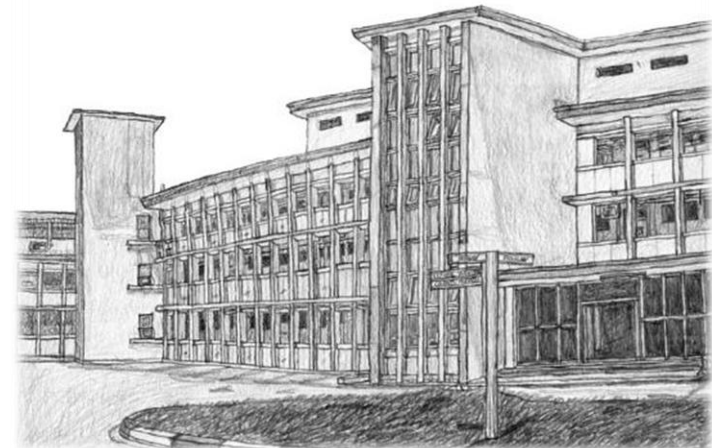


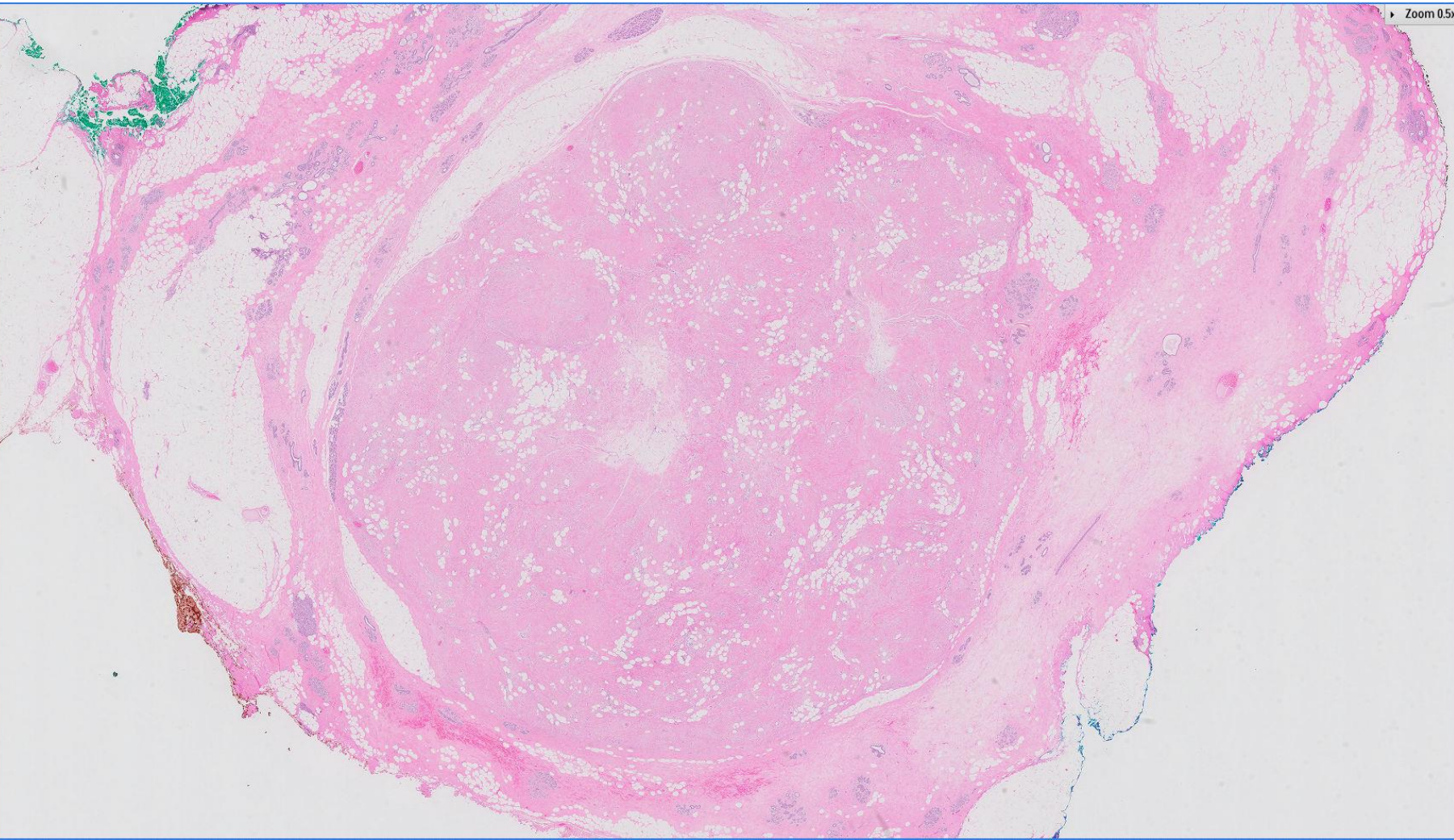
Case 26

51 year old female.

Right breast 9 o'clock lump. Excision biopsy performed.

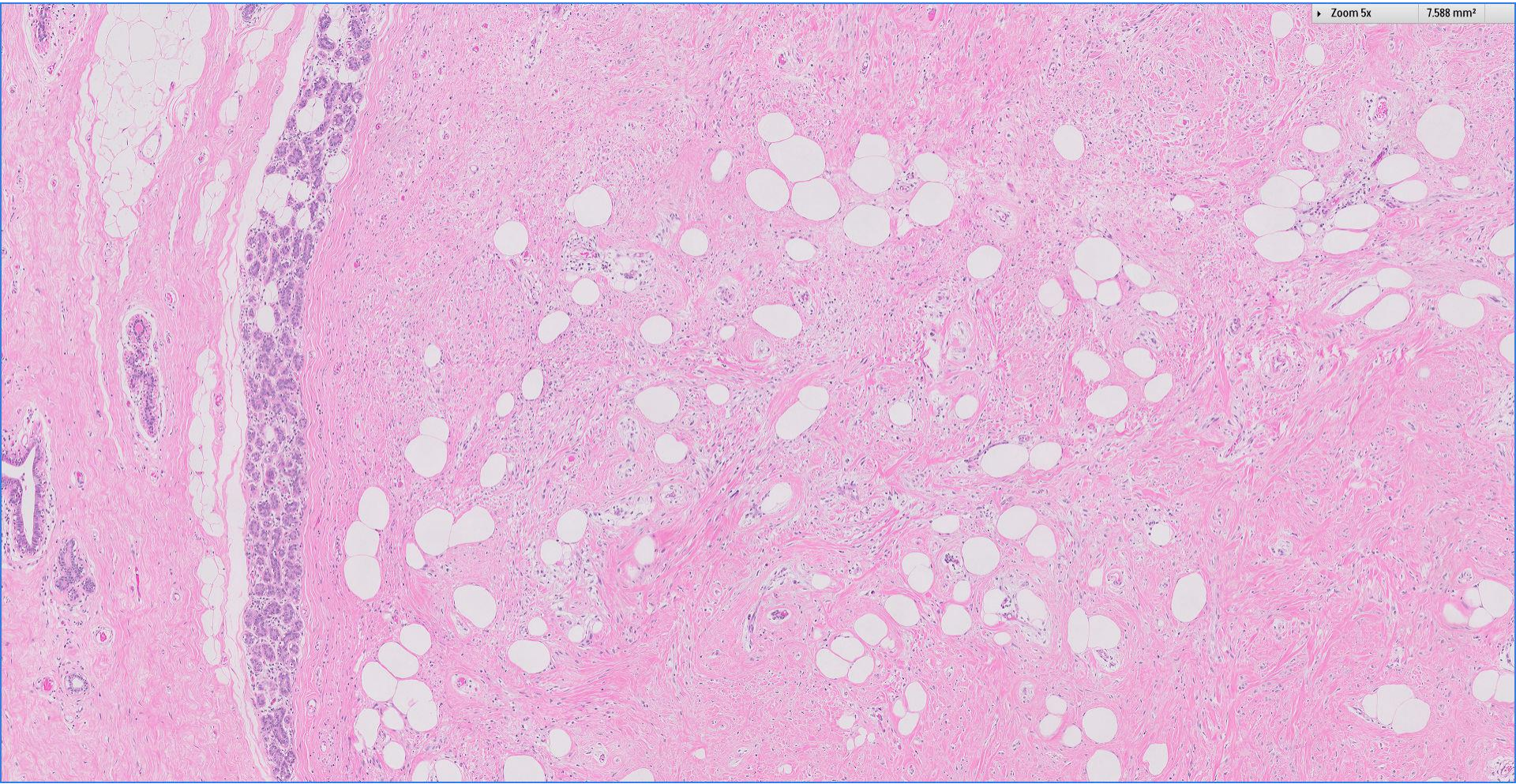
Case contributed by Dr Mihir Gudi, Singapore





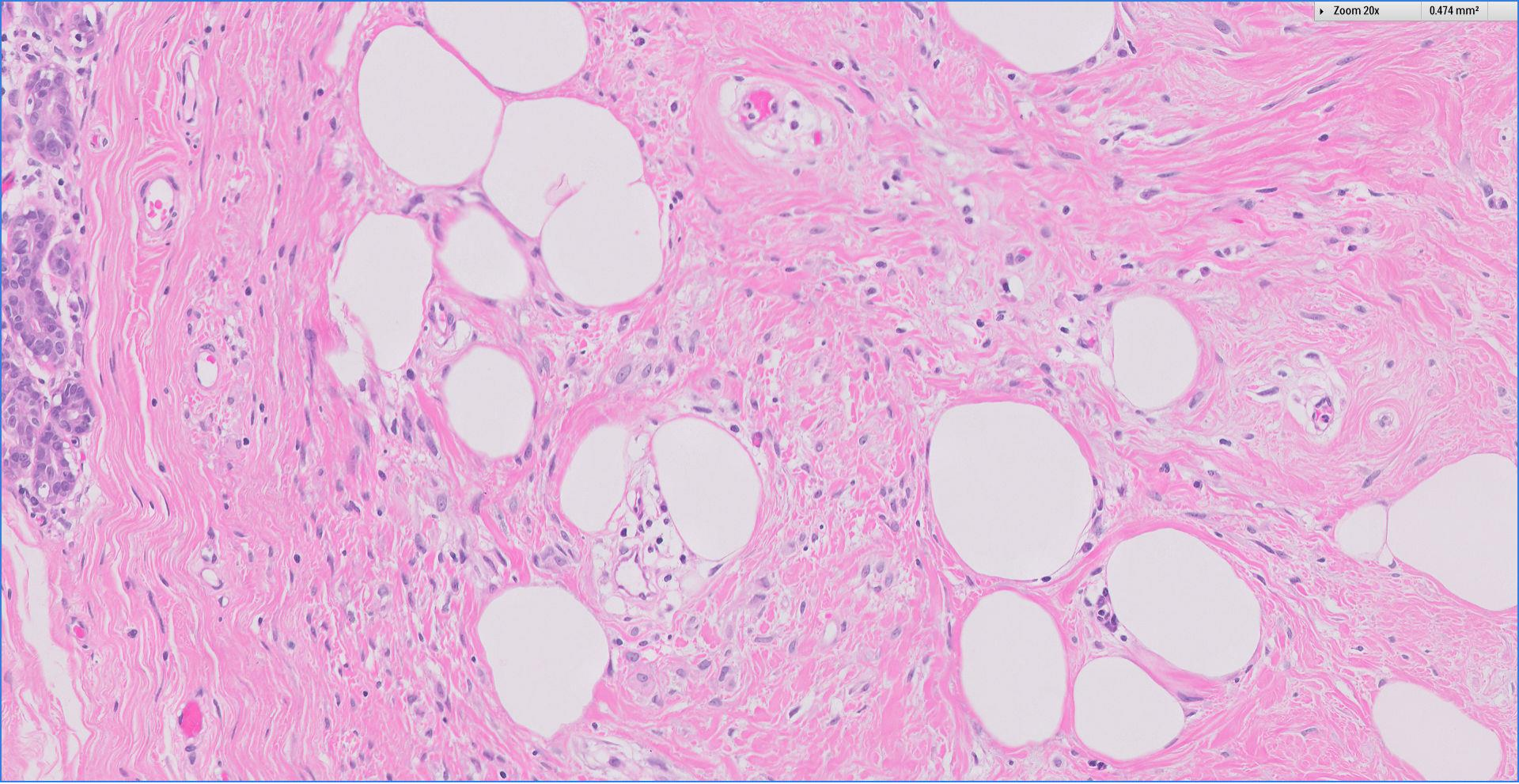
Zoom 5x

7.588 mm²



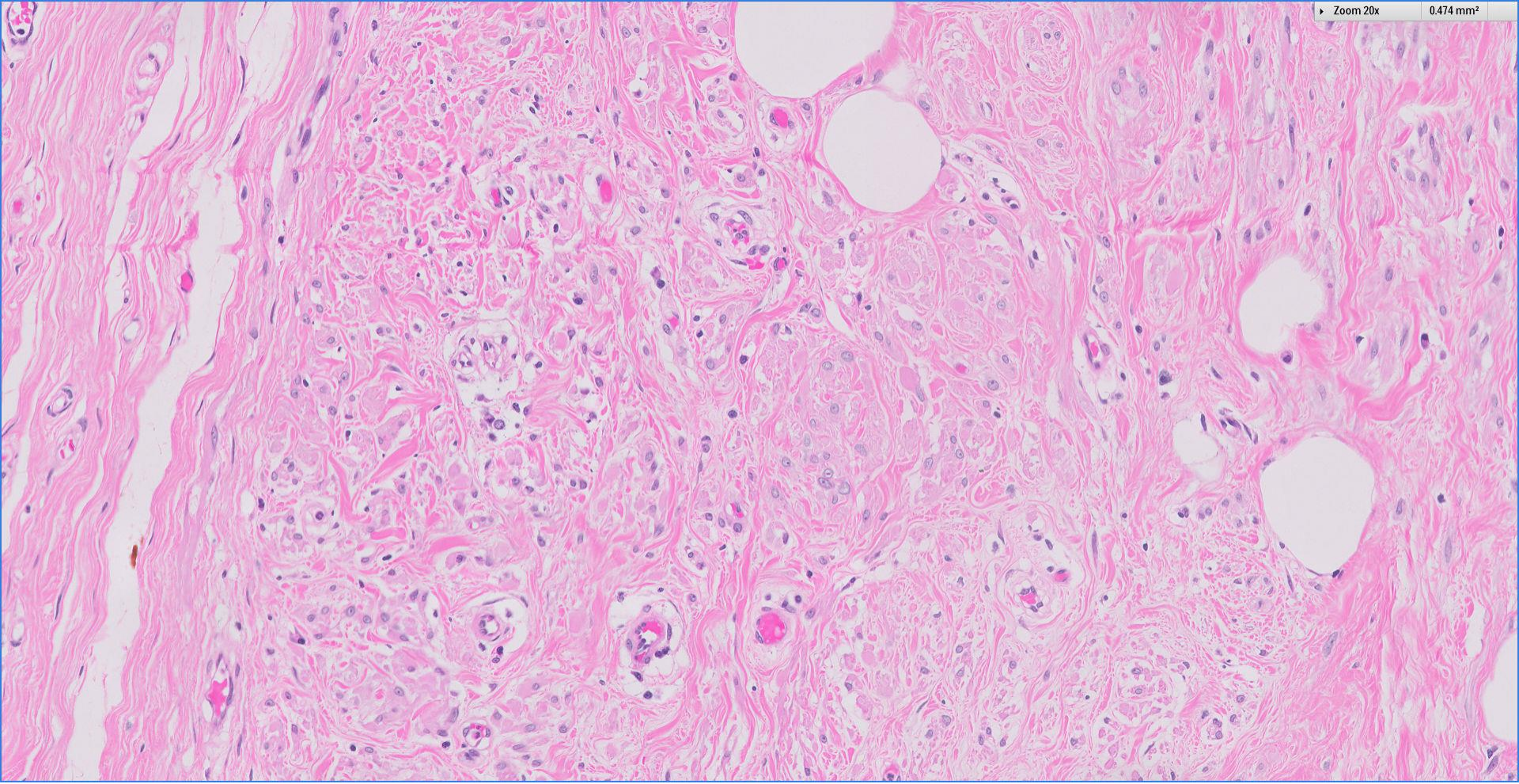
Zoom 20x

0.474 mm²



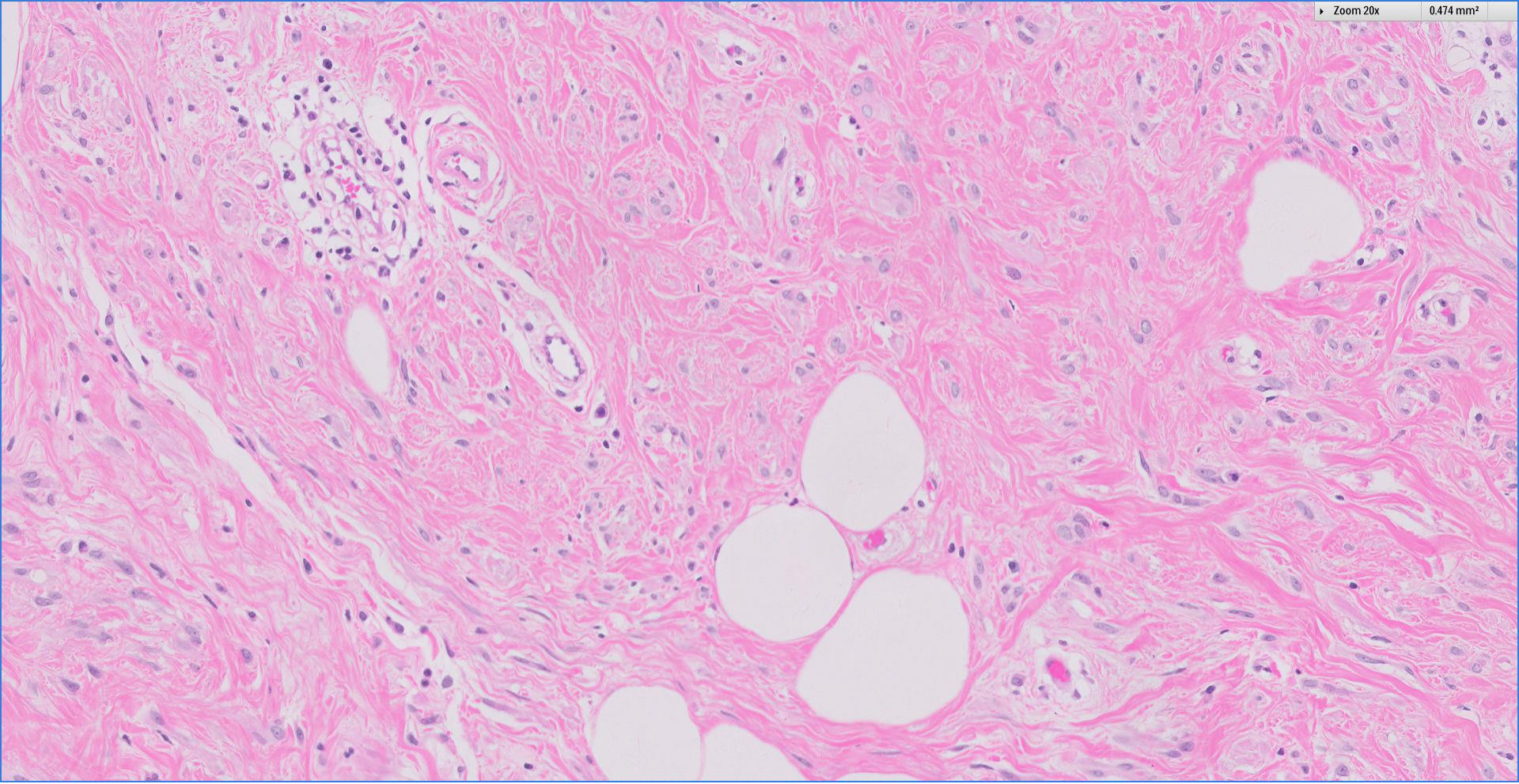
Zoom 20x

0.474 mm²

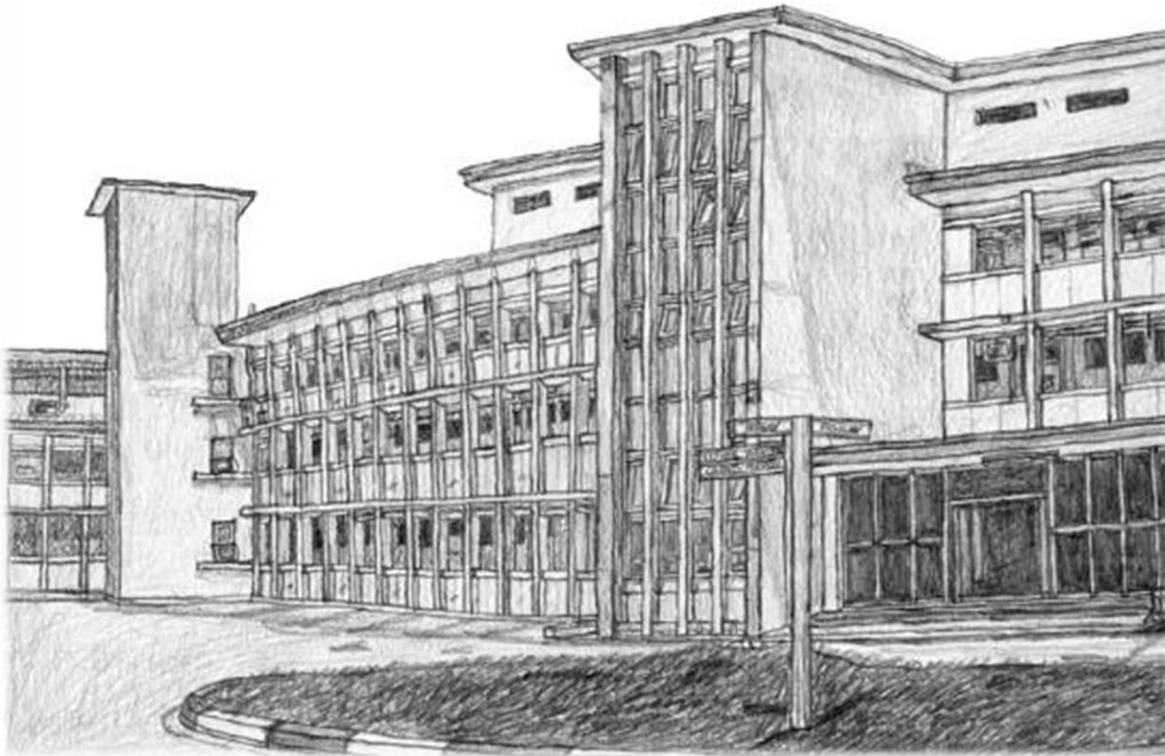


Zoom 20x

0.474 mm²



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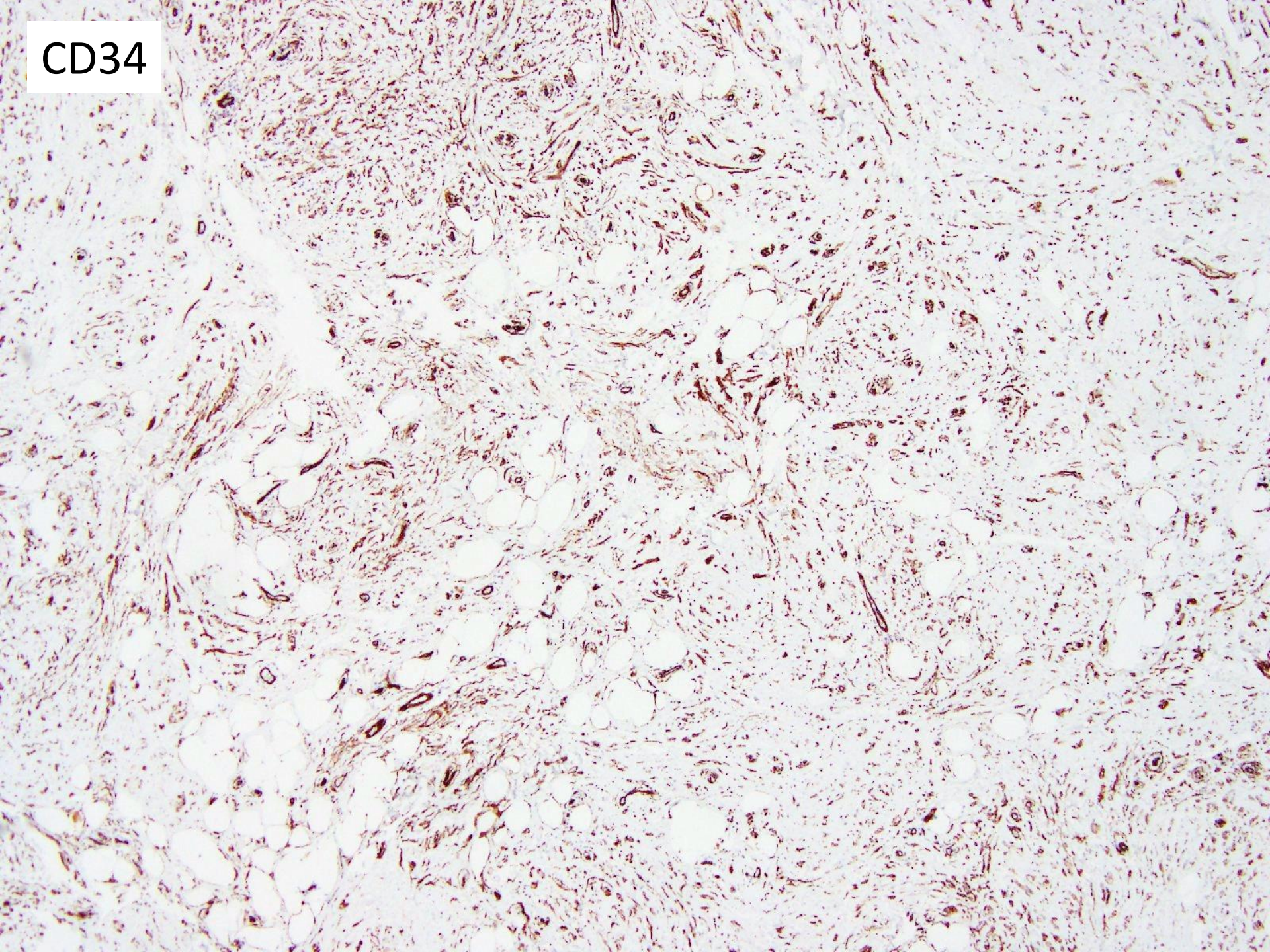


Singapore
General Hospital
SingHealth
Division of Pathology

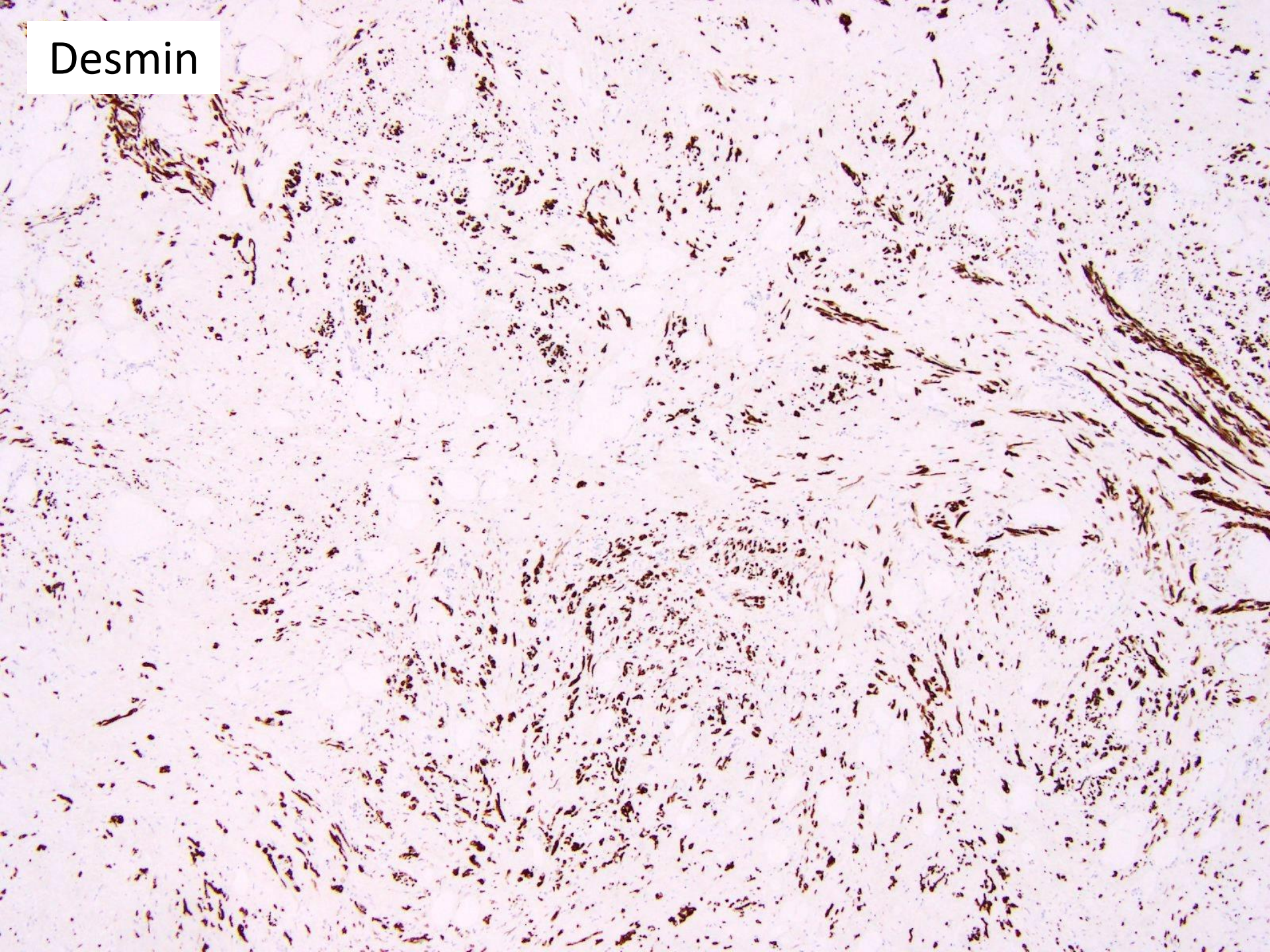

SingHealth DukeNUS
ACADEMIC MEDICAL CENTRE
PATHOLOGY



CD34

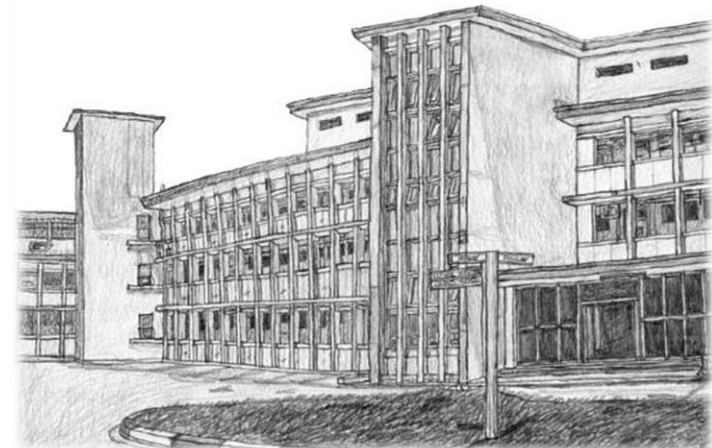


Desmin



Diagnosis

Myofibroblastoma



Myofibroblastoma

- Benign tumour of the mammary stroma composed of fibroblasts and myofibroblasts.
- Presents as a solitary slowly growing nodule.
- Imaging shows a well-circumscribed, homogeneously solid mass devoid of microcalcifications.
- Bilaterality and multicentricity have been observed rarely.
- Grossly comprises an unencapsulated & well-circumscribed mass.

Myofibroblastoma

- Wide morphological spectrum, often resembling spindle cell lipoma.
- It is usually composed of spindle to oval cells arranged in short, haphazardly intersecting fascicles interrupted by thick bands of brightly eosinophilic collagen.
- Most cases contain a variably prominent adipocytic component.
- Some cases may exhibit high cellularity, atypical cells, infiltrative margins, prominent epithelioid/deciduoid-like cells, and extensive myxoid or fibrous stromal changes.
- Smooth-muscle, cartilaginous or osseous metaplasia may be focally evident.

Myofibroblastoma

- Cells have relatively abundant, pale to deeply eosinophilic cytoplasm with round to oval nuclei each containing one or two small nucleoli.
- Necrosis is usually absent.
- Mitoses are only rarely observed (up to 2 mitoses per 10 high-power fields).
- Usually no entrapment of mammary ducts or lobules within the tumour.

Myofibroblastoma ~ immunohistochemistry

- CD34, desmin positive.
- Variable positivity for alpha-smooth muscle actin, BCL2, CD99, CD10, hormone (estrogen, progesterone) and androgen receptors.
- H-caldesmon expression is described in 2–10% of myofibroblastoma cells when there is smooth-muscle differentiation.

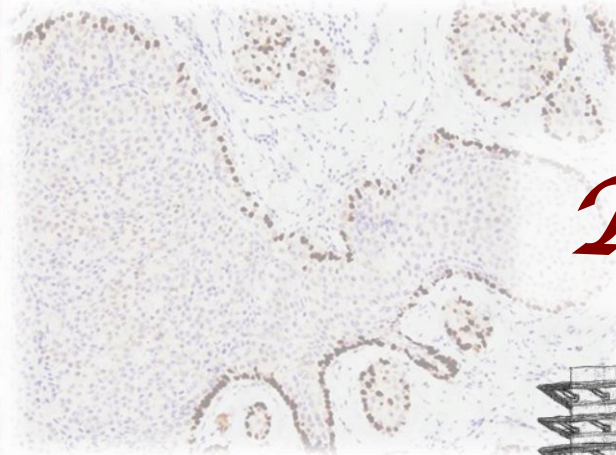
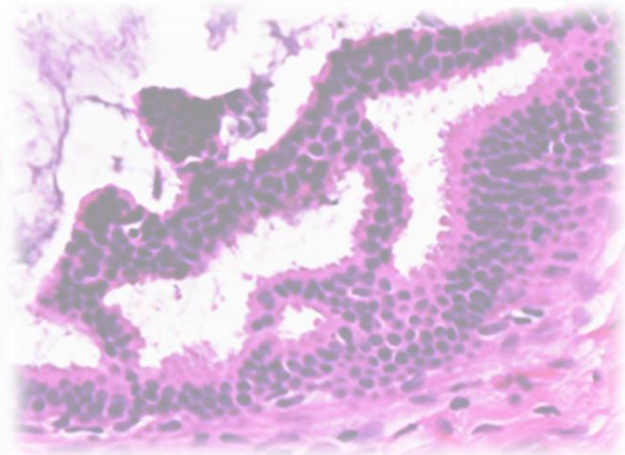
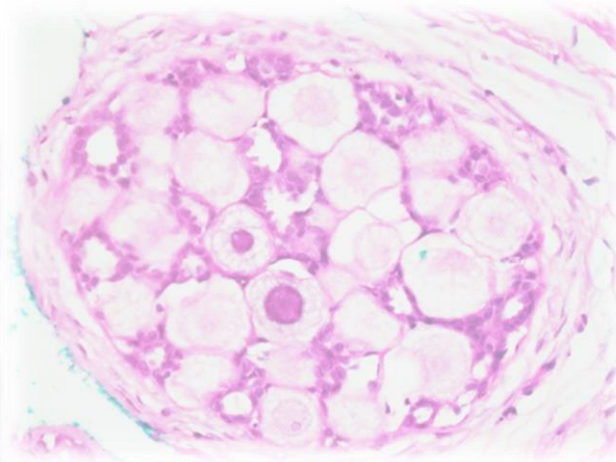
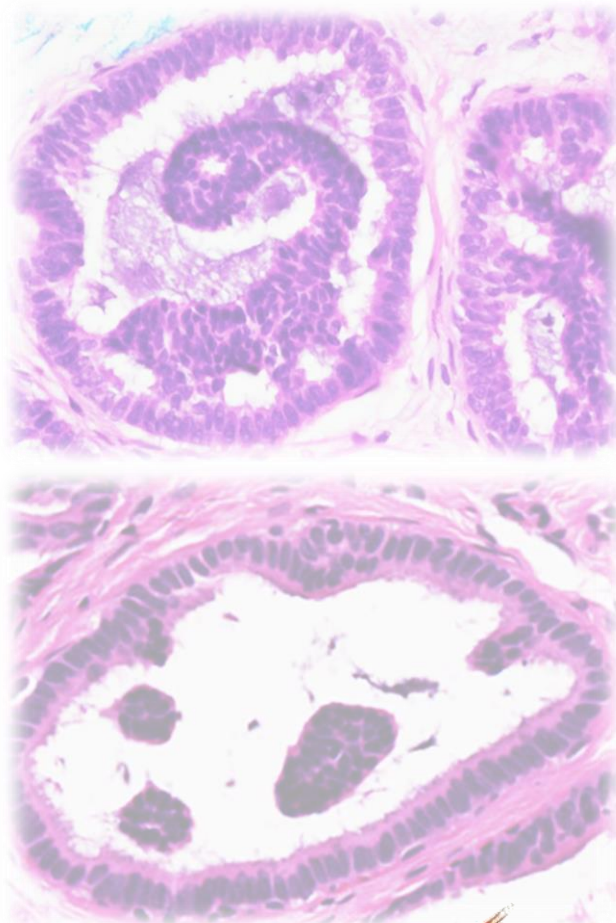
Myofibroblastoma ~ differential diagnosis

- Nodular fasciitis, fibromatosis, leiomyoma, spindle cell metaplastic carcinoma, and the rare myofibrosarcoma.
- Epithelioid-cell variant of myofibroblastoma may be confused with **infiltrating lobular carcinoma**, especially since both tumours express hormone receptors.
- Deciduous features are another potential diagnostic pitfall.
- Beware of resemblance to malignancy especially on core biopsies.

Myofibroblastoma

- Part of the same spectrum as spindle cell lipoma, with which it shares the same chromosomal rearrangements affecting region 13q.
- Deletion of chromosome 13q14 may be confirmed by fluorescence in situ hybridization (FISH).
- No recurrent potential after excision.

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Thank you!

