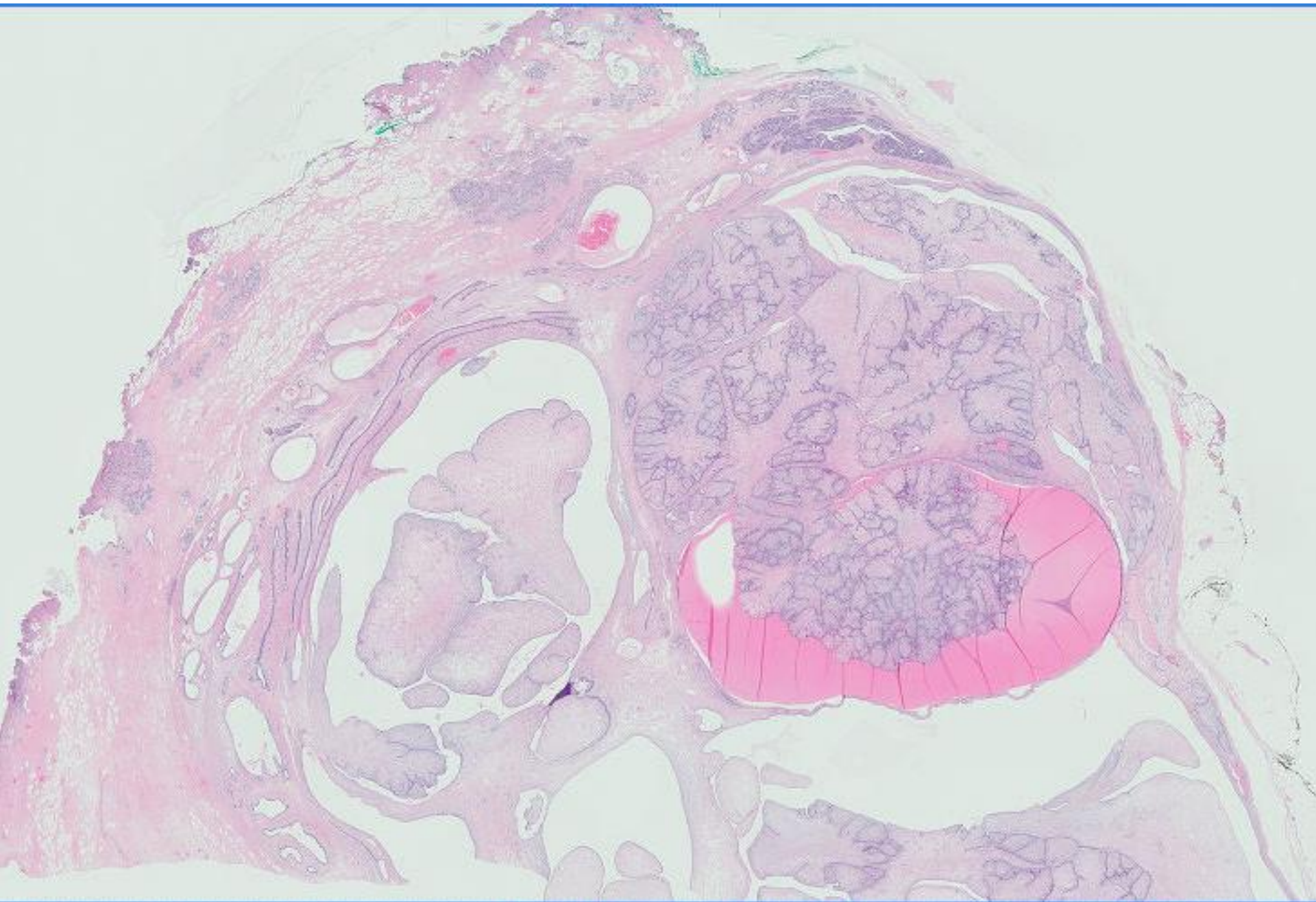
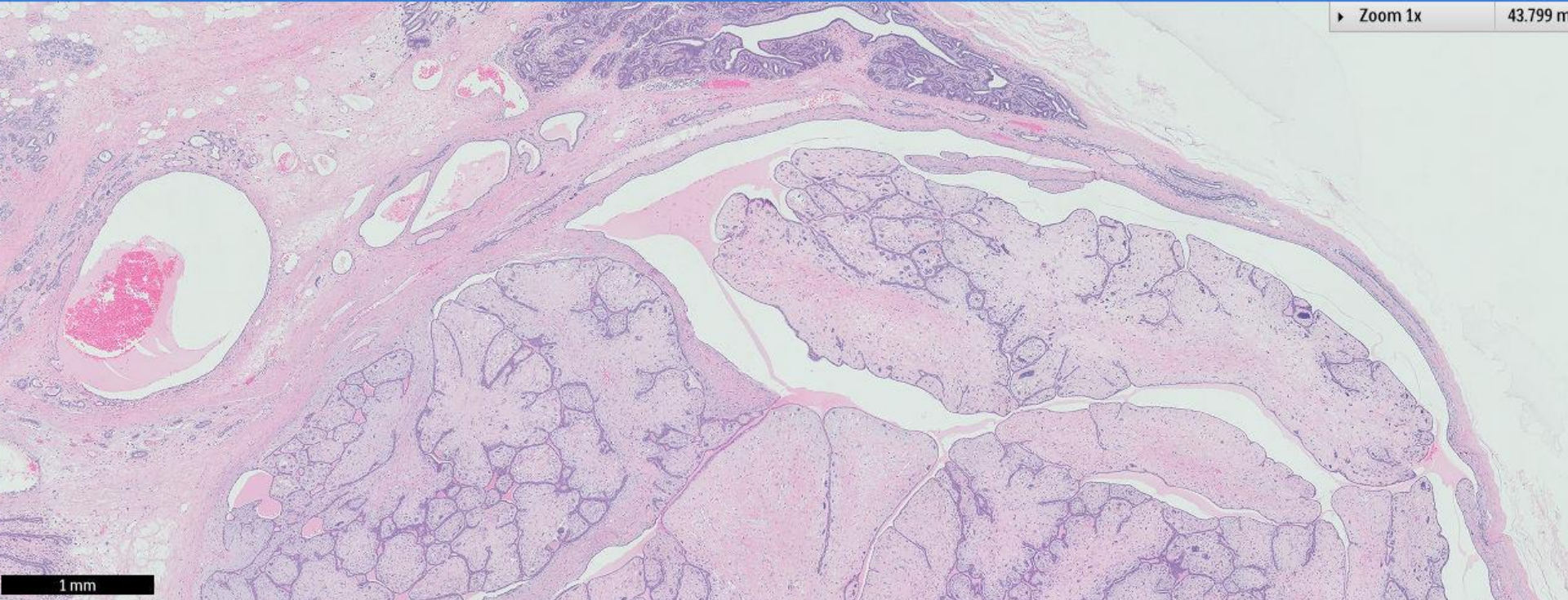


Case 38

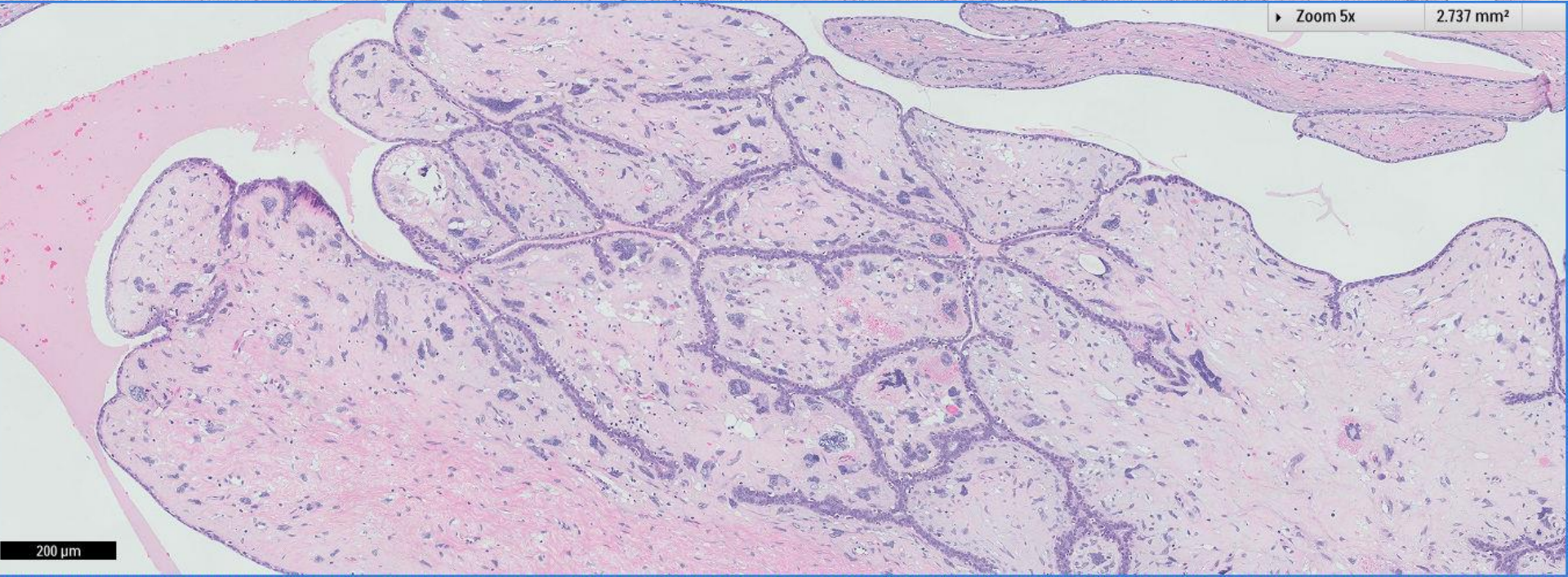
Adult woman with a 35mm right breast lump
at the 10 o'clock position.
Excision performed.

(Case contributed by Dr Mihir Gudi, KKH)

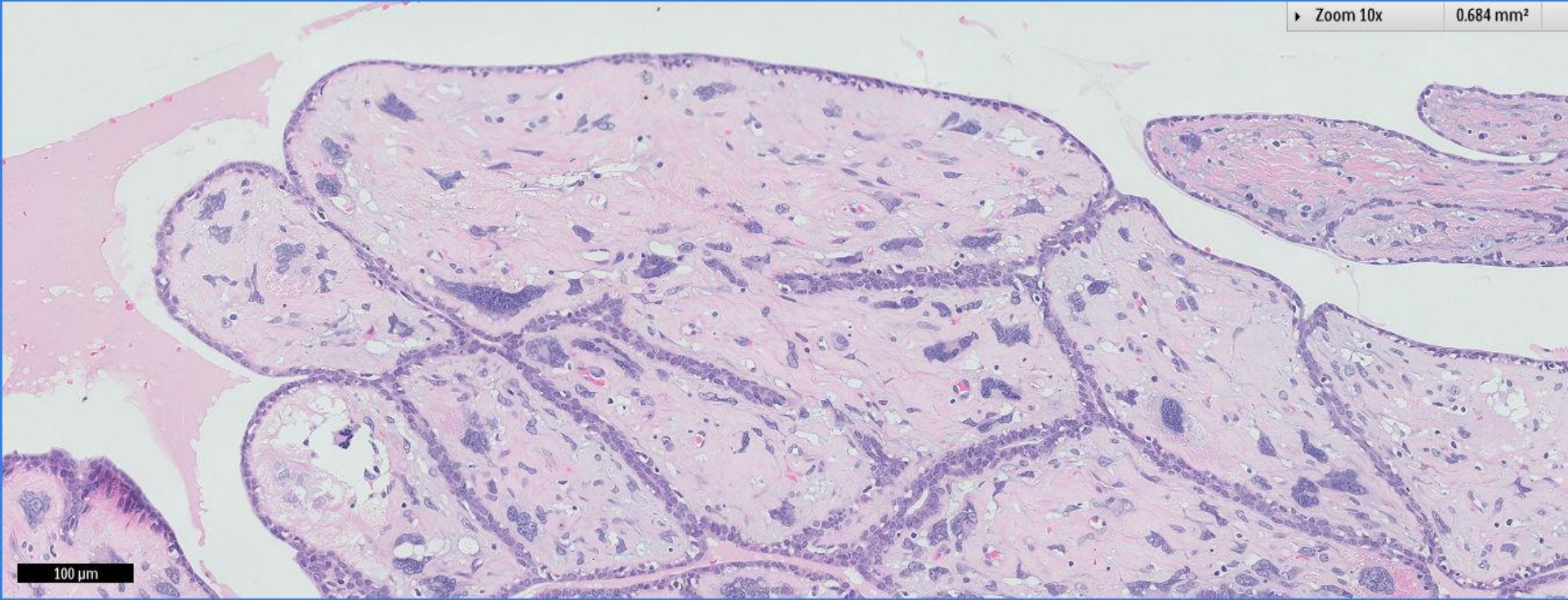




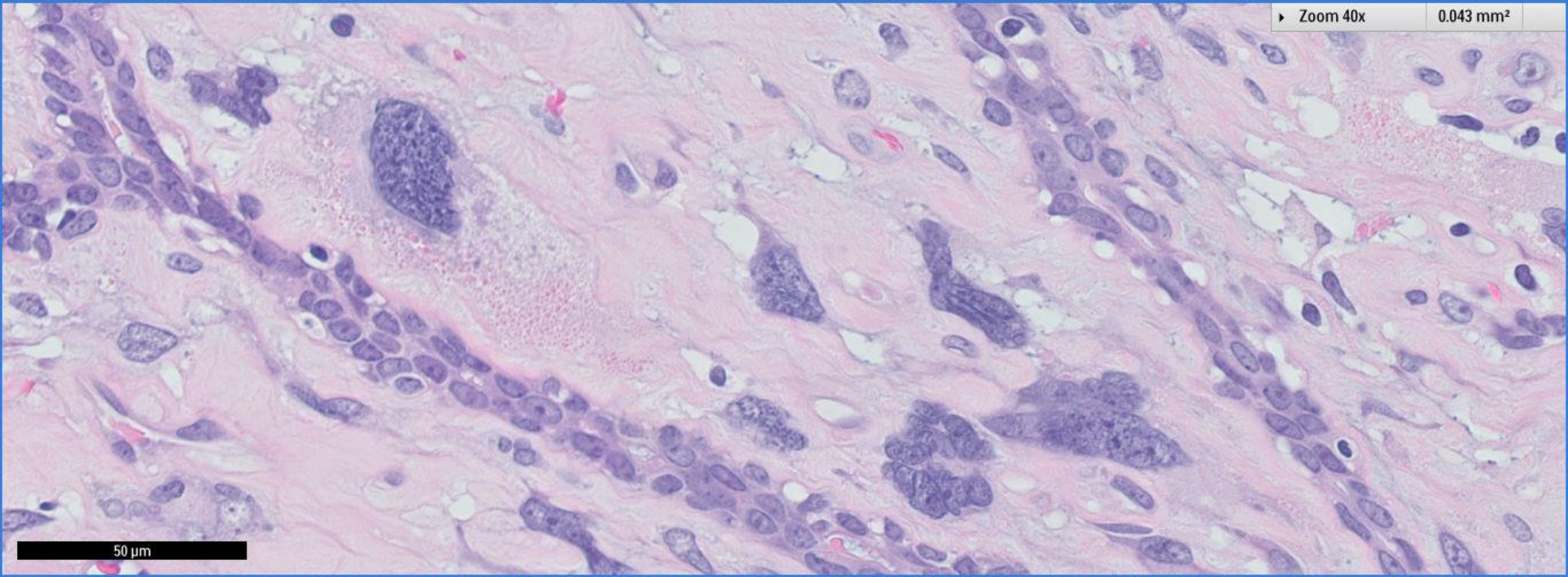
1 mm



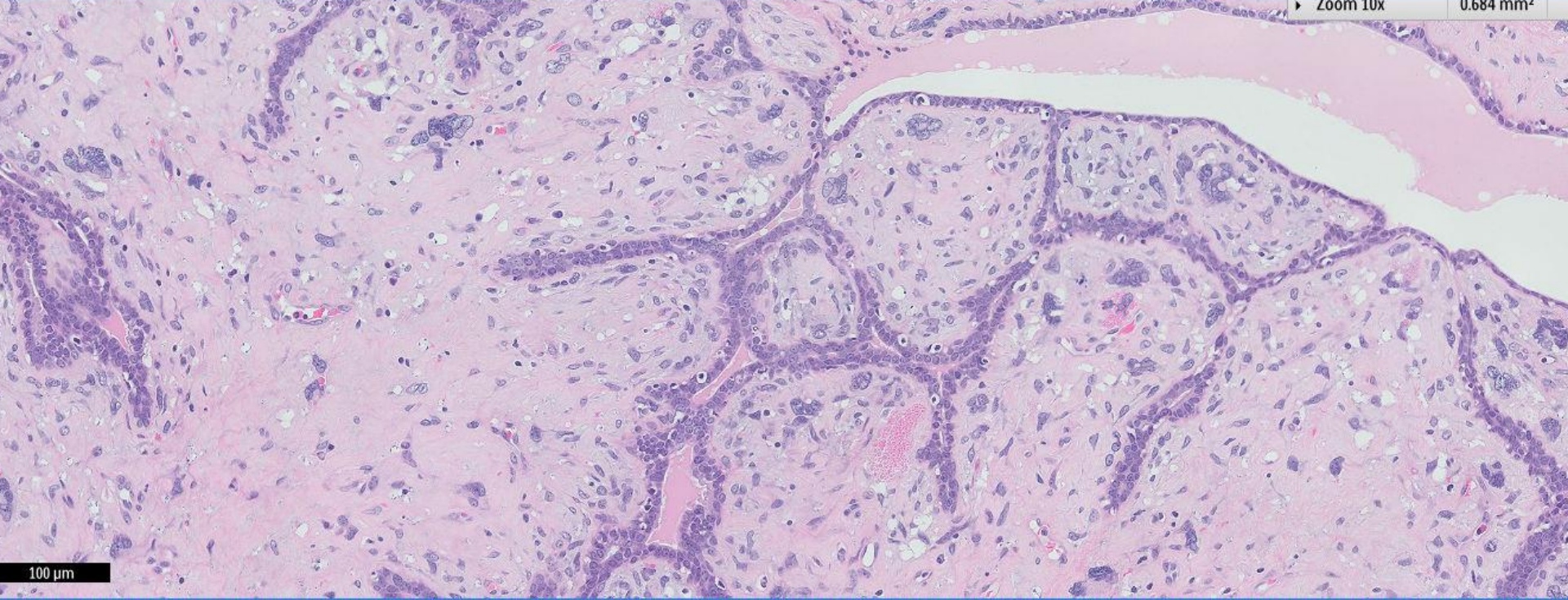
200 μm



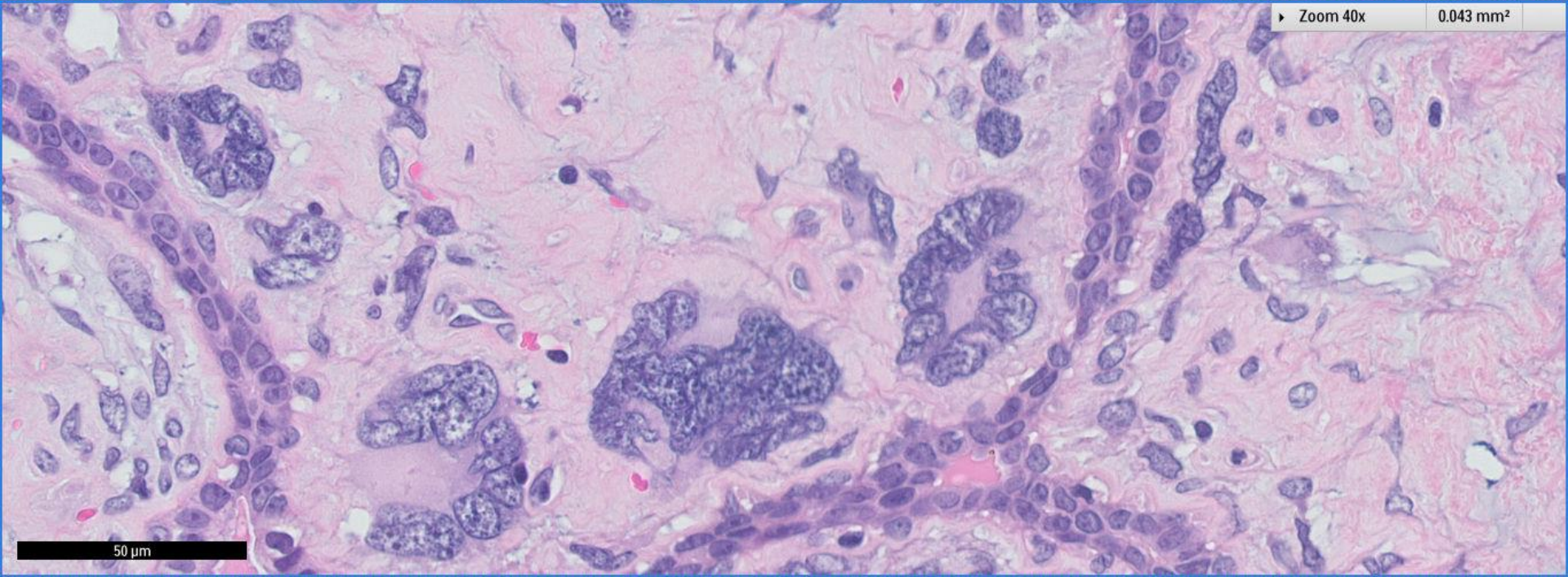
100 μm



50 μm



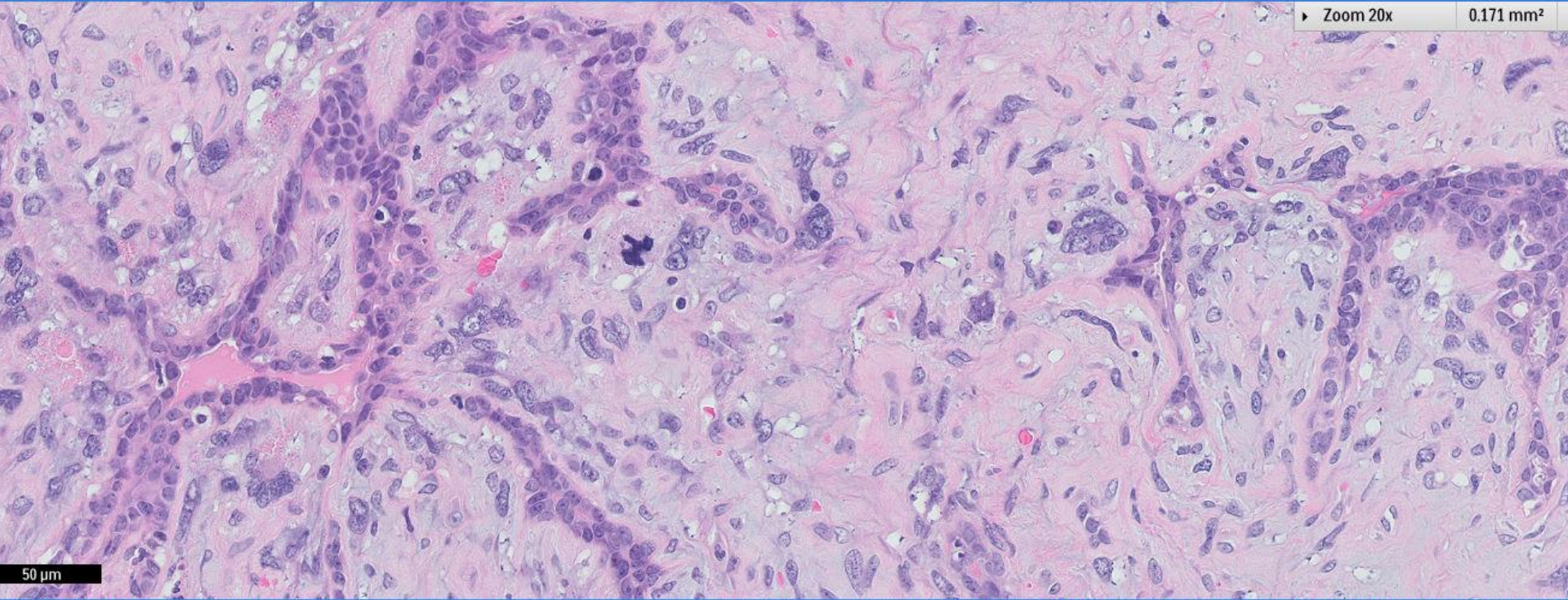
100 μ m



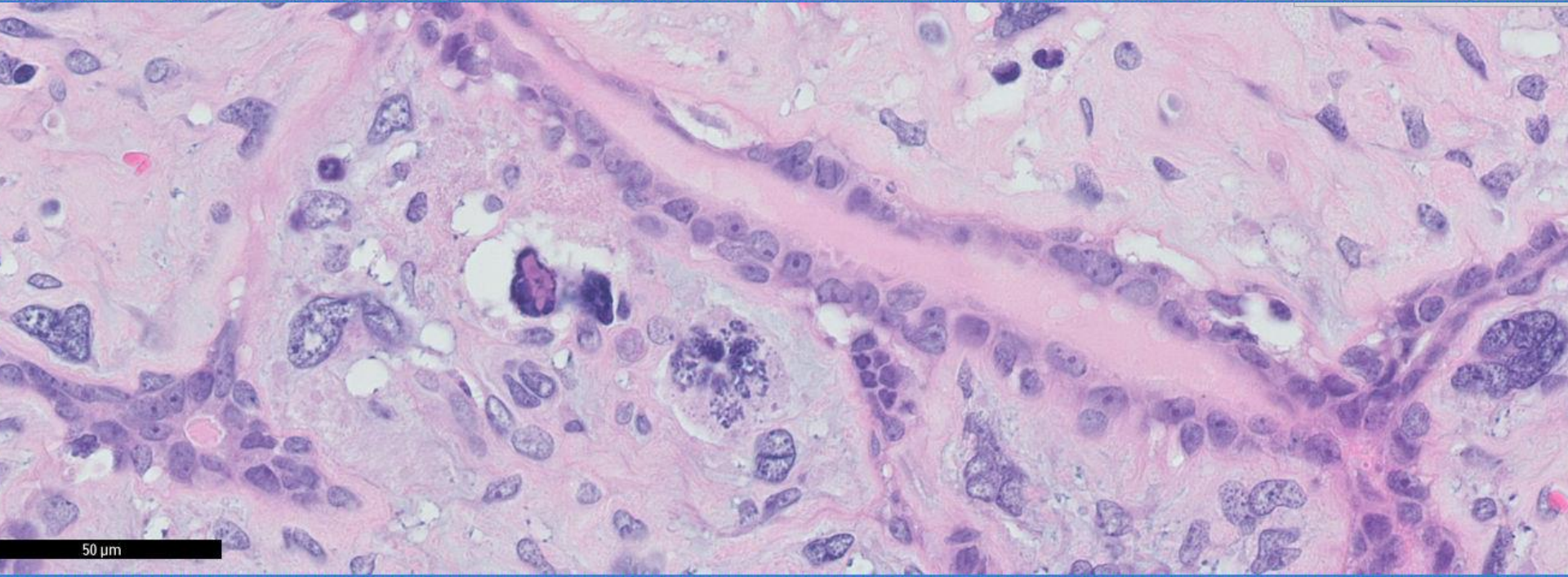
50 μ m

Merlion, One Fullerton Singapore





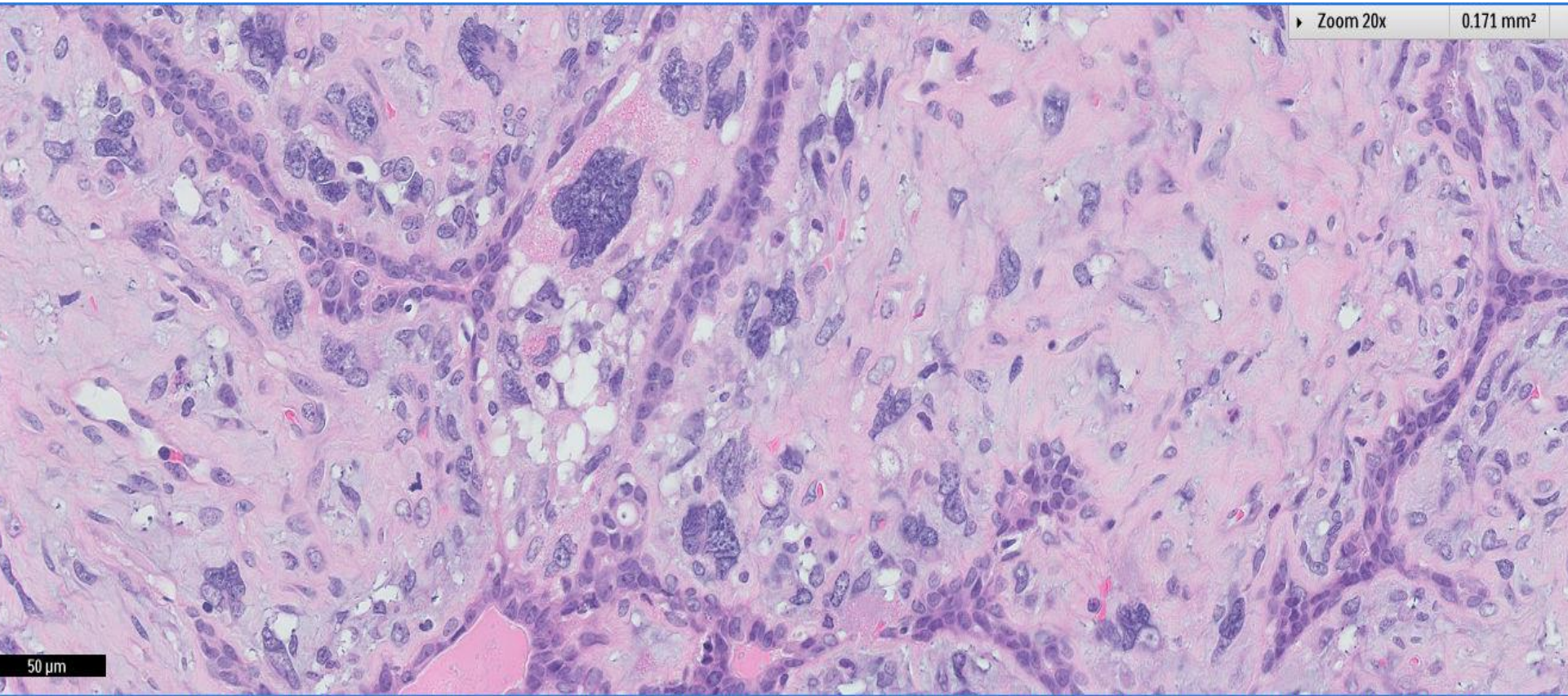
50 μm



50 μm

▶ Zoom 20x

0.171 mm²



50 μm

Diagnosis

Right breast lump, 10 o'clock excision ~

***Phyllodes tumour with stromal giant cells,
graded as a benign phyllodes tumour***



Singapore
General Hospital

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ACADEMIC MEDICAL CENTRE
PATHOLOGY



Stromal multinucleated cells in breast fibroepithelial tumours

- The stroma of breast fibroepithelial tumours (fibroadenoma, phyllodes tumour) can exhibit multinucleated giant cells.
- Stromal atypia used in the grading of phyllodes tumours does not include that of the multinucleated stromal giant cells.
- Need to be careful however, if the stromal multinucleated giant cells show high grade nuclear changes with mitotic activity.
- A similar multinucleated appearance may be encountered in the nuclei of lipoblasts.

Ann Diagn Pathol. 2009 Aug;13(4):226-32. Epub 2009 May 23.

Fibroepithelial lesions of the breast with pleomorphic stromal giant cells: a clinicopathologic study of 4 cases and review of the literature.

Huo L, Gilcrease MZ.

Pleomorphic stromal giant cells are occasionally found as an incidental finding in breast tissue but are only rarely seen in fibroepithelial lesions. In this report, we describe 4 fibroadenoma-like lesions of the breast with pleomorphic stromal giant cells. Two cases had focal stromal hypercellularity, one of which was with architectural features borderline between a fibroadenoma and a phyllodes tumor, but none was considered diagnostic of phyllodes tumor. One lesion had up to 4 mitotic figures per 10 high-power fields, including rare atypical mitotic figures. The remaining 3 cases lacked mitotic activity. Follow-up for 3 cases at 16 to 59 months revealed no evidence of tumor recurrence. The fourth case was lost to follow-up. It appears that the **presence of pleomorphic stromal giant cells in an otherwise benign fibroepithelial lesion has no adverse clinical significance**. The clinicopathologic features of each case are discussed, and a review of the literature is provided.

Pathology. 2001 May;33(2):153-6.

Multinucleated stromal giant cells in mammary phyllodes tumours.

Tse GM, Law BK, Chan KF, Mas TK.

Mammary phyllodes tumour (PT) is an uncommon fibroepithelial neoplasm with a prominent stromal component. We report five cases of PT (one benign, three borderline, one malignant) with giant cells in the stroma. All occurred in adults and ranged from 1.8 to 4.0 cm in size. The overall cellularity, stromal cell pleomorphism and mitotic count was higher for the malignant and borderline than the benign PT. The giant cell number ranged from 18 to 35 cells per 10 high power fields, but there was no relationship between this number and the grade of the PT. Most giant cells were subepithelial, with multiple nuclei arranged in a linear or irregular pattern, and moderate amount of cytoplasm. The immunohistochemical profile of the giant cells was similar to the stromal cells. In all cases, both giant cells and stromal cells expressed vimentin strongly but not desmin; in two cases, both cell populations expressed actin weakly. The respective percentage of giant cells and stromal cells expressing MIB1 was also similar. This suggests that **these giant cells do not represent a different, more active stromal population, despite the more bizarre appearance. In view of the small number of cases, the significance of such giant cells on the prognosis of PT remains uncertain.**

Arch Pathol Lab Med. 1994 Sep;118(9):912-6.

Multinucleated stromal giant cells in mammary fibroepithelial neoplasms. A study of 11 patients.

Powell CM(1), Cranor ML, Rosen PP.

Multinucleated stromal giant cells (MSGCs) found in otherwise-banal breast tissue have only rarely been mentioned in specific lesions. We describe unilateral fibroepithelial tumors with MSGCs in 11 women who were 23 to 60 years old (mean age, 42 years). The tumors ranged from 1.7 to 9.0 cm in greatest dimension (mean, 3.7 cm) and were classified on the basis of stromal cellularity, infiltration at the margin, cellular pleomorphism, and mitoses independently of MSGCs. Using these criteria, there were four fibroadenomas, one benign cystosarcoma, and four low-grade and two high-grade malignant cystosarcomas. The MSGCs had hyperchromatic or vesicular nuclei, many with clear nuclear inclusions. The nuclei were often arranged in a semicircular or florette pattern. The MSGCs, although widely distributed, tended to cluster. They accounted for most of the stromal cellularity in the fibroadenomas, numbering focally up to 10 per high-power field. The benign and low-grade malignant cystosarcomas had fewer MSGCs. The MSGCs contributed least to the cellularity in the high-grade cystosarcomas. Five patients had no further therapy. Five patients underwent wide excision and one patient had a mastectomy. Follow-up extended to 8 years (median follow-up, 4 years). There were no recurrences, and all patients were alive with no evidence of disease. The results of this study lead us to conclude that the **diagnosis and grading of fibroepithelial tumors of the breast depend on the cellularity and pleomorphism of the stroma, exclusive of MSGCs.** **Cystosarcomas that have MSGCs do not have an especially malignant clinical course.**

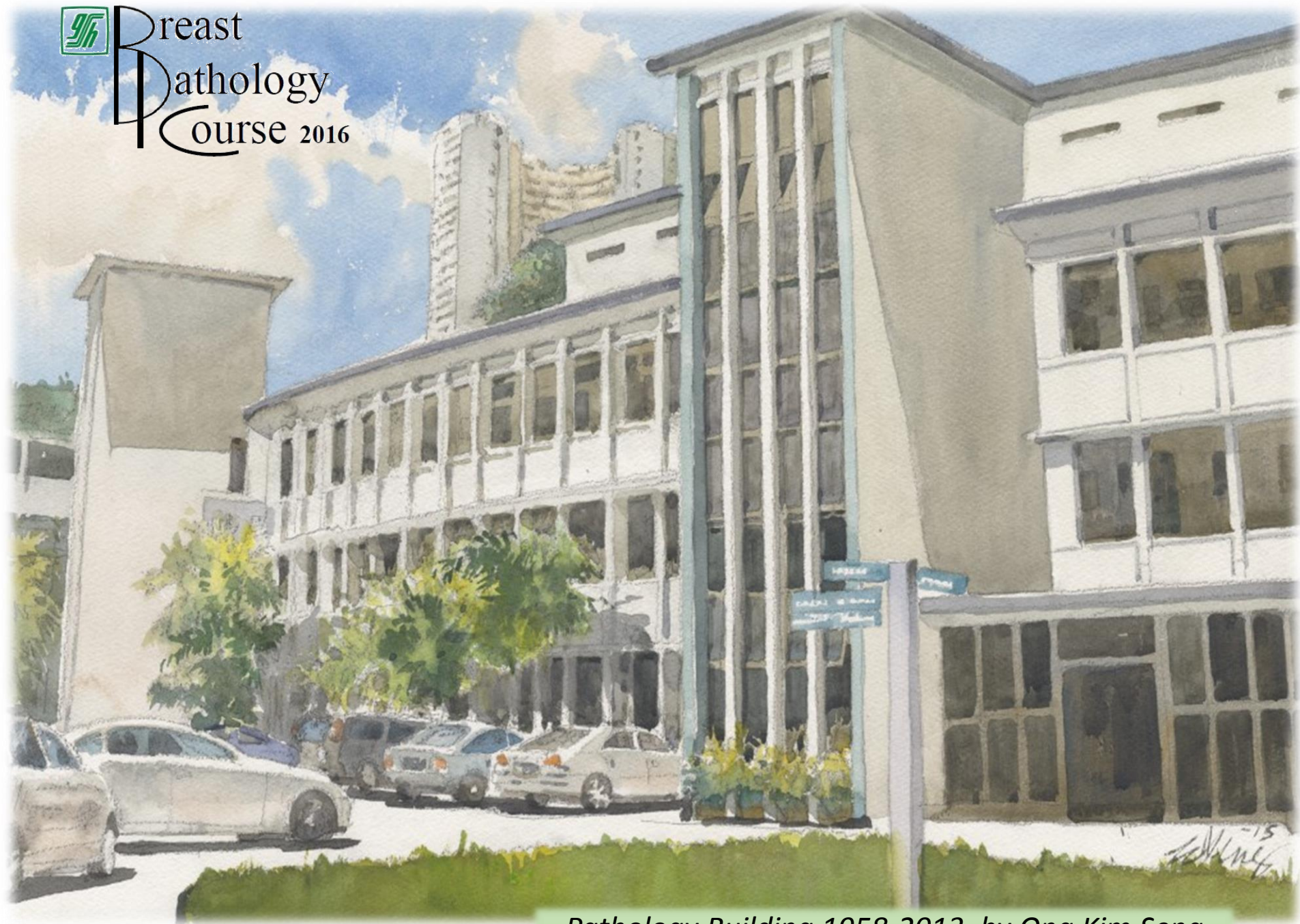
Am J Surg Pathol. 1986 Nov;10(11):823-7.

Mammary fibroadenoma with multinucleated stromal giant cells.

Berean K, Tron VA, Churg A, Clement PB.

We have studied an otherwise typical mammary fibroadenoma in a 42-year-old female in which numerous, bizarre, mitotically inactive, multinucleated giant cells were present throughout the stroma. Immunohistochemical and ultrastructural studies confirmed the mesenchymal, specifically fibroblastic, nature of the giant cells. **Cells of this type, which are more commonly an incidental finding within the interlobular stroma of the breast, are benign, and should not be mistaken for malignant cells on microscopic examination.**

 Breast
Pathology
Course 2016



Pathology Building 1958-2013, by Ong Kim Seng