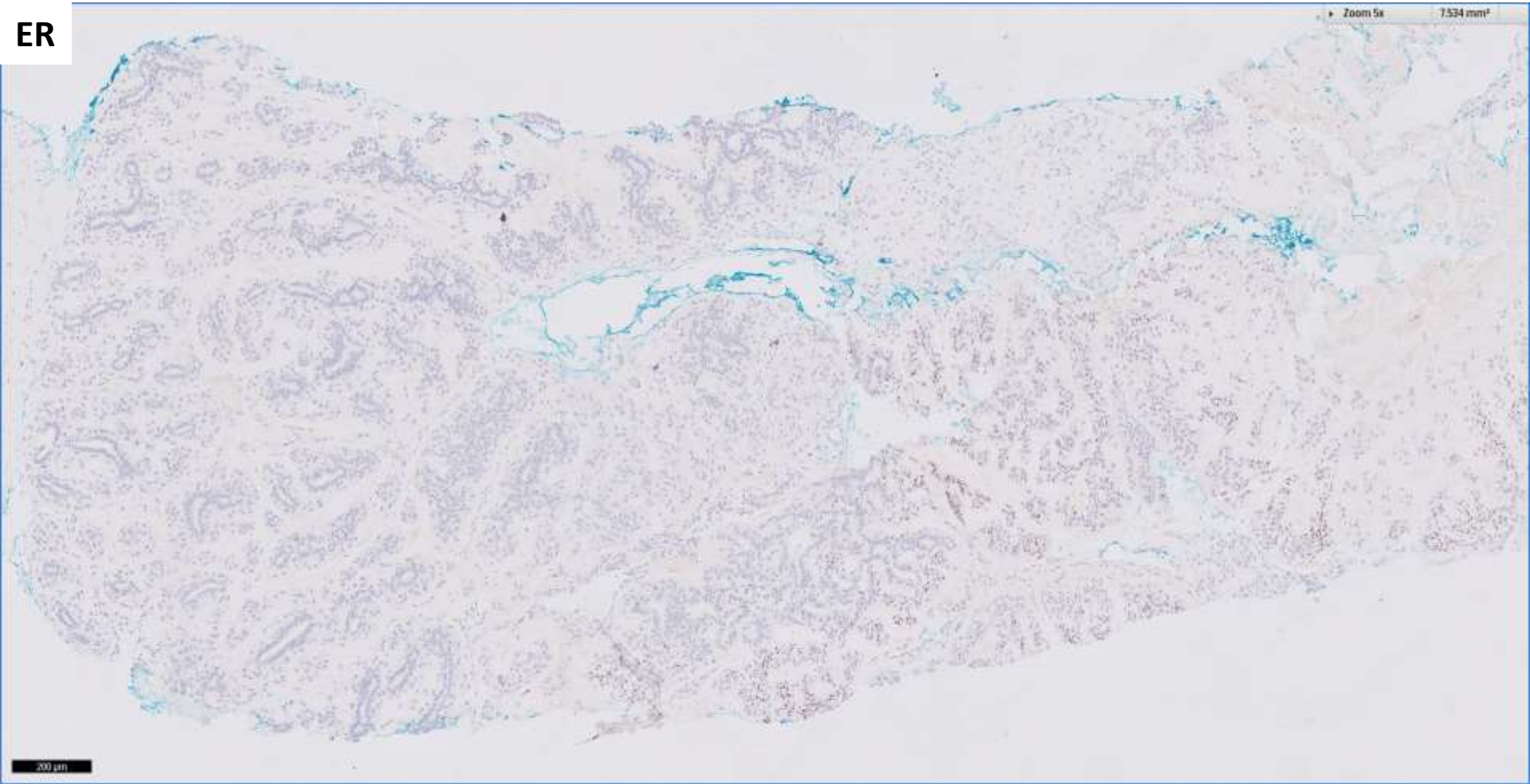
Zoom 20x 0.471 mm²



50 μm



ER



200 μm



Diagnosis

- Epithelial-myoepithelial proliferation.
- Differentials were offered in the report.
- A comment was made on the presence of infarction, although no overt atypical features are identified on the biopsy.
- Complete excision of the lesion for histological examination was recommended



- Patient also has metastatic colorectal cancer and is on palliative chemotherapy. Decision was made to follow up the nodule on imaging rather than surgery.



Differential diagnosis

- Adenomyoepithelioma
- Pleomorphic adenoma
- Sclerosing papilloma
- Fibroadenoma/Tubular adenoma
- Adenosis tumour (nodular adenosis)



Adenomyoepithelioma (AME)

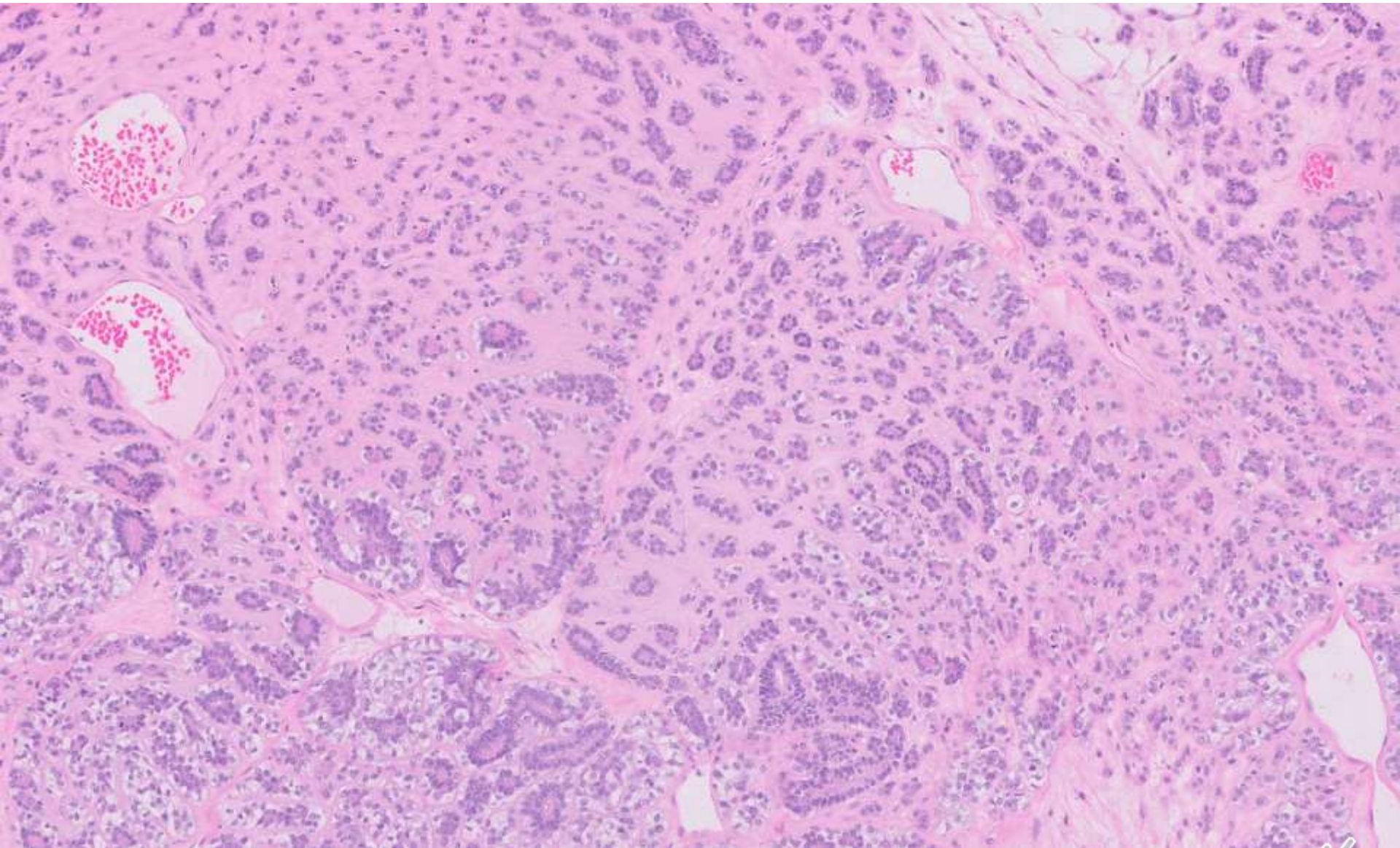
- Biphasic neoplasm composed of proliferation of tubules lined by inner luminal epithelial cells and outer prominent, polygonal or spindled myoepithelial cells with eosinophilic or clear cytoplasm.
- Myoepithelial cells are prominent or increased in number in AMEs compared to other breast tumours.
- Proliferation of myoepithelial cells may occlude the glandular lumens rendering them inconspicuous.

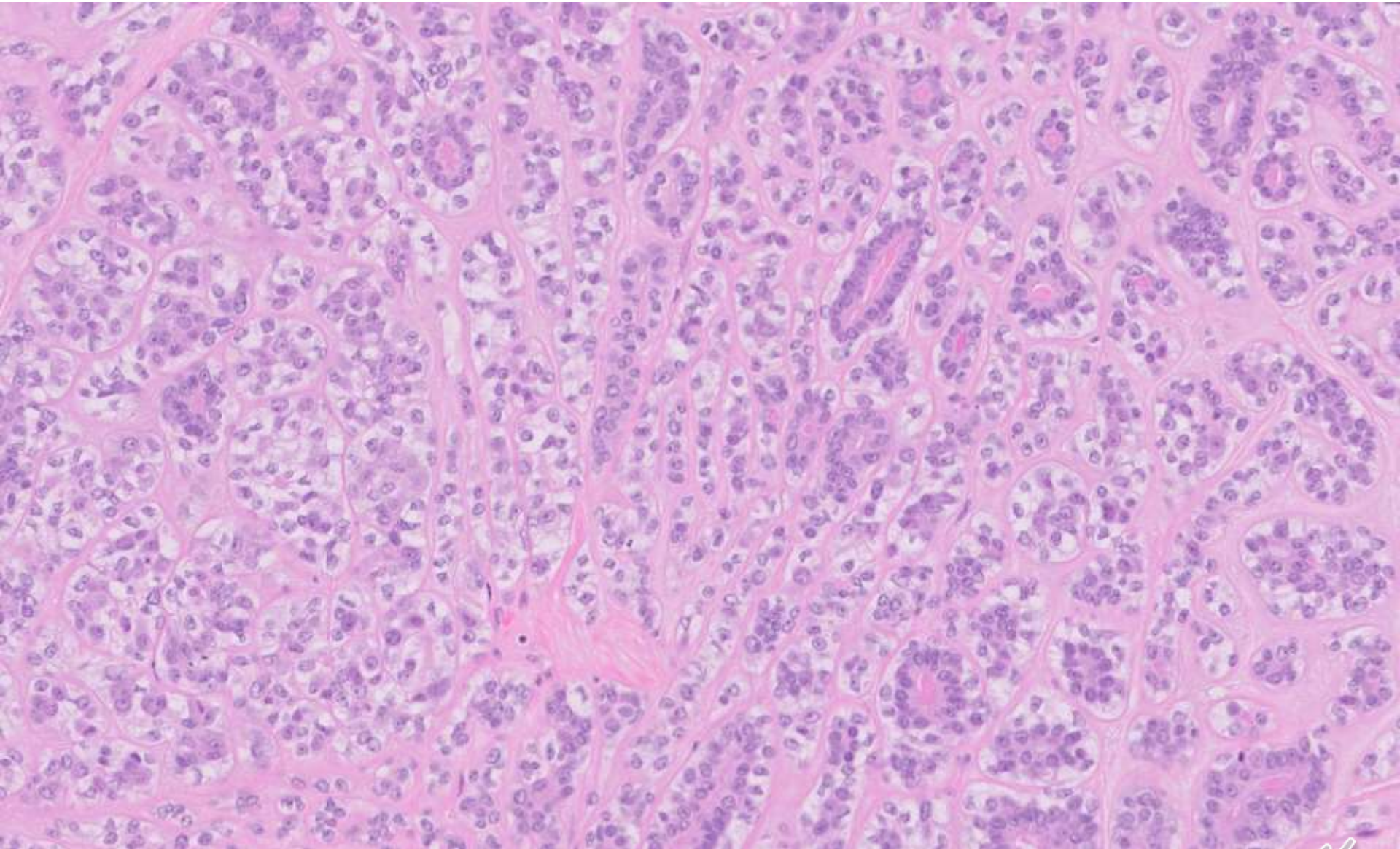


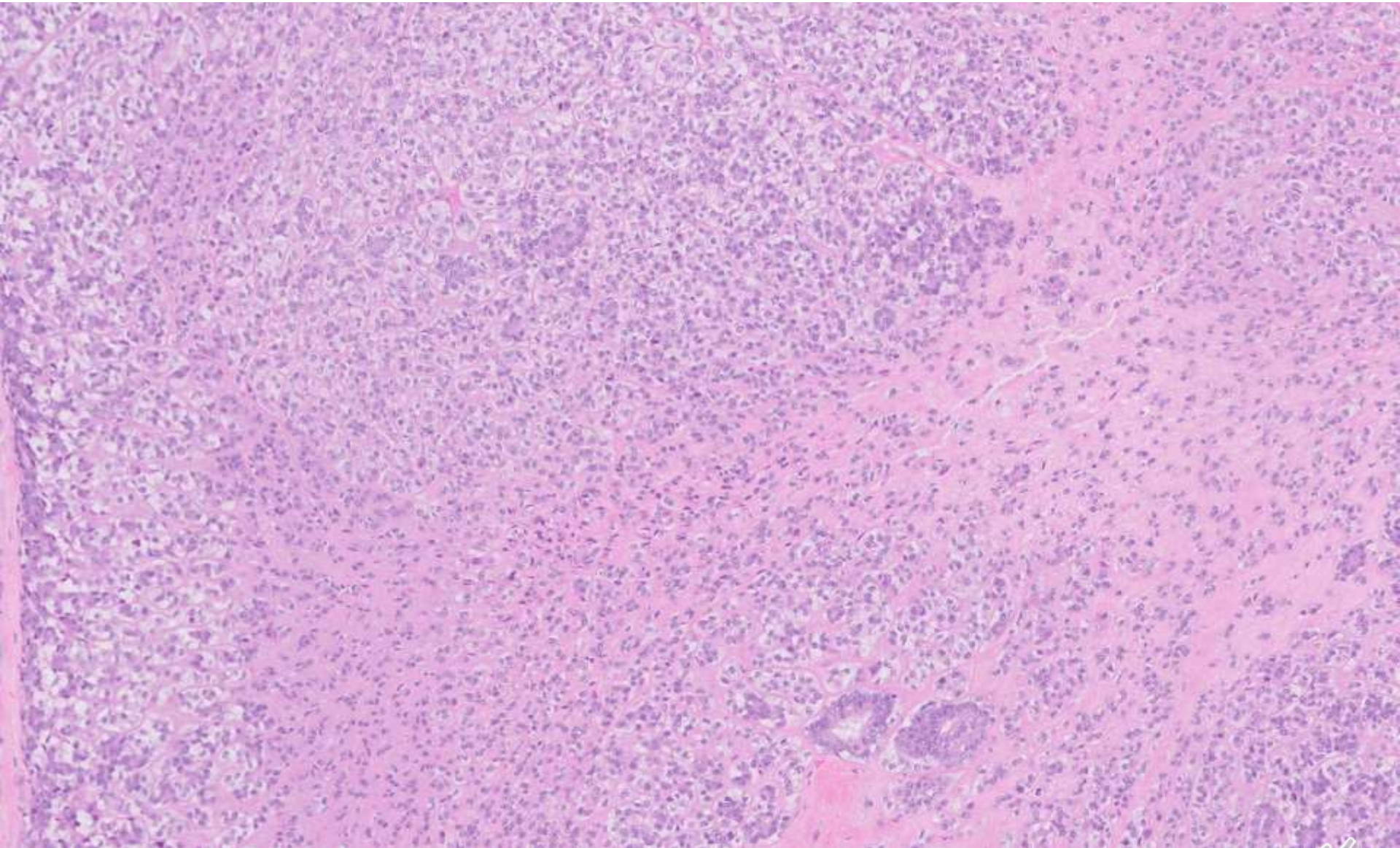
Adenomyoepithelioma (AME)

- Tubular, spindled, lobulated or papillary architecture.
- Dense, hyaline, sclerotic collagen stromal matrix may be present.
- Lack cytologic atypia, necrosis and mitotic activity is low (0-2 mitoses per 10 high power fields)





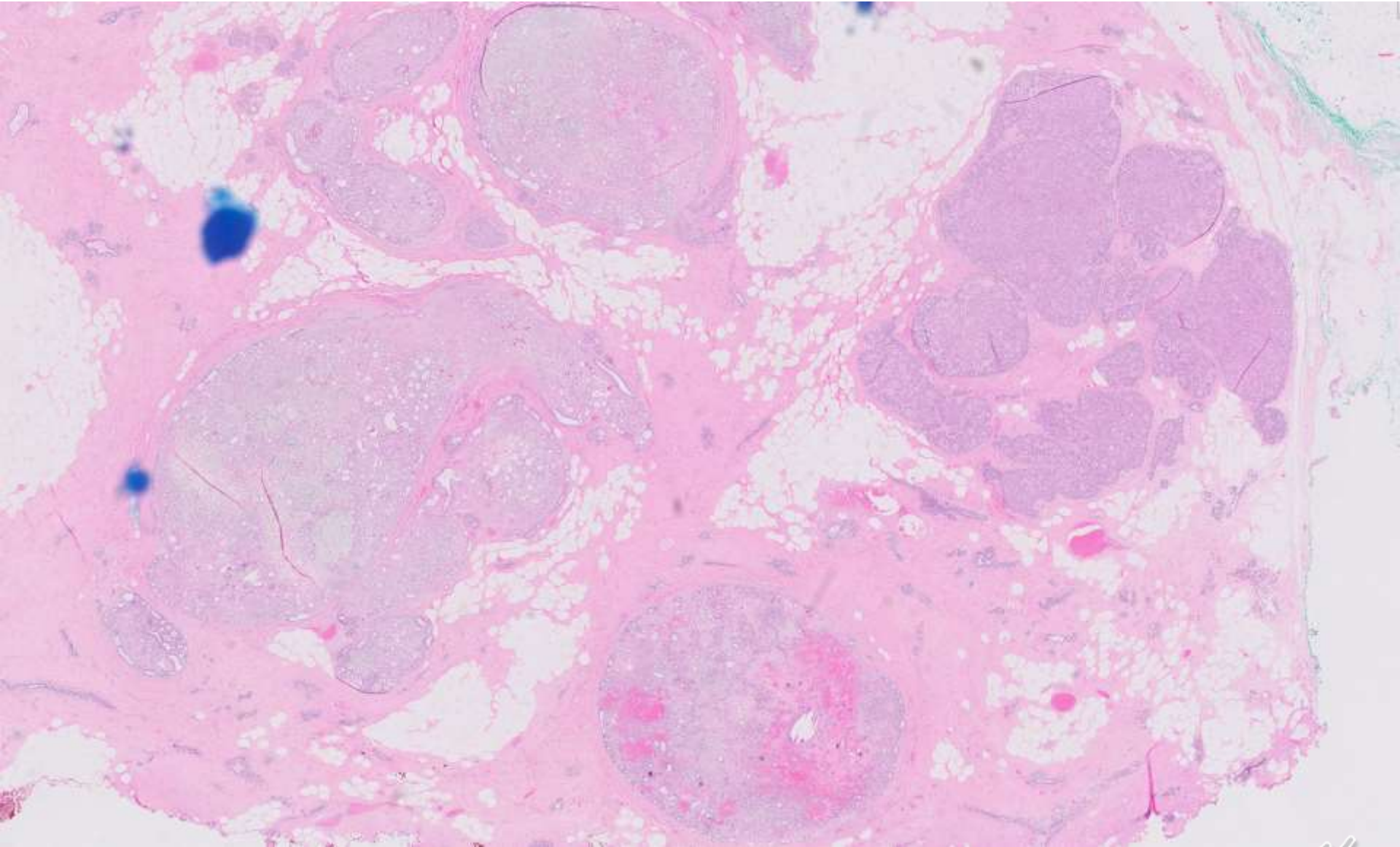


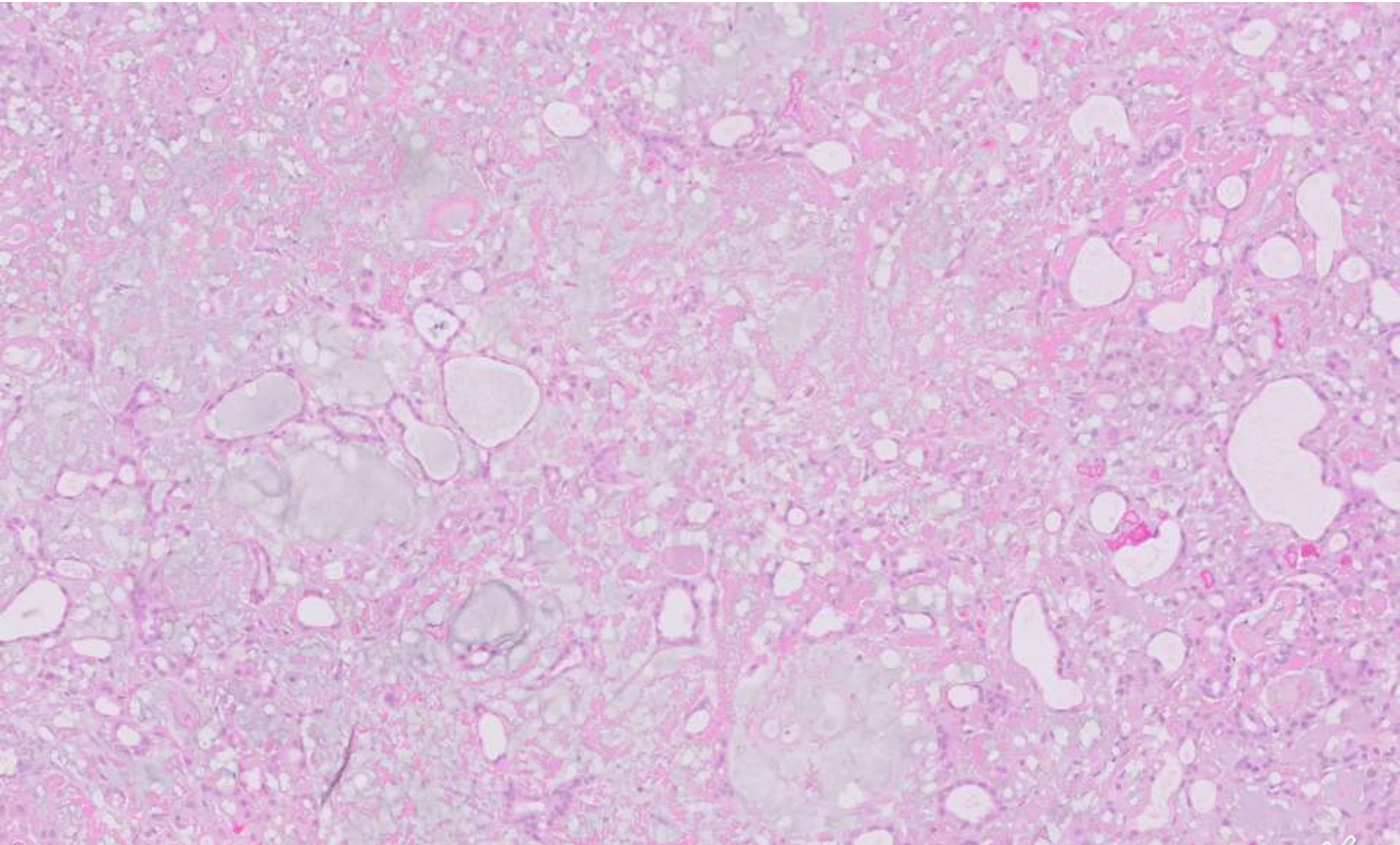


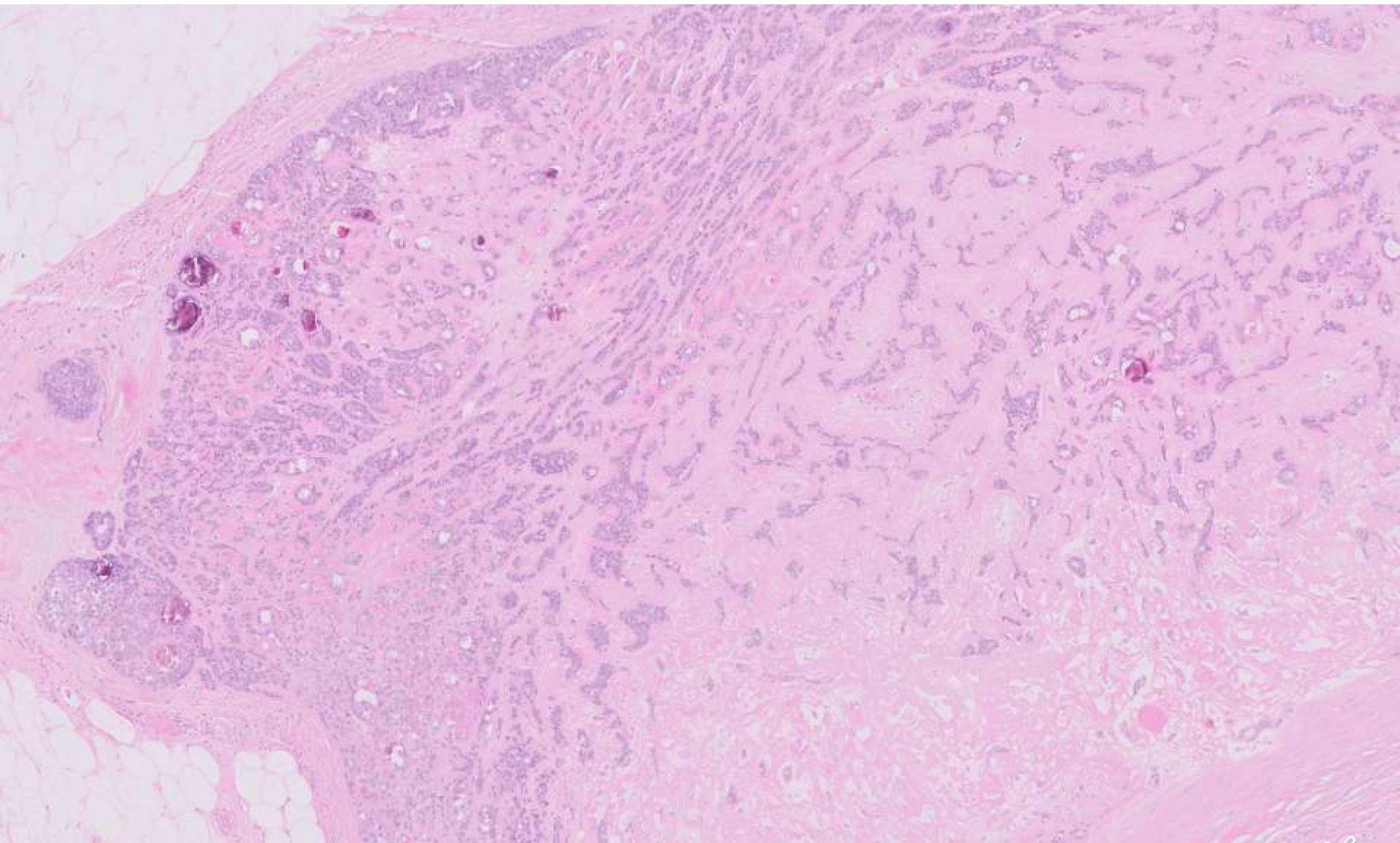
Pleomorphic adenoma (PA)

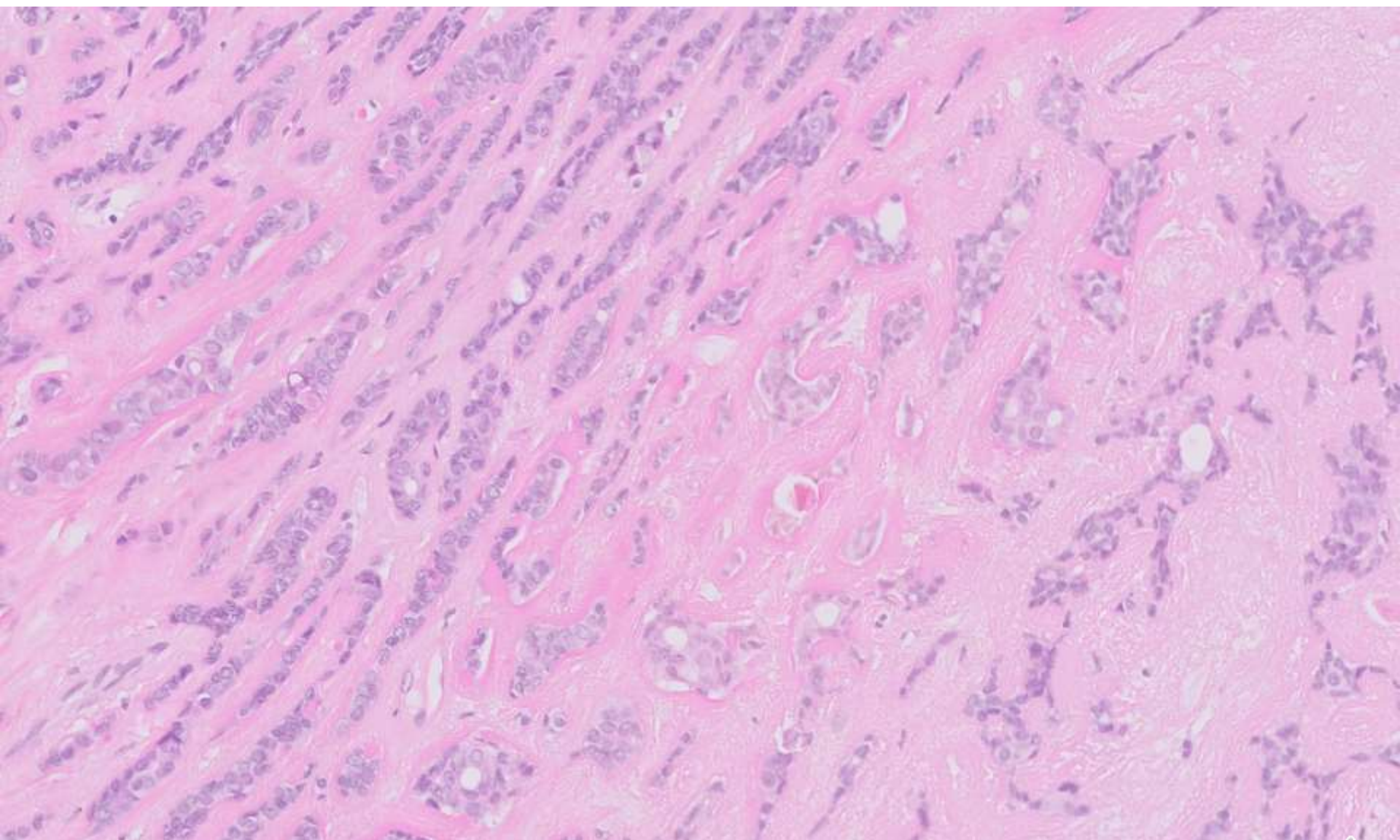
- Very rare benign tumour of the breast composed of epithelial and myoepithelial components set within a chondromyxoid stroma.
- Histology similar to salivary gland PAs
- AMEs can sometimes have a chondromyxoid stroma and mimic PA.











Sclectrosing papilloma

- AMEs with predominant papillary architecture may be hard to distinguish from intraductal/sclectrosing papillomas with myoepithelial cell hyperplasia.
- A subset of ER positive AMEs also harbour *PIK3CA* or *AKT1* mutations similar to intraductal papillomas

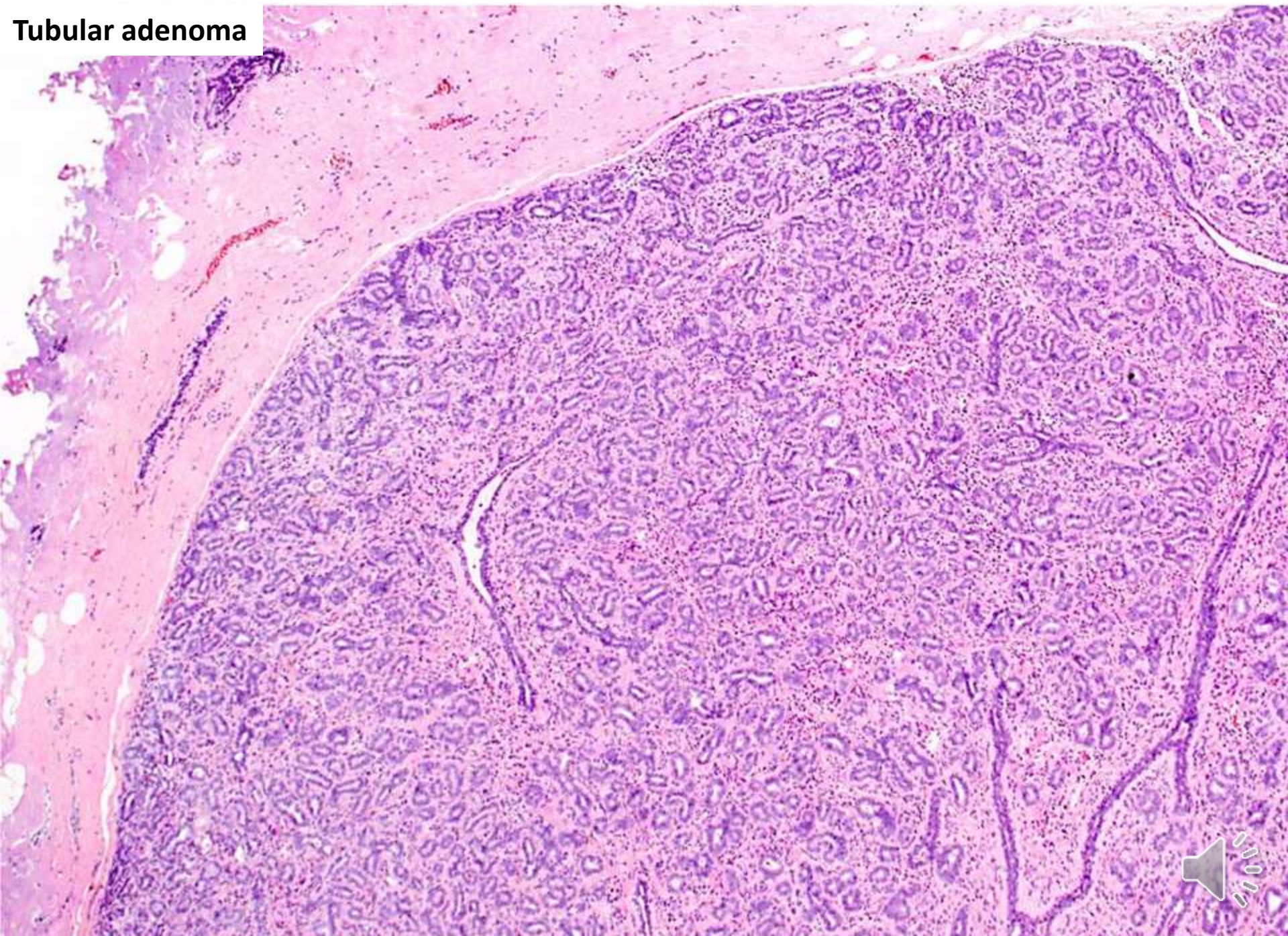


Fibroadenoma/Tubular adenoma and Adenosis tumour

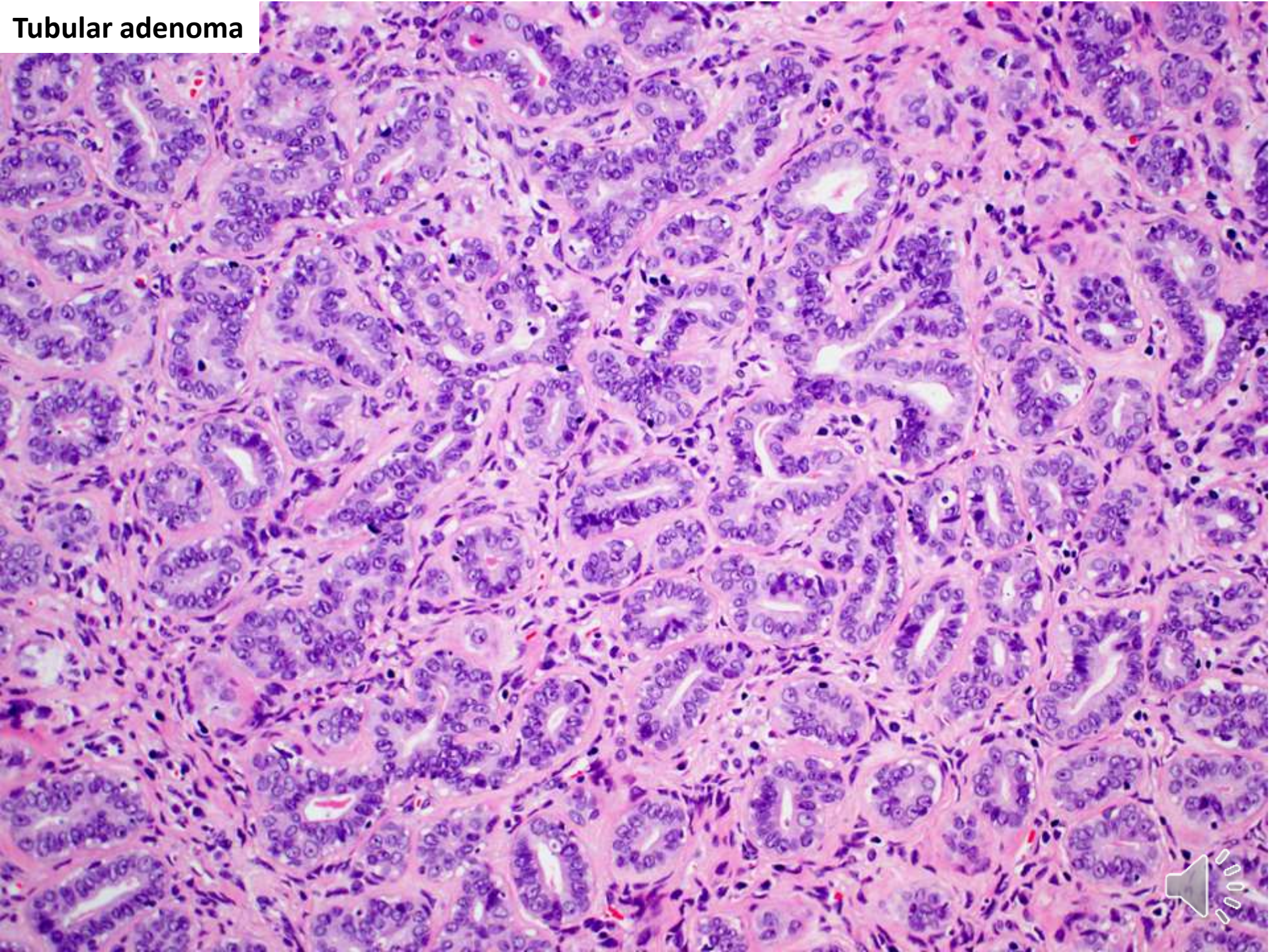
- Both tubular adenoma and adenosis tumour feature a proliferation of benign tubules.
- Unlike AMEs, both entities do not show prominence or proliferation of the myoepithelial cell layer.



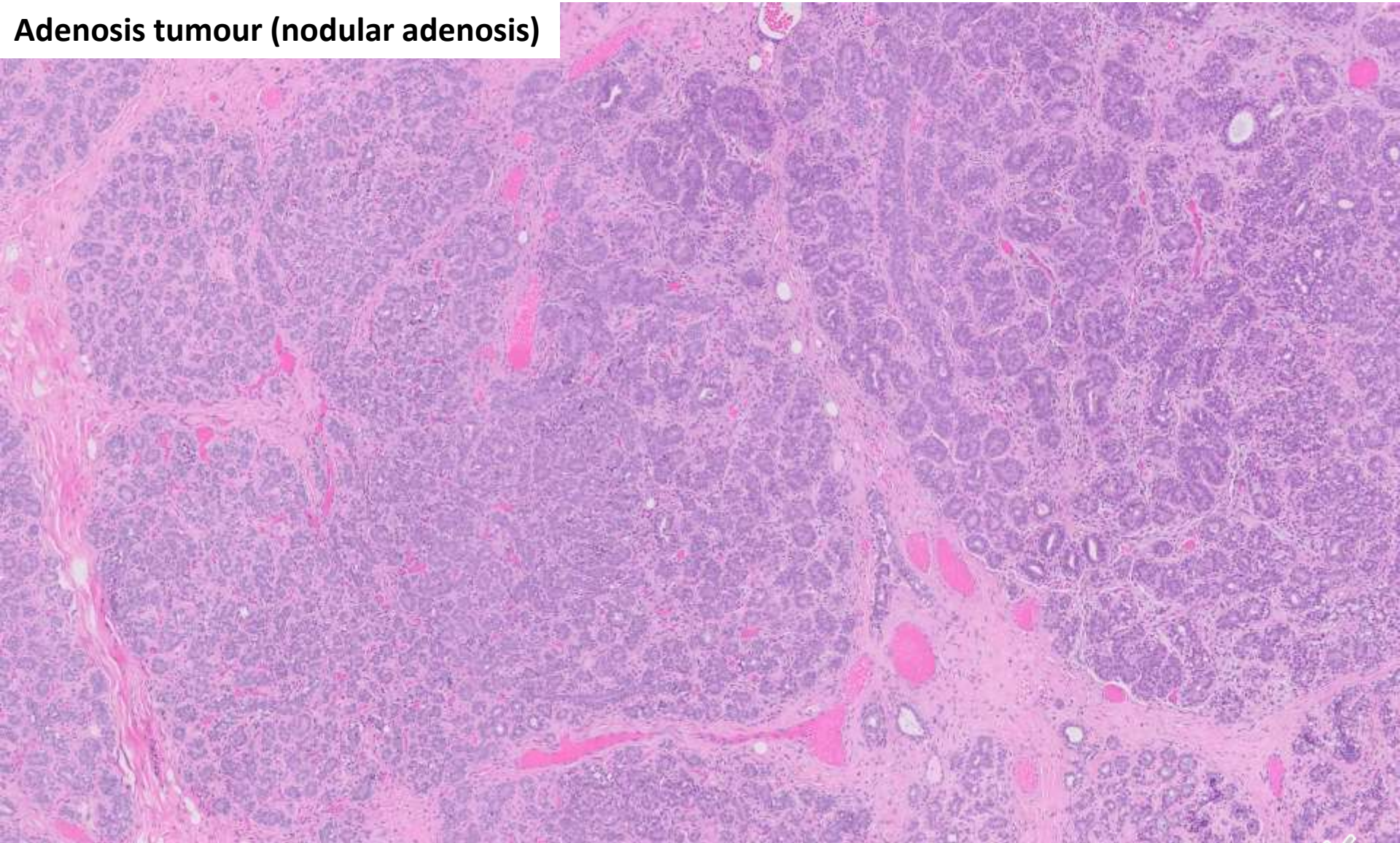
Tubular adenoma



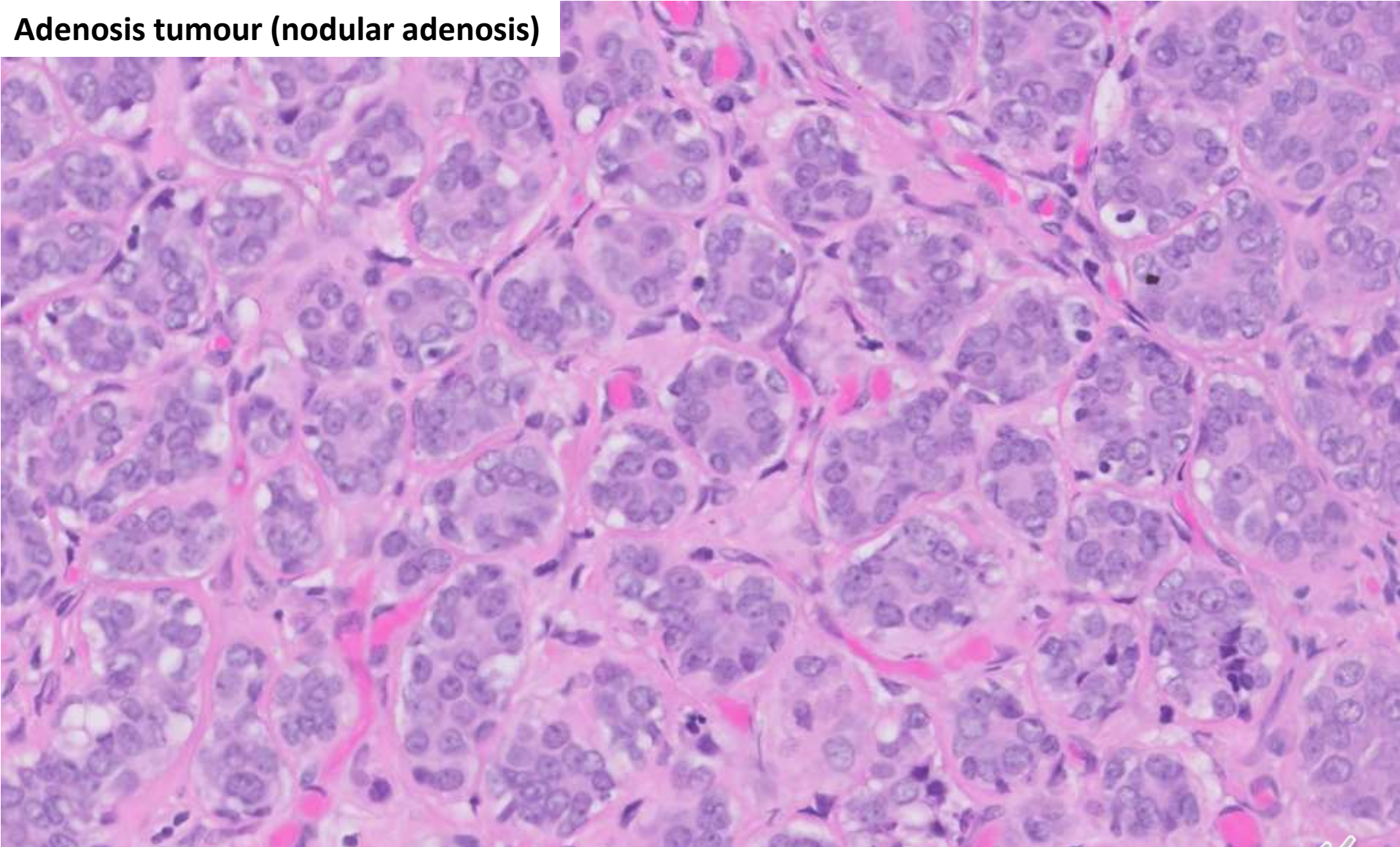
Tubular adenoma



Adenosis tumour (nodular adenosis)



Adenosis tumour (nodular adenosis)



Diagnosis

- Epithelial-myoeepithelial proliferation

- (features most in keeping with Adenomyoepithelioma, with Pleomorphic Adenoma as a differential as both entities can have morphologic overlap)





Breast
Pathology
Course 2020 @21

Thank You



Division of Pathology
Singapore General Hospital


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