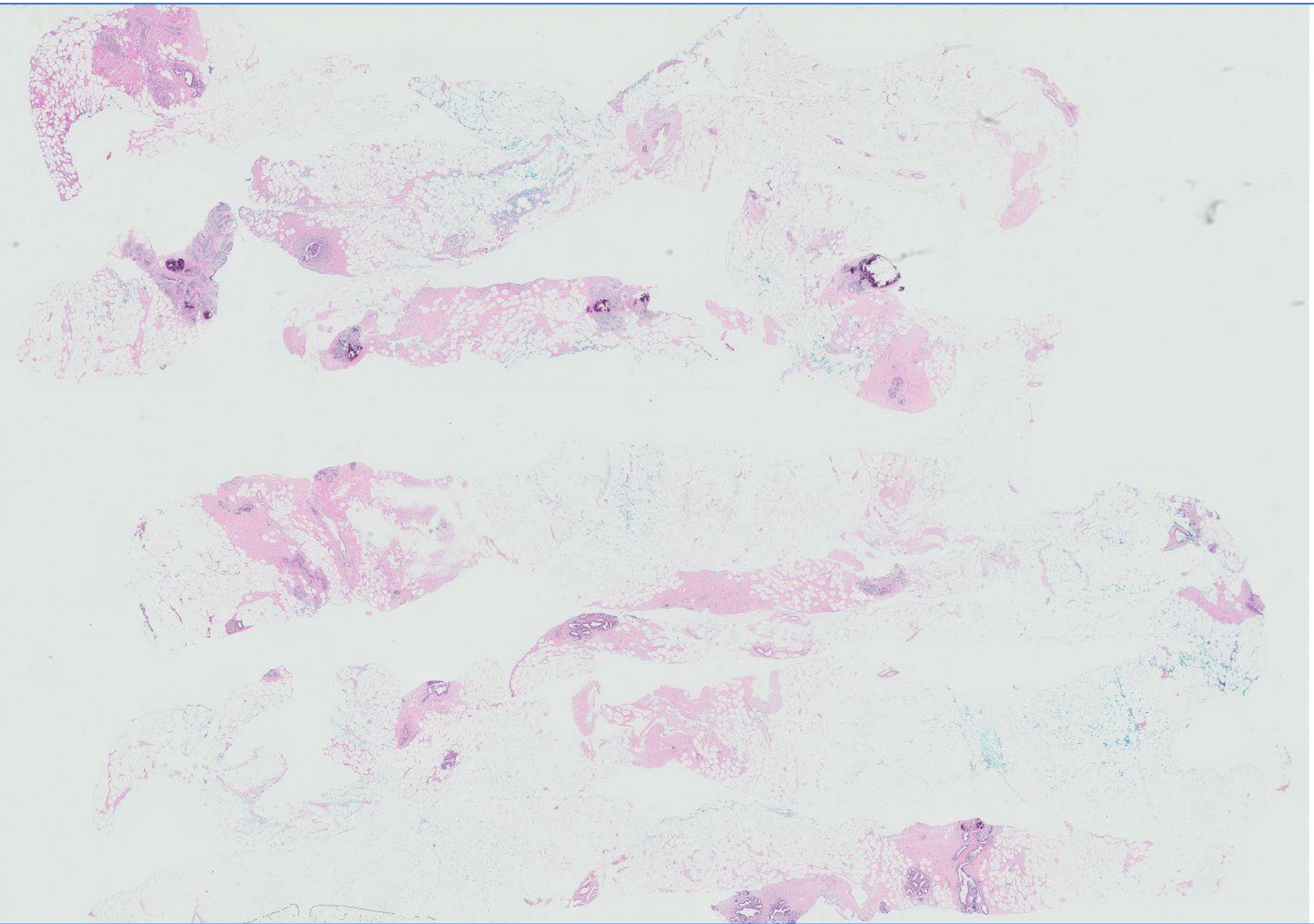


## *Case 2*

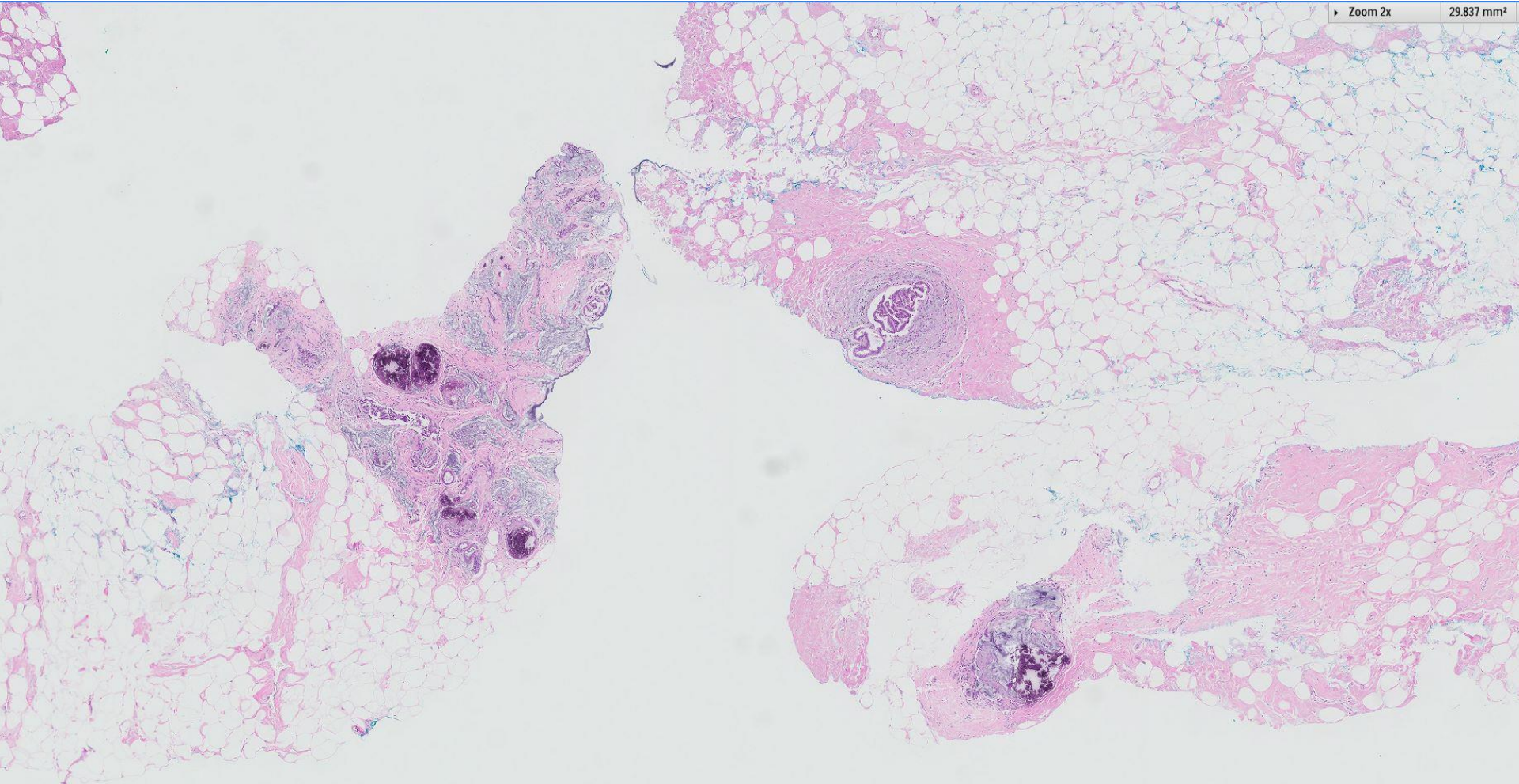
44 year old woman was detected with right breast upper central calcifications on mammography.

Stereotactic mammotome biopsies were carried out.

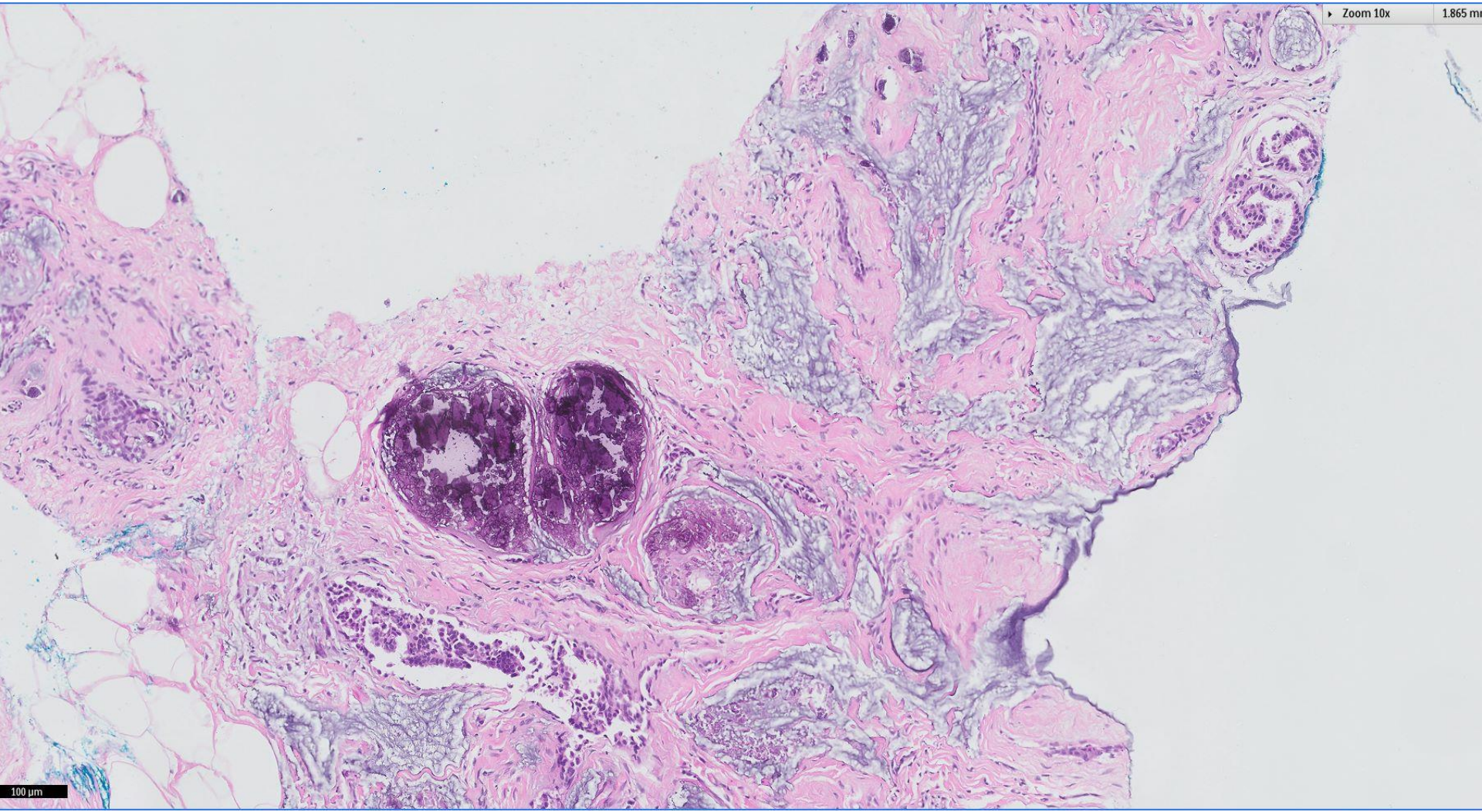












Zoom 10x

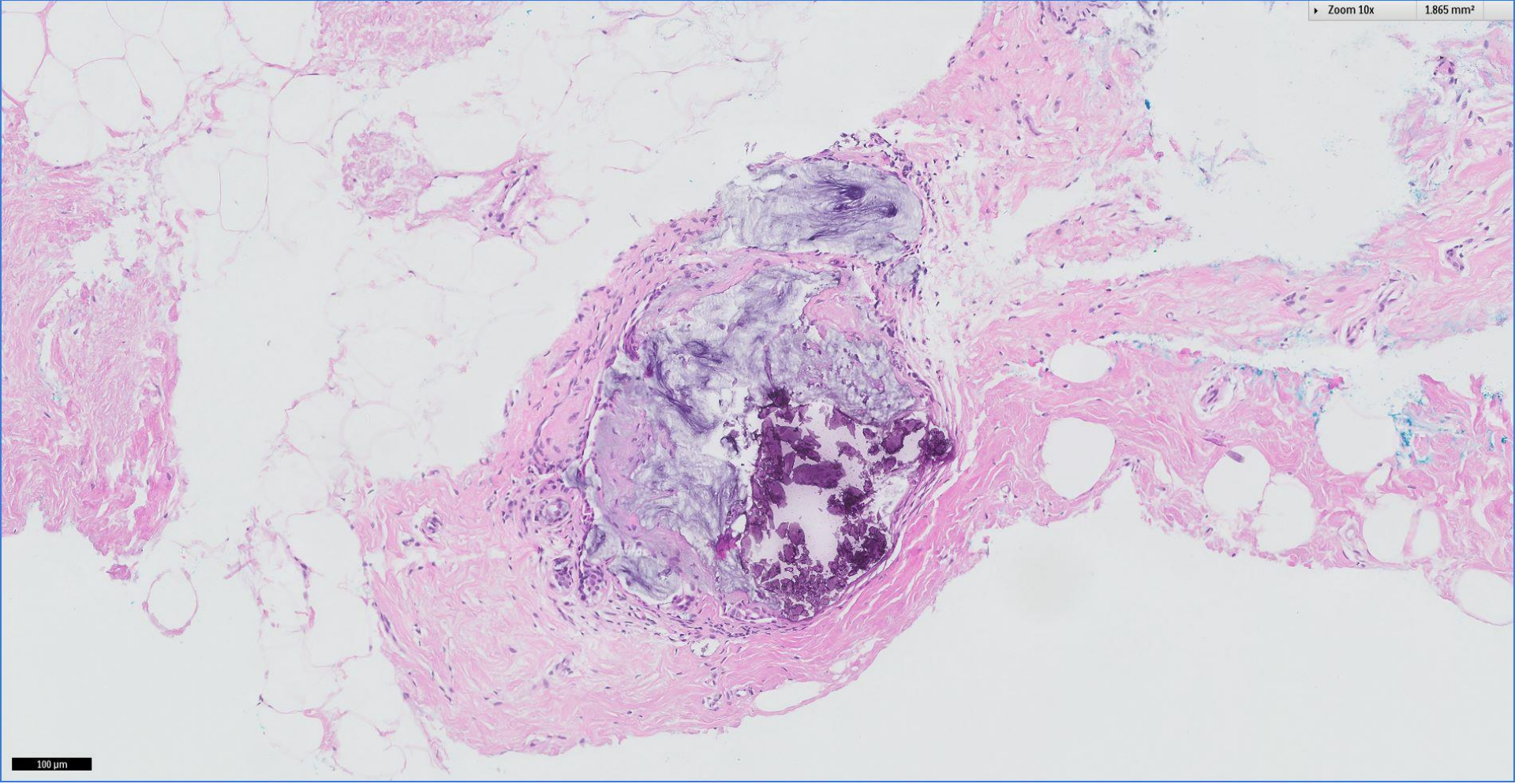
1.865 m

100 μm



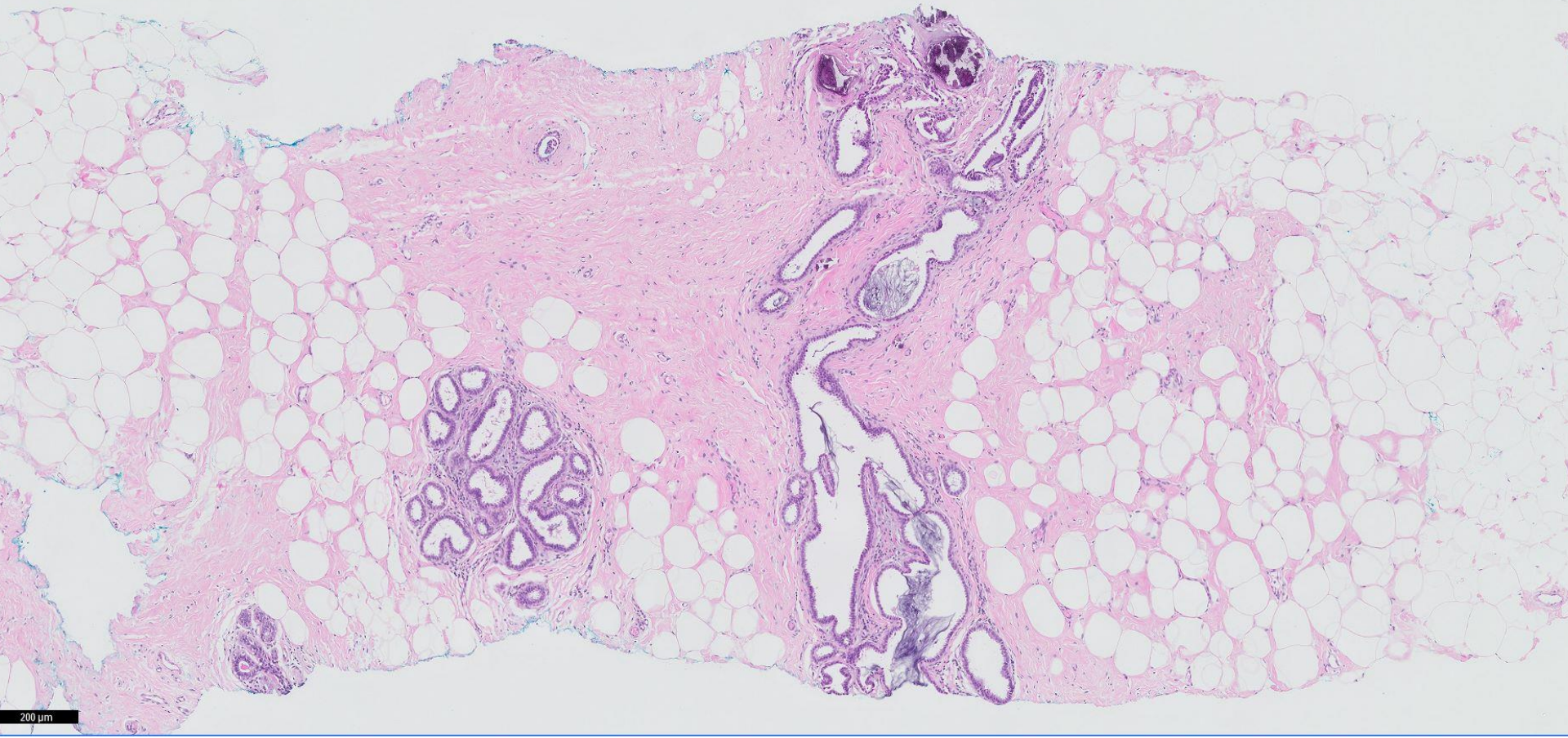
Zoom 10x

1.865 mm<sup>2</sup>



100  $\mu$ m

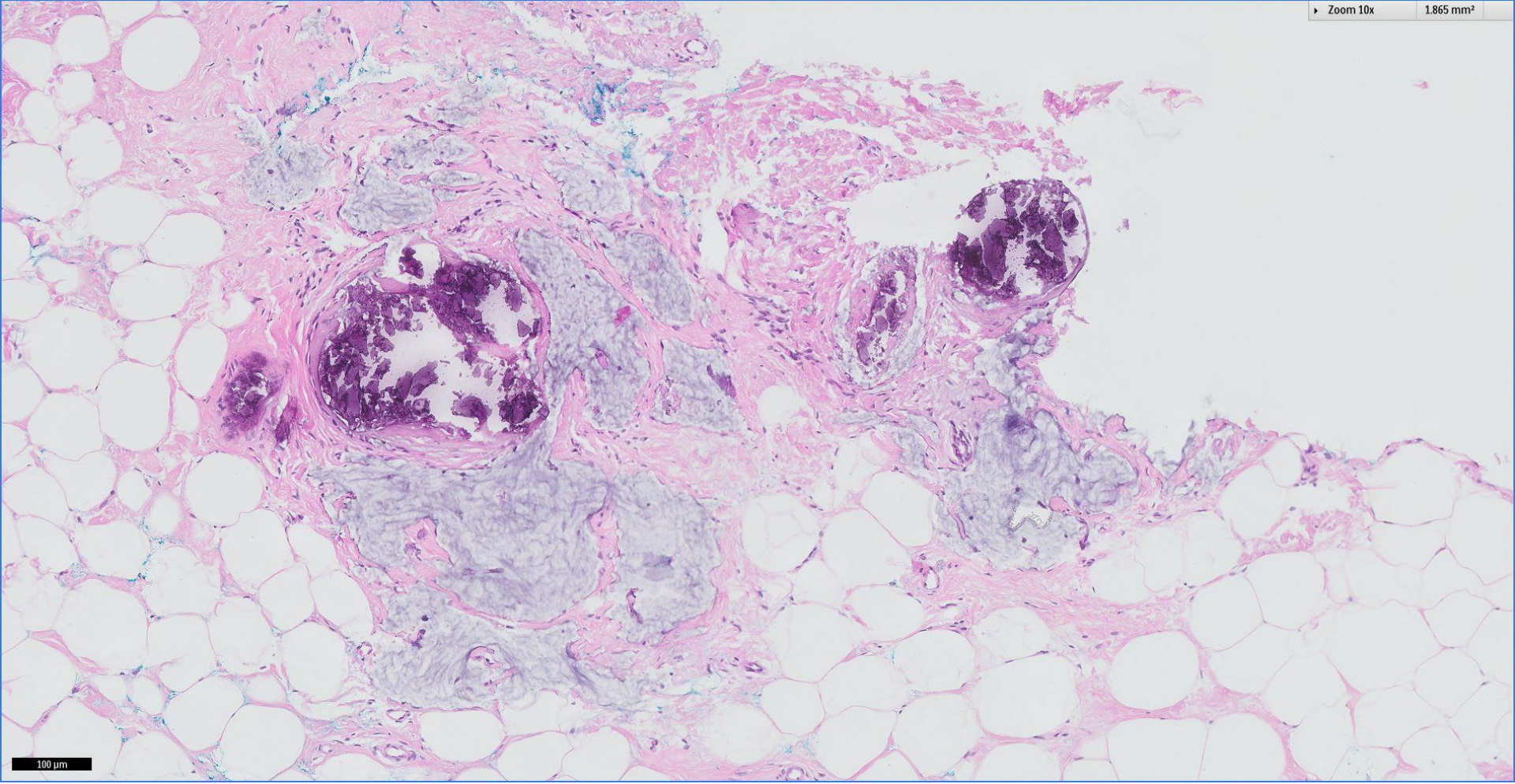








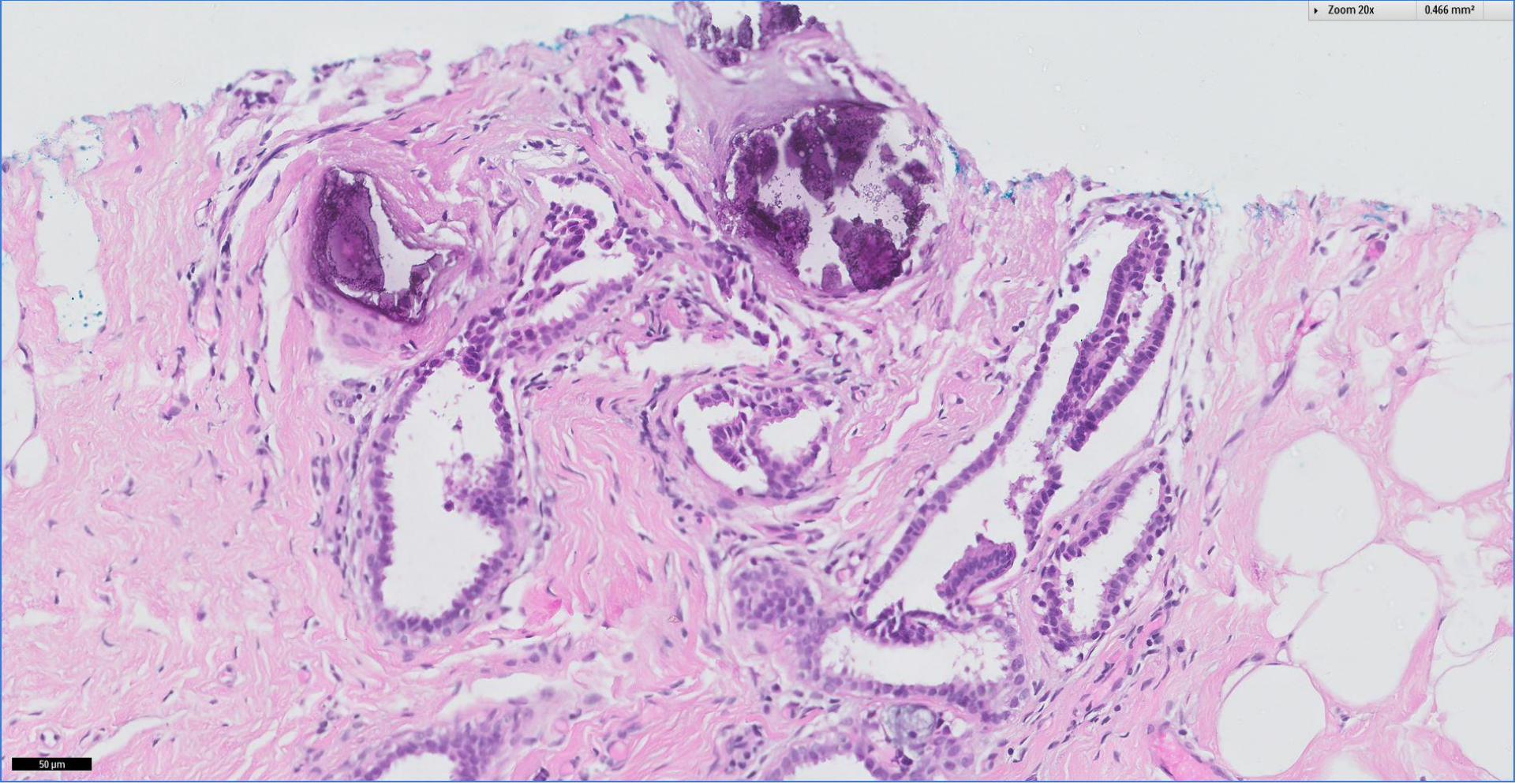






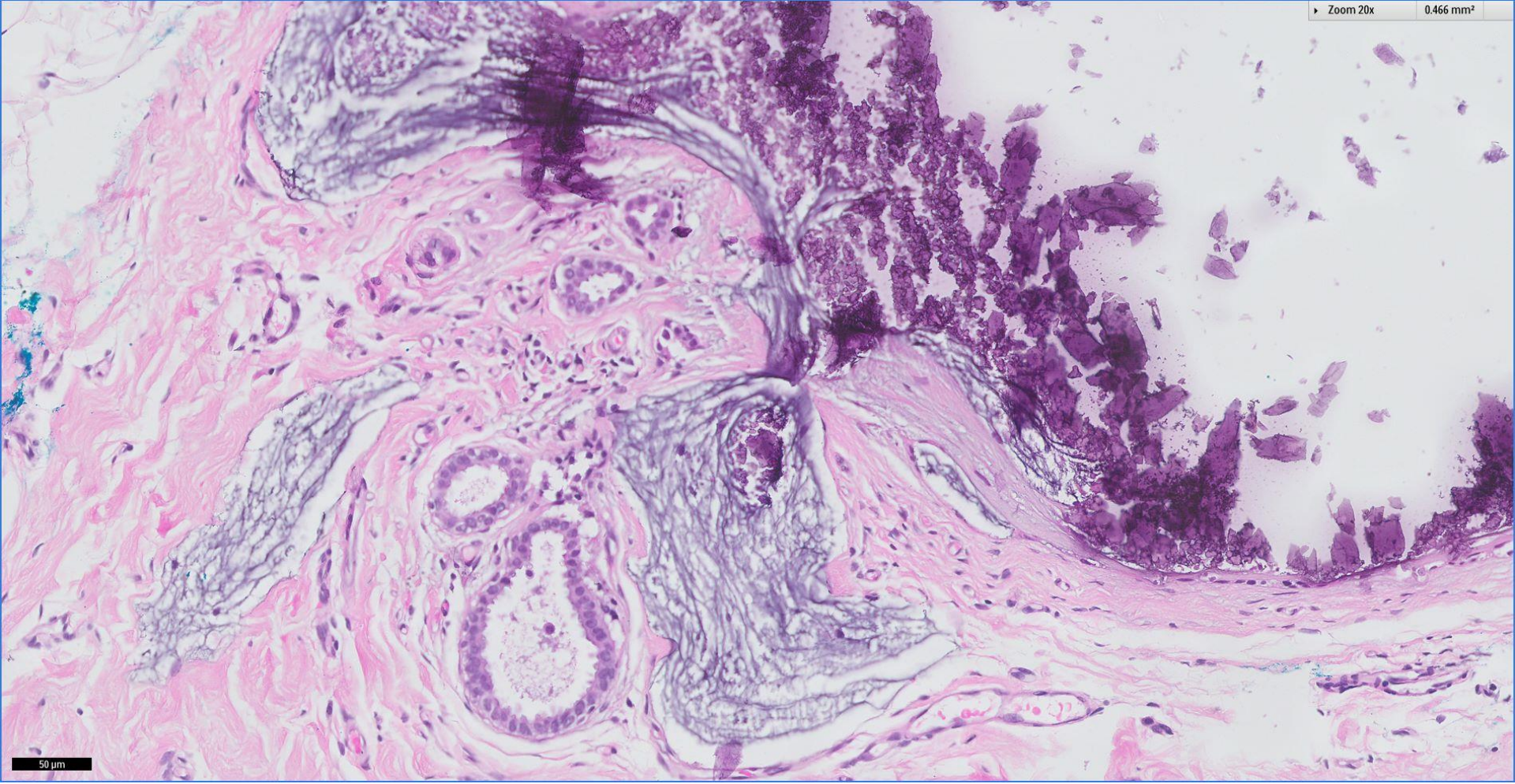
Zoom 20x

0.466 mm<sup>2</sup>



50 μm

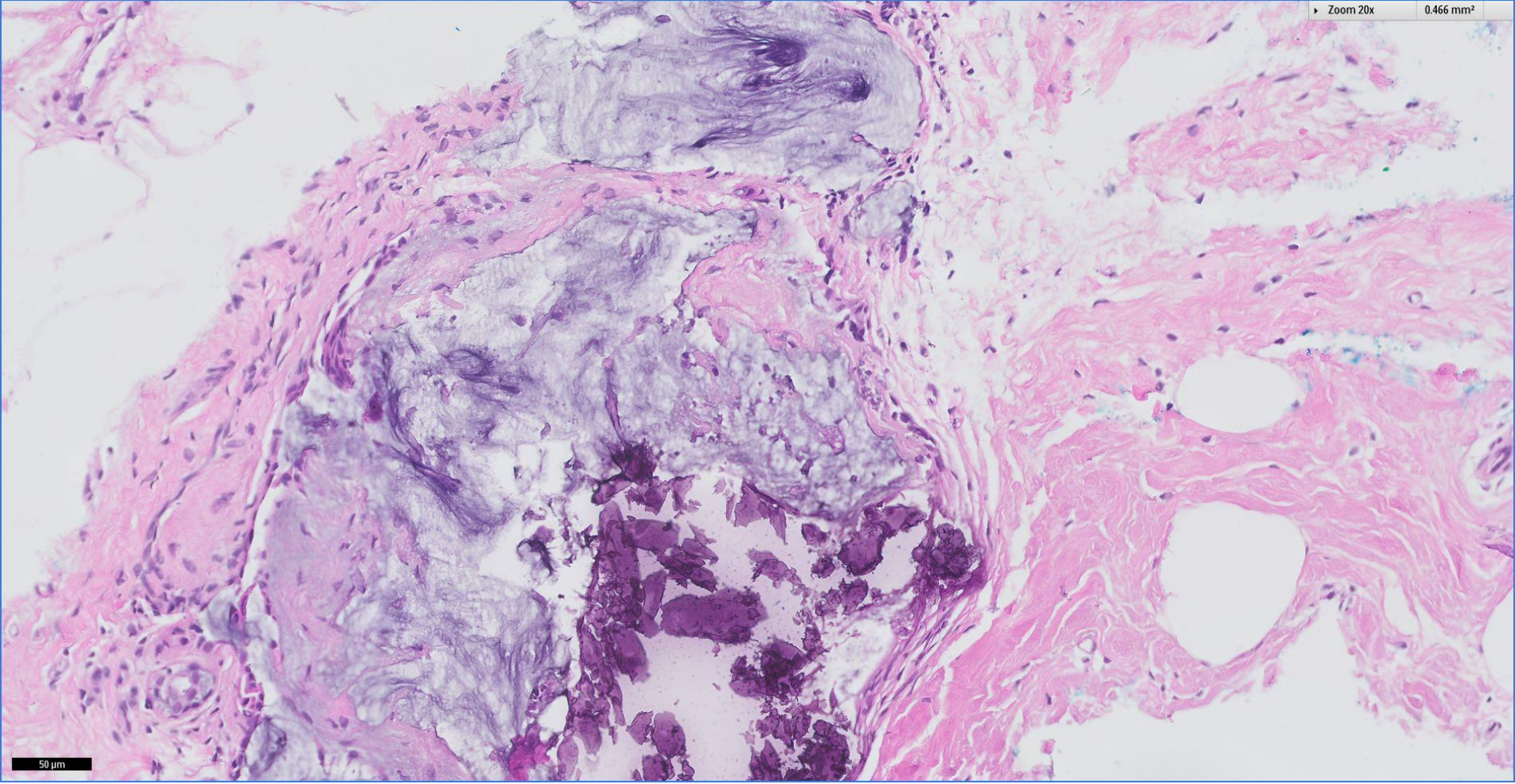






Zoom 20x

0.466 mm<sup>2</sup>



50 μm



Right breast, upper central  
microcalcifications, stereotactic biopsy:

*Mucocele-like lesion with  
calcifications.*





Subsequent right breast open  
excision:

*Fibrocystic changes with an  
intraductal papilloma.  
No malignancy.*





# Mucocele-like lesions (MLL)

- MLL of the breast were first described by Rosen in 1986 as benign lesions analogous to mucoceles of the minor salivary glands.
- MLL are defined as the presence of mucin containing cysts with extravasation into surrounding stroma.
- The term of MLL may encompass benign changes to ADH, DCIS, or mucinous carcinoma.
- Excision is typically recommended in MLL on core biopsy for definitive evaluation.





# Comparison between core biopsy and excision biopsy diagnosis of MLL

Core biopsy diagnosis	Excision biopsy diagnosis			
	FC	FC with ADH	DCIS	Invasive Ca
Mucin pool	0	0	0	1
FC	8	1	0	0
FC with ADH	0	12	1	0
DCIS	0	0	4	0

FC: fibrocystic change

ADH: atypical ductal hyperplasia

DCIS: ductal carcinoma in situ

Ca: Carcinoma

## *Begum et al. Histopathology 2009*

- In biopsies that completely removed the calcifications, no malignancy was found on subsequent excision.
- When the entire radiological abnormality has been removed, excision may potentially be avoided if the core biopsy was benign.





# Previous studies of excision biopsy findings after a core biopsy diagnosis of a MLL

Excision diagnosis after core diagnosis of MLL without atypia

Excision diagnosis after core diagnosis of MLL with atypia

Study	Benign	DCIS	Invasive Ca	Benign	DCIS	Invasive Ca
Deschryver	3					
Renshaw	3			5		
Glazebrook			1	3		
Carder	7				2	1
Ramsaroop	6	1	1	1		
Wang	7			4		
El Sayed	5					
Begum	9		1	12	1	
Ouldamer	5			1		1
Flegg	3					
Jaffer	44				1	
Carkaci	7				1	
Weigel	3					
Rakha	54	2	0			
Total	156	3	3	26	5	2

6/156=4% ← Risk of malignancy → 7/26=21%

*E A Rakha et al. Histopathology 2013*

- If no atypia is present at core biopsy, excision with a vacuum-assisted device after multidisciplinary discussion may be a reasonable alternative to diagnostic surgical excision.





 Breast  
Pathology  
Course 2014

