Case1

- 60 year female microcalcifications in the left breast.

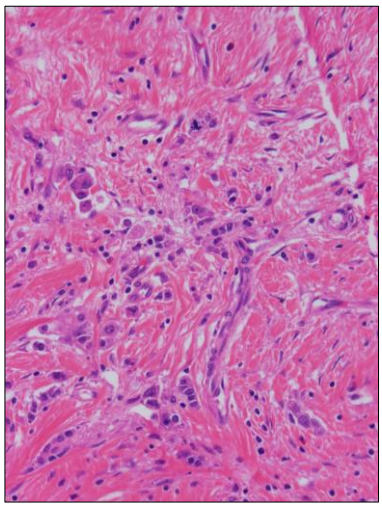
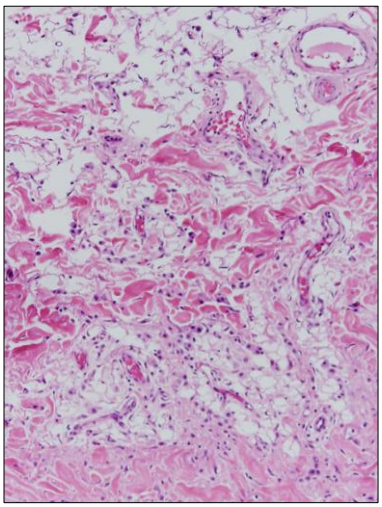
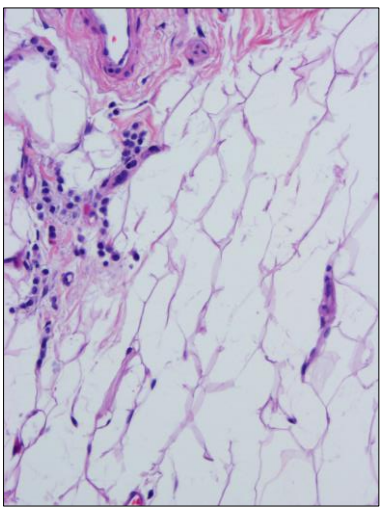
Calcifications in breast

- Cause
  - Not yet clear
  - BUT extremely useful phenomenon
- Normal appearing breast tissue with calcifications
  - Location
    - Epithelial
    - Both
    - Stromal

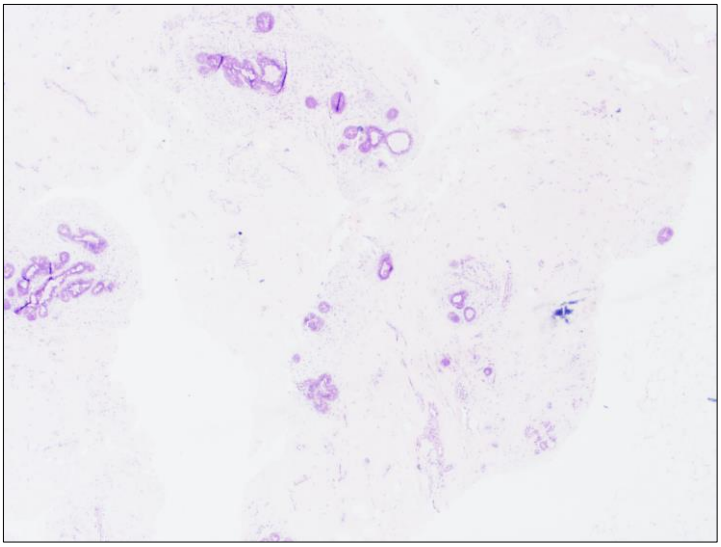
Normal appearing breast tissue

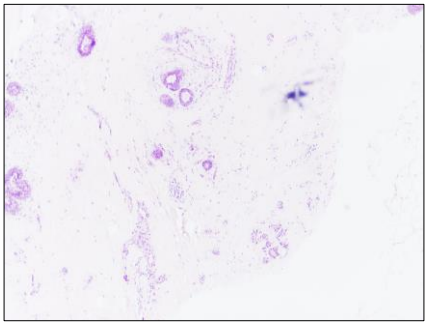
- Mass forming
  - Carcinoma (including Metastatic lesions)
  - Diabetic mastopathy
- Microcalcifications
  - Carcinoma (including Metastatic lesions)
  - Carcinoma (Post chemo-therapy)
  - Fibrocystic changes/disease
  - Fat necrosis
  - Amyloidosis

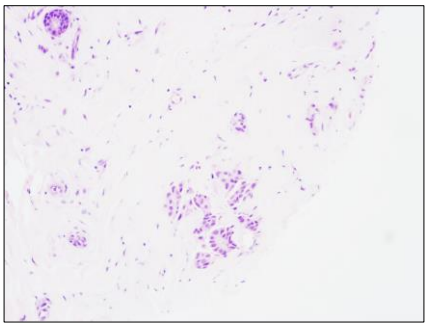
Rare Cancer Cells

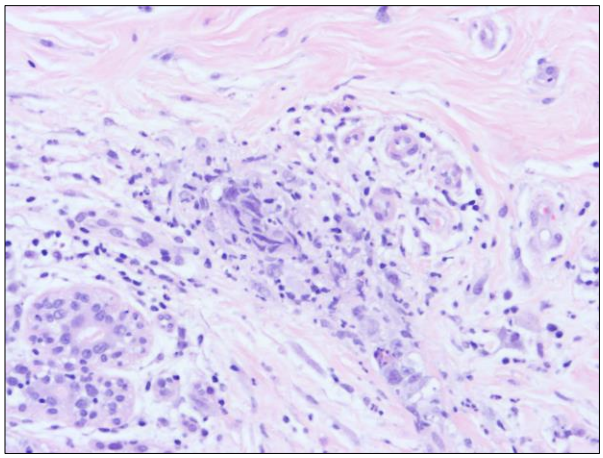




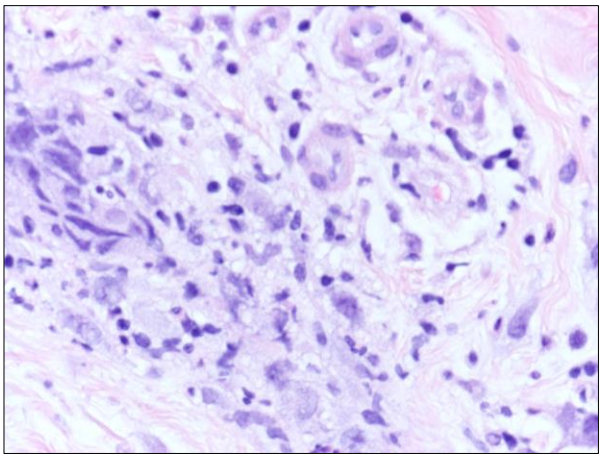
45F Breast biopsy



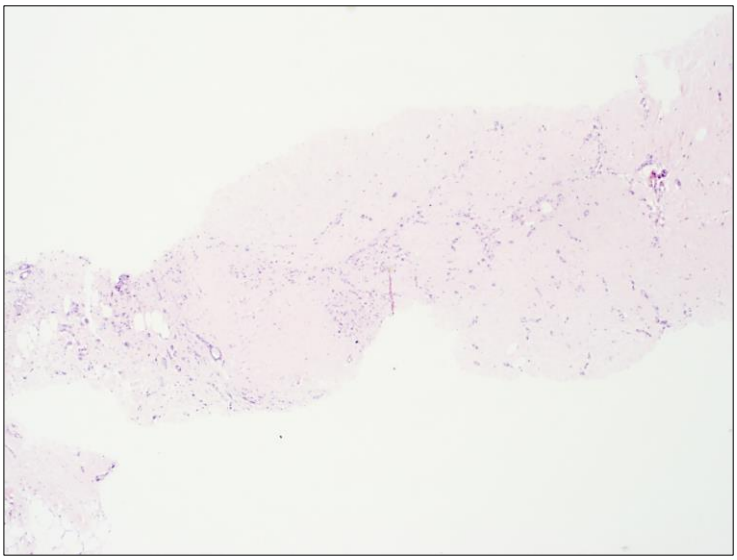


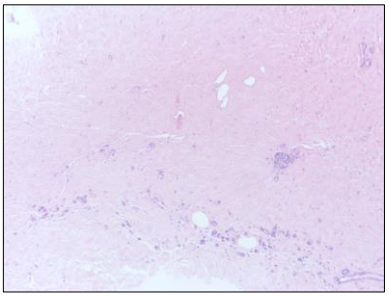


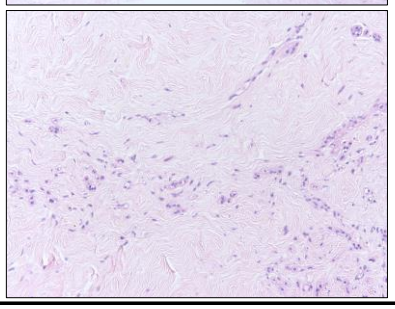




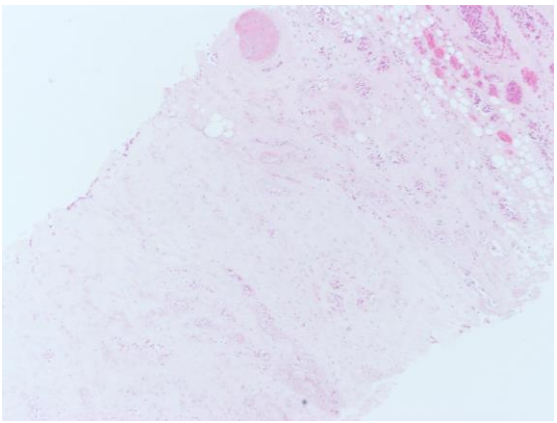
Atrophic Sclerosing adenosis

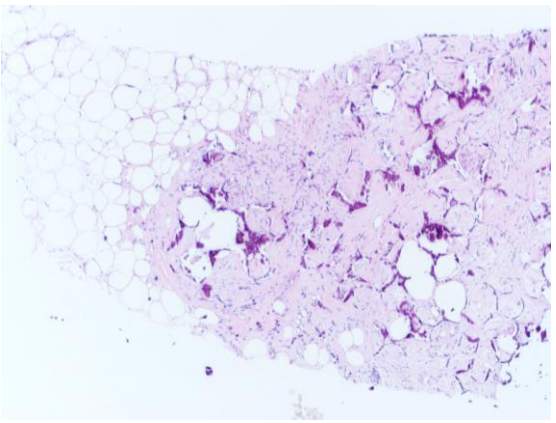




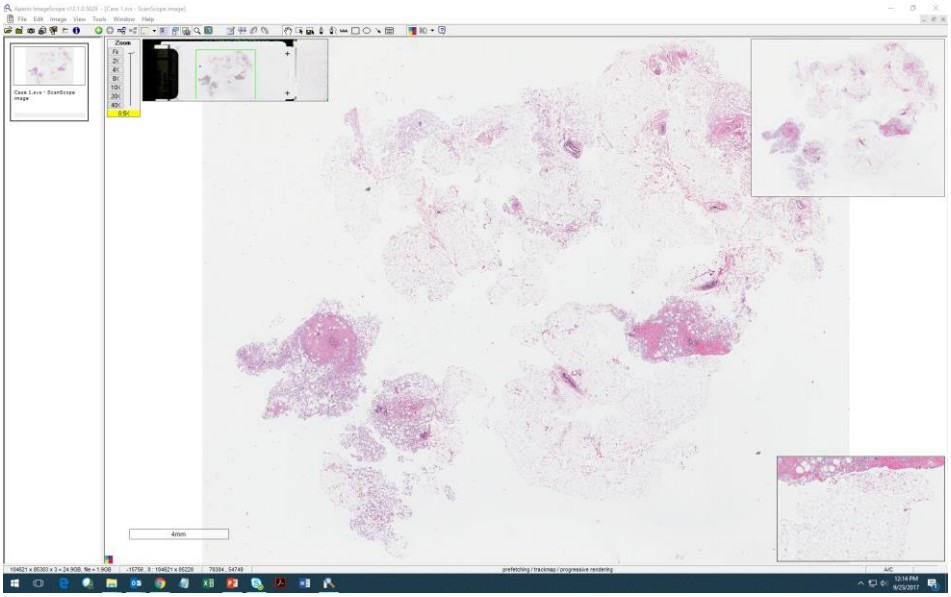


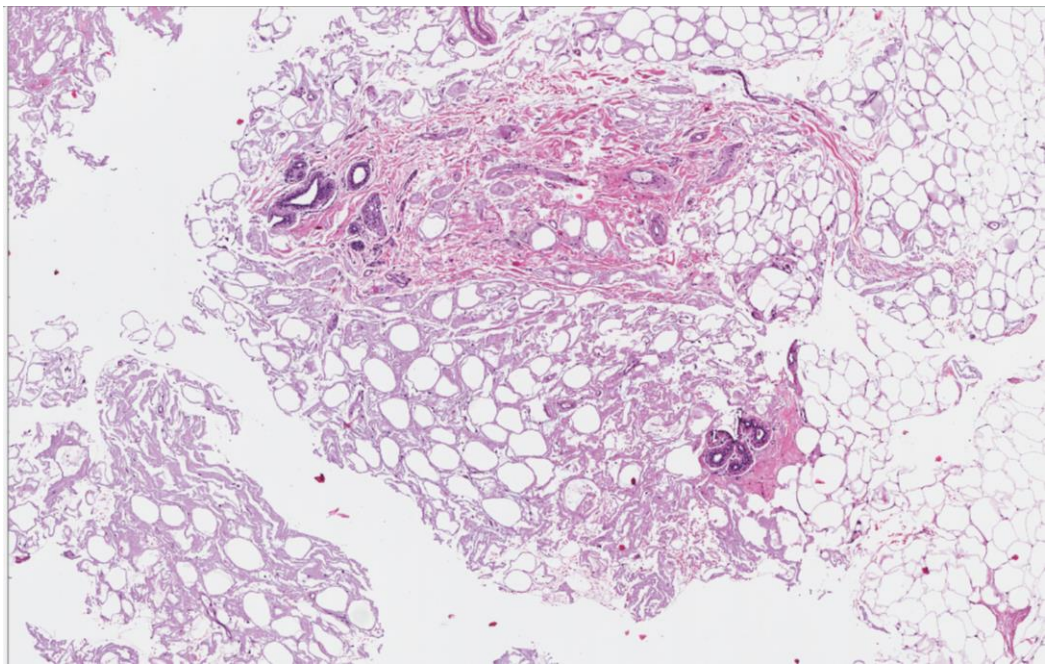
Other causes

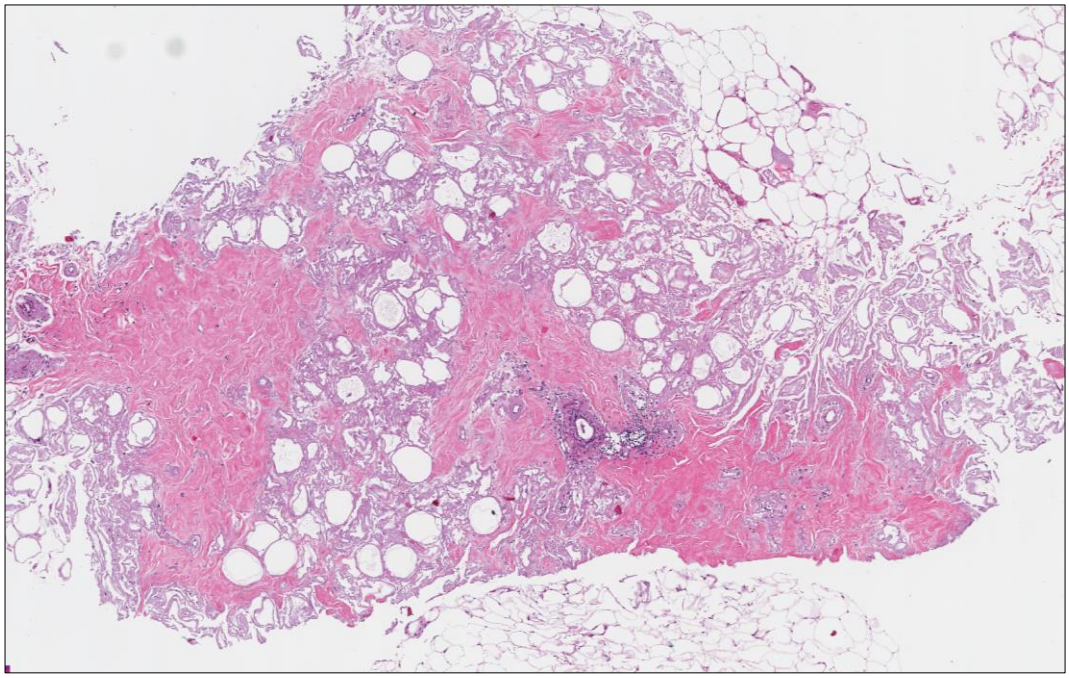


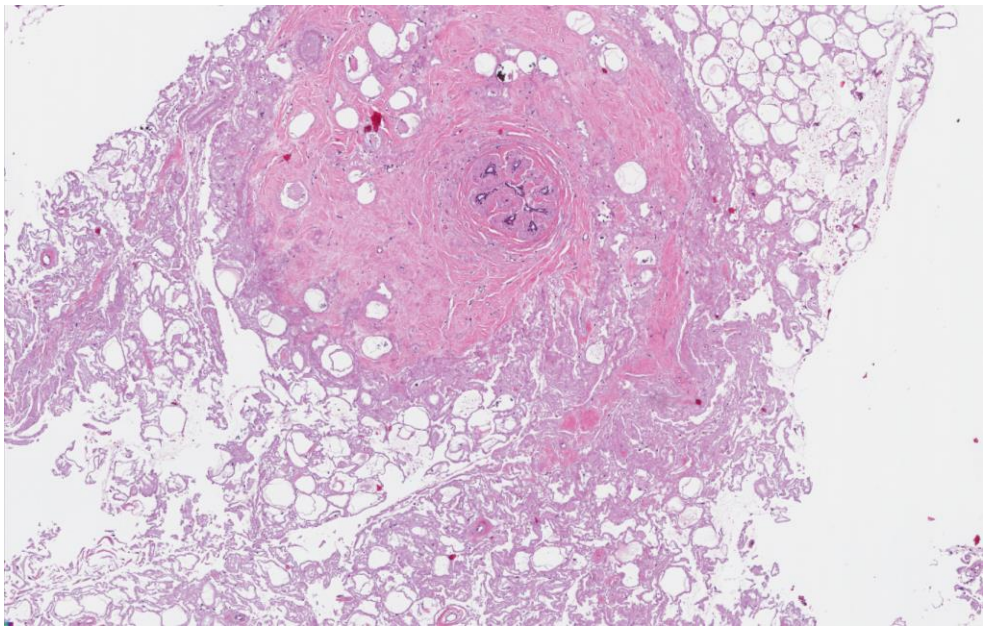


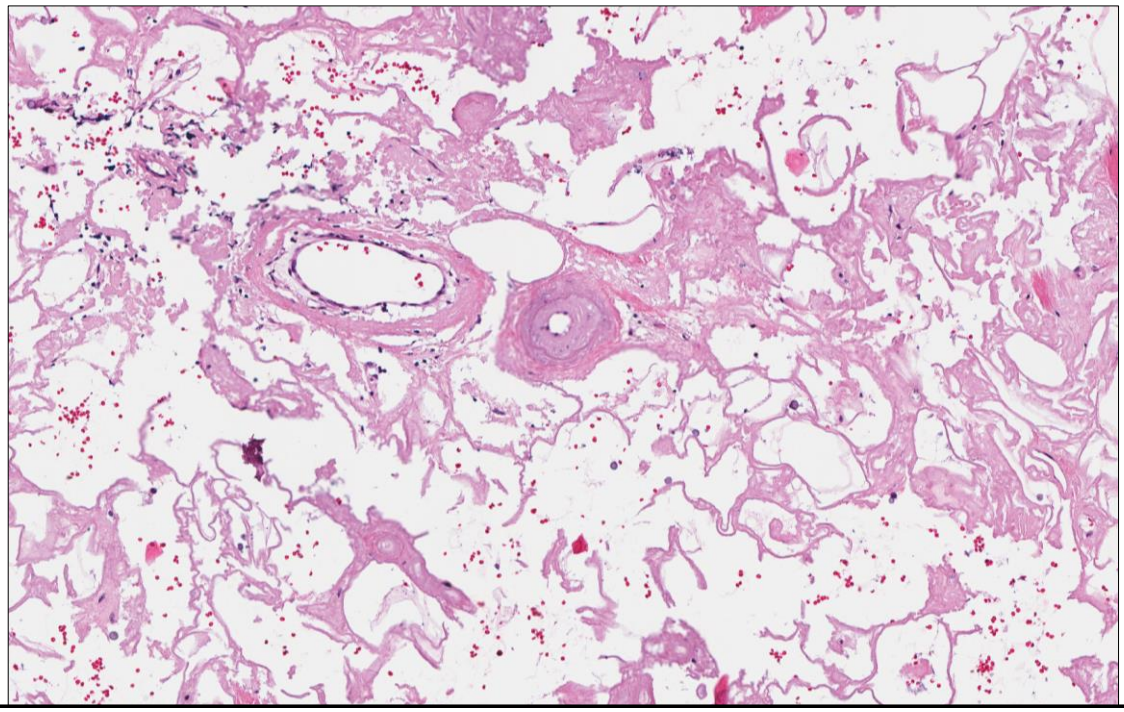
Case











Amyloidosis of breast

Amyloidosis

Causes

- Both Primary and secondary
- Vascular or stromal

- LC MS/MS analysis in this case
  - AL (lambda)-type amyloid deposits

Table 1 Characteristic features of 40 cases of breast amyloidosis

Parameters	*No. of patients (%)*	P-*value*
Mean age in years (range)	60 (38–85)	
Gender		0.0001
Female	39 (98%)	
Male	1 (3%)	
Side		0.5 (right *vs* left)
Right	21 (53%)	
Left	16 (40%)	
Bilateral	2 (5%)	
Unknown	1 (3%)	
Additional breast findings		0.2 (MALT *vs* plasma cell proliferative disorder/ plasmacytoma)
MALT lymphoma[a]	14 (35%)	
Plasma cell proliferative disorder/plasmacytoma	7 (18%)	
Chronic lymphoid leukemia	1 (3%)	
Type of amyloid		0.4 (kappa *vs* lambda)
AL	25 (63%)	
Kappa	15 (60%)	
Lambda	10 (40%)	
AH/AL	1 (3%)	
Unknown	14 (35%)	
Indications for biopsy		0.1 (mass *vs* calcification)
Mass	13 (33%)	
Calcifications	6 (15%)	
Unknown	21 (53%)	

[a]With plasmacytic differentiation in seven patients.

Take home messages

- d/d of normal appearing breast biopsy

- Carcinoma particularly mets can be deceptive

- Amyloidosis
  - Unusual diagnosis
  - Treatment of underlying condition