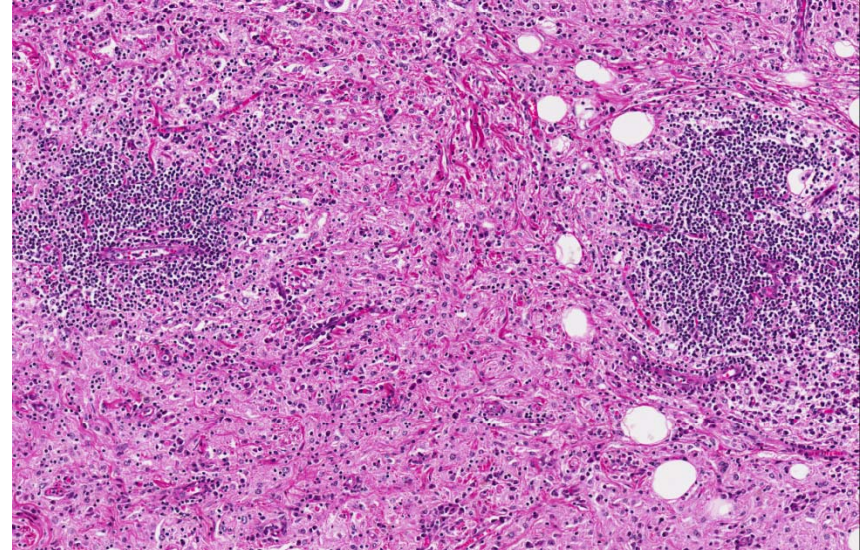
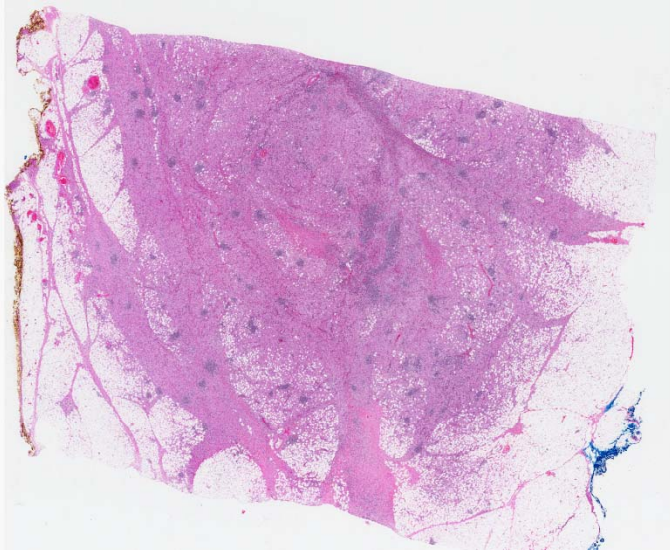


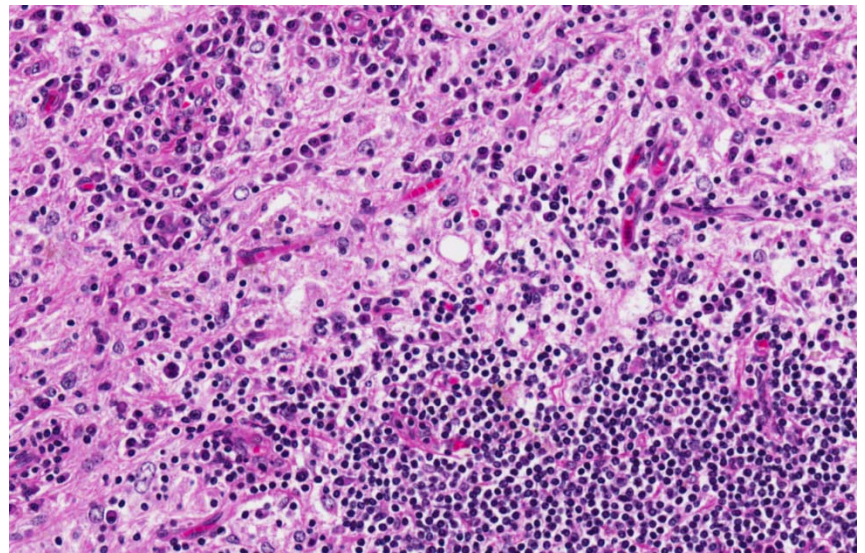
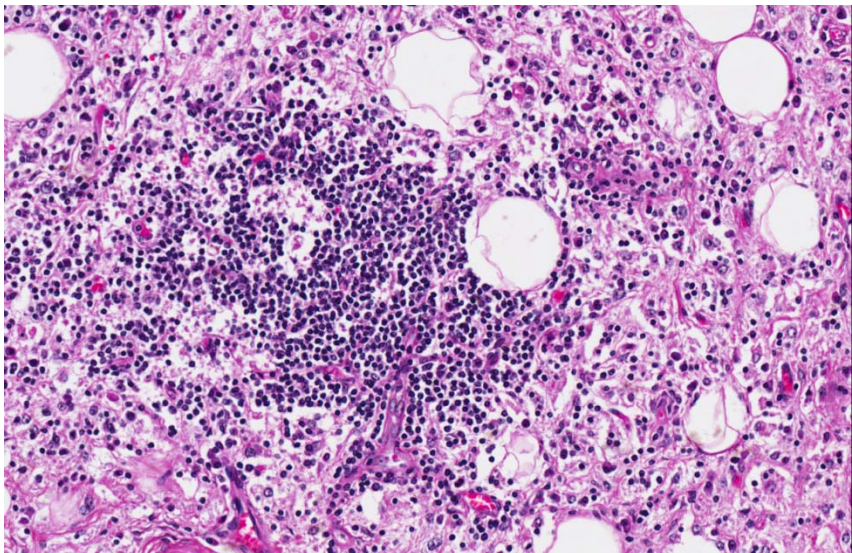
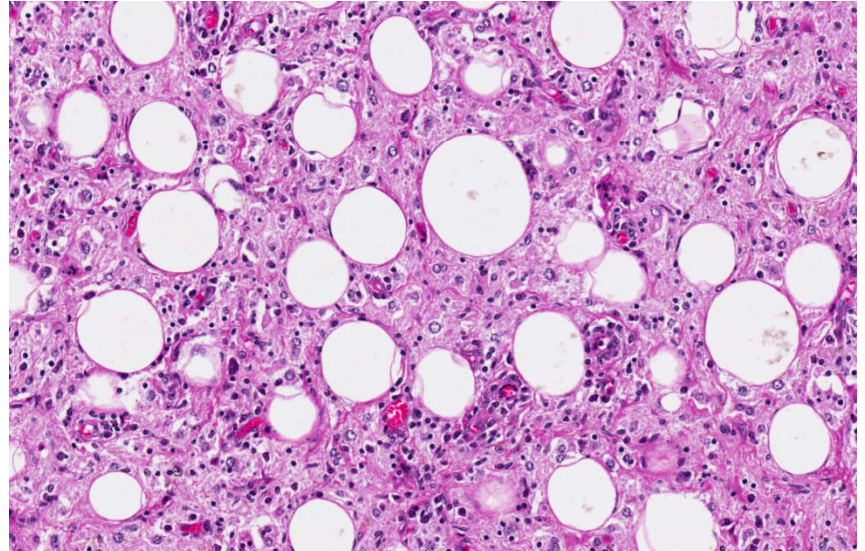
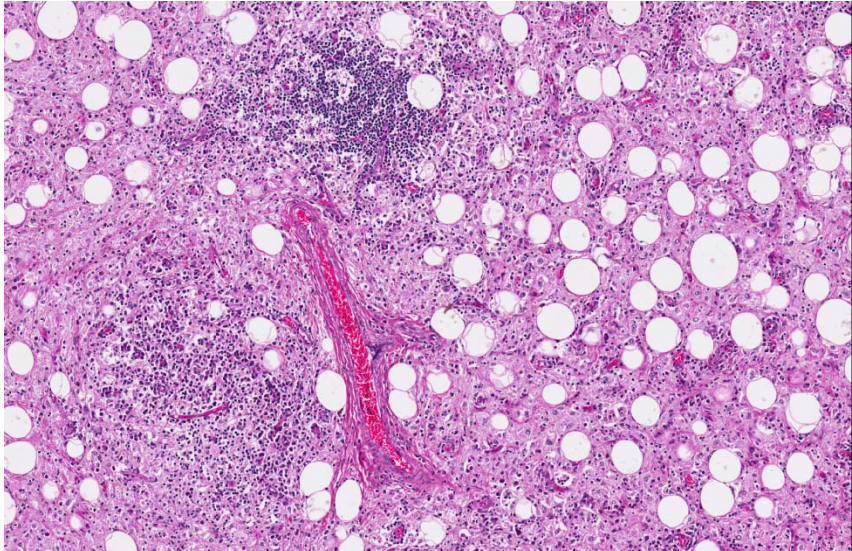
Set D.12

- 53 year old Chinese female complained of a left breast lump.
- Clinically, the palpable mass was in the superior aspect of the breast.
- Two prior biopsies yielded non-diagnostic conclusions.
- Open excision of the mass was performed.

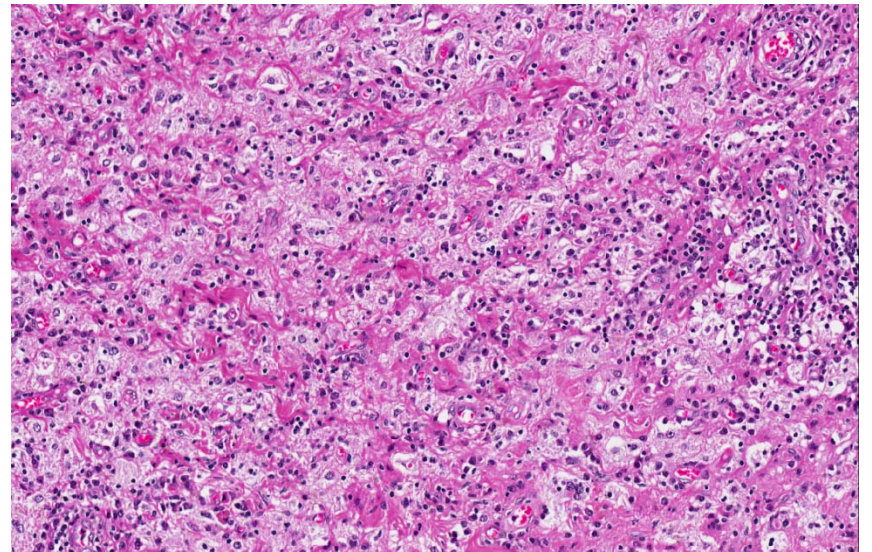
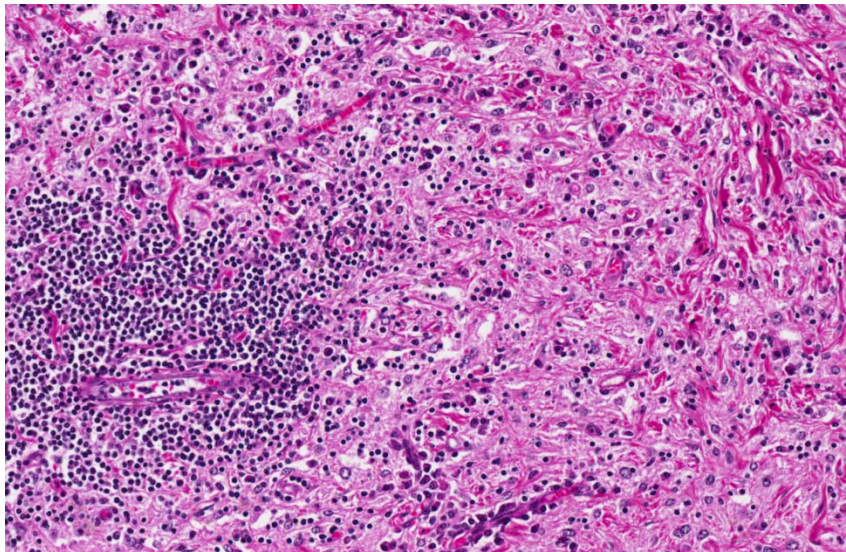
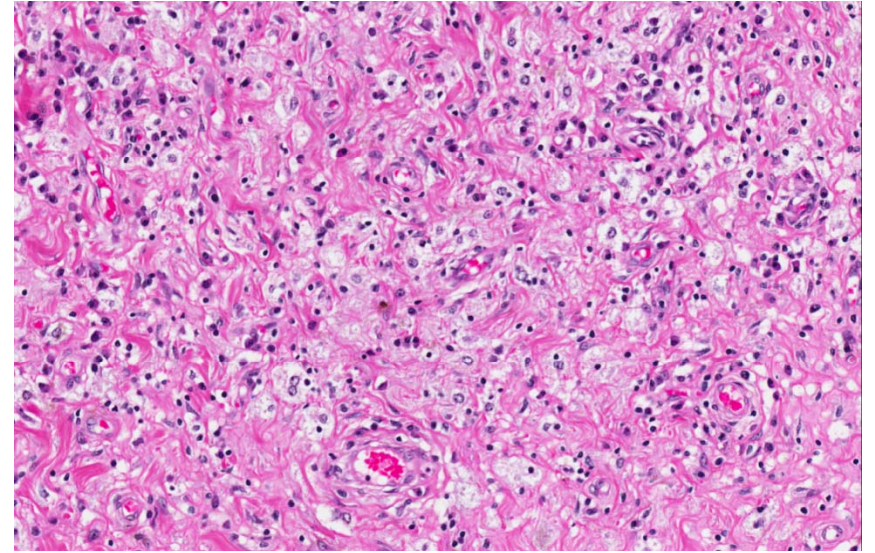
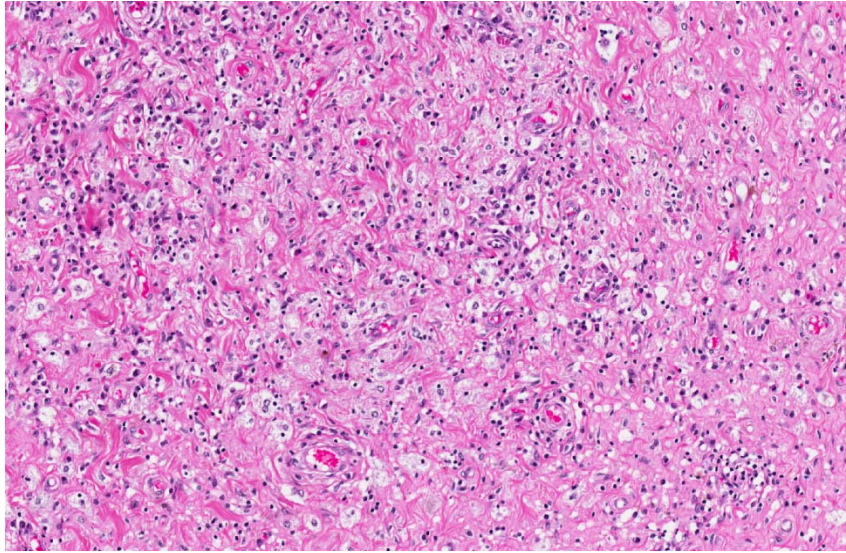
Set D.12



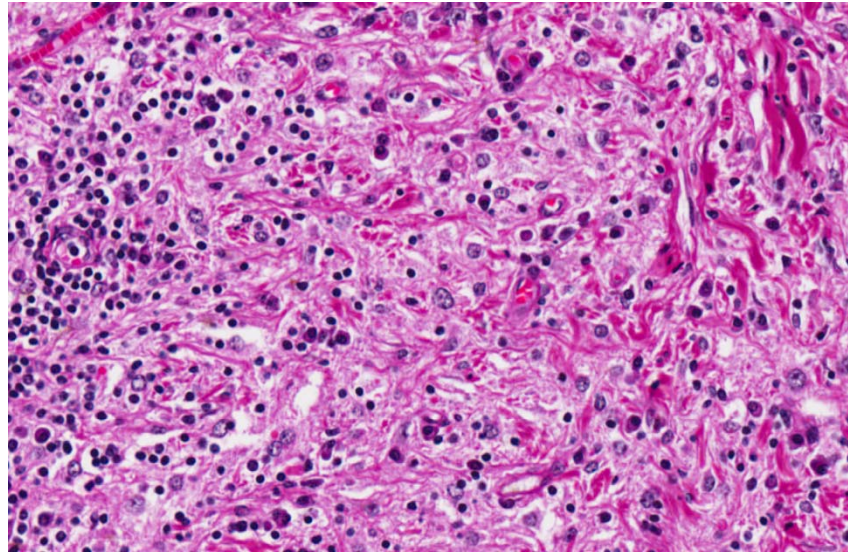
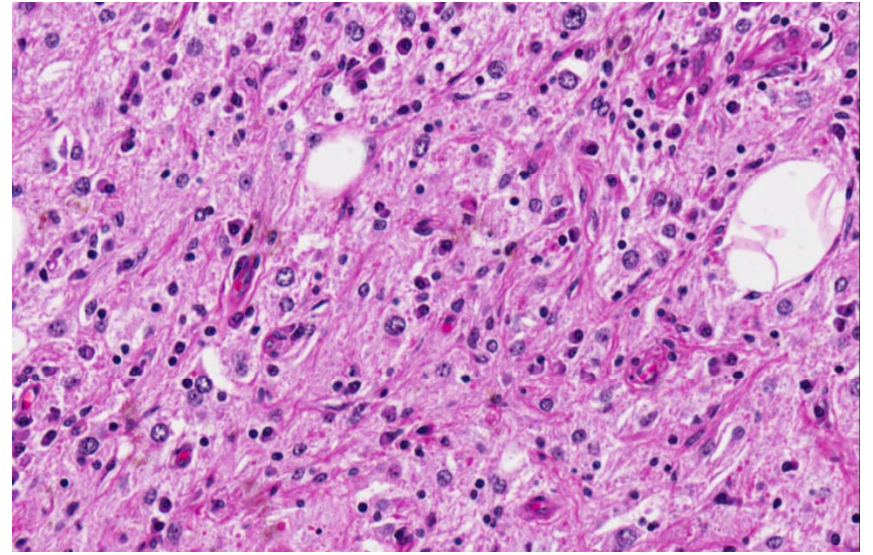
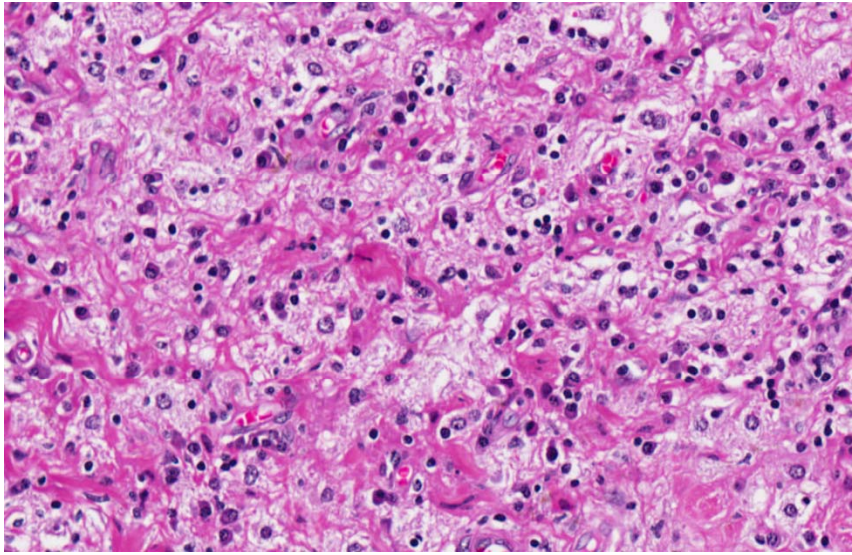
Set D.12

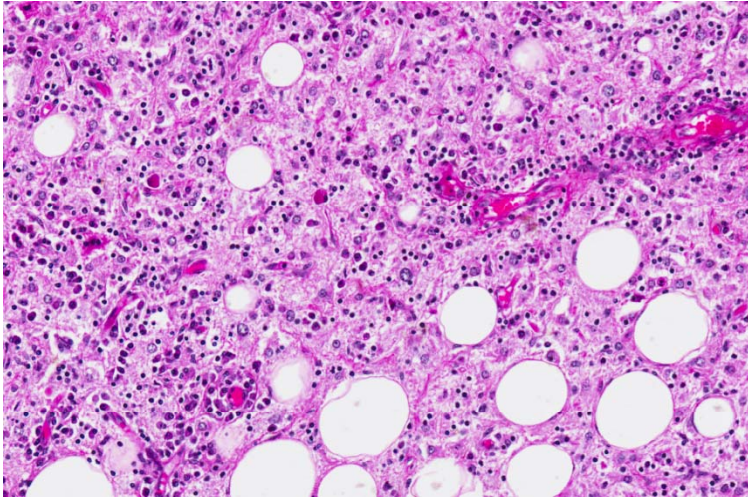


Set D.12



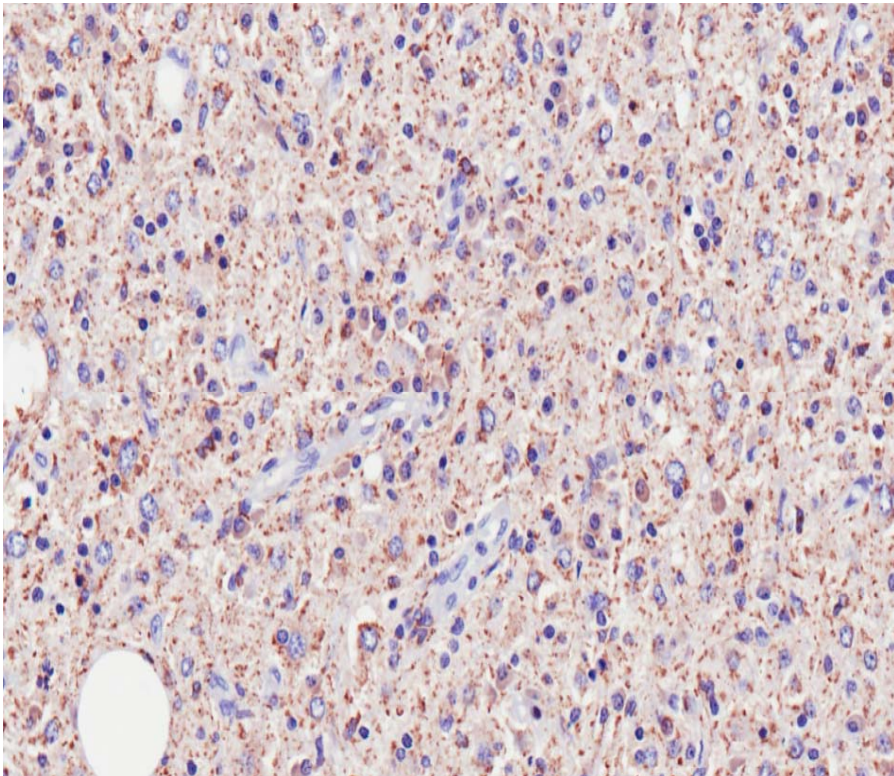
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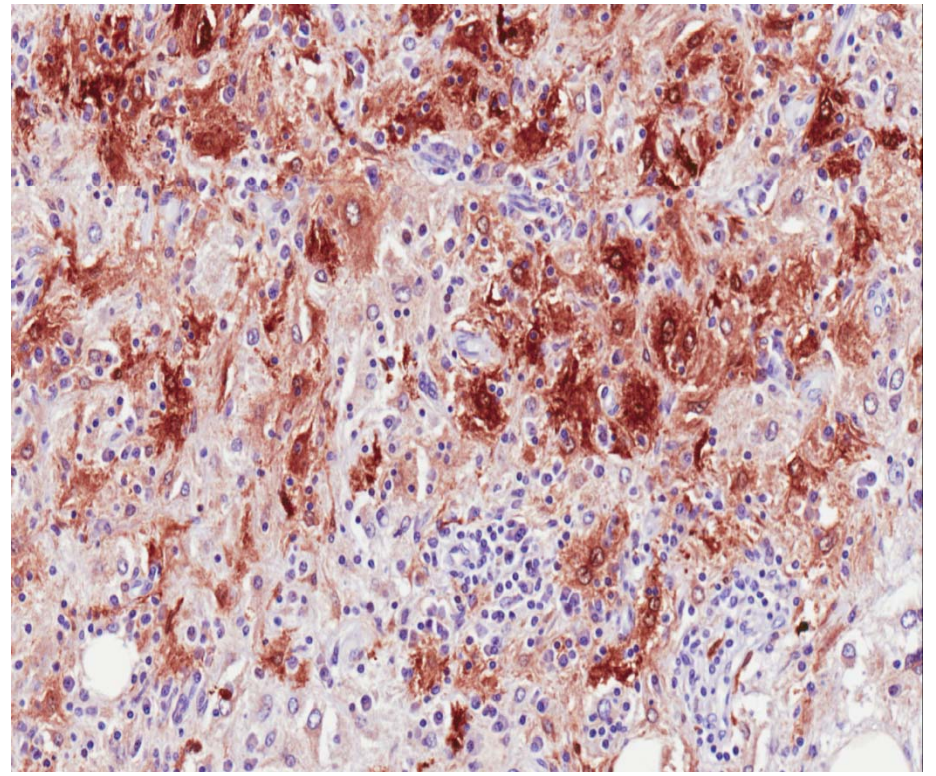


Set
D.12

CD68



S100



- Rosai-Dorfman disease of the breast

Rosai-Dorfman disease

- 1st described by Rosai and Dorfman in 1972.
(Cancer 1972; 30: 1174-88)
- Sinus histiocytosis with massive lymphadenopathy.
- Typically presents as massive, painless, bilateral cervical lymph node enlargement, associated with fever, leucocytosis, ↑ ESR, polyclonal hypergammaglobulinaemia.

Rosai-Dorfman disease

- > 25% have extranodal involvement.
- \approx 23% with extranodal disease alone, without concomitant nodal involvement.
- Extranodal sites:
 - Skin
 - Nasal cavity
 - Eyelid
 - Soft tissue
 - Bone

Rosai-Dorfman disease of the breast

- Uncommon.
- Clinically and radiologically mimic fibrocystic change or malignancy.

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ROSAI-DORFMAN DISEASE OF THE BREAST: A MIMIC OF BREAST MALIGNANCY

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Emperipolesis

- Term coined by Humble et al.
- Lymphocytes entering and leaving the cytoplasm of macrophages without undergoing degradation.
- Internalised lymphocytes located within cytoplasmic vacuoles.
- Hallmark of RDD.

Extranodal RDD

- More fibrosis.
- Fewer characteristic histiocytes.
- Emperipolesis less prominent.

Rosai-Dorfman disease of the breast

- Differential diagnoses:
 - Infective granulomatous lesions.
 - Idiopathic granulomatous mastitis.
 - Plasma cell mastitis.
 - Langerhans cell histiocytosis.
 - Erdheim-Chester disease:
 - *Provenzano et al. Am J Surg Pathol 2010; 34: 584-8.*
 - Histiocytoid invasive lobular carcinoma.

Rosai-Dorfman disease: aetiology

- Unknown.
- 2 most likely possibilities:
 - Infection by virus or other microorganism.
 - Undefined immunologic defect.
- Molecular studies have not found clonality, supporting a reactive rather than neoplastic aetiology.

Rosai-Dorfman disease: treatment

- No effective therapy.
- Chemotherapy sometimes useful.
- Usual course is quick and spontaneous resolution.
- Protracted clinical course in some cases, especially those with widespread extranodal involvement.
- Occasional deaths when RDD is extensive and affects vital organs, or due to complications related to immunologic abnormalities.

Learning points

- Recognition of the rare and unusual entity of RDD occurring within the breast.
- Distinction from inflammatory conditions and histiocytoid invasive lobular cancer.
- Acknowledging the difficulty with diagnosis on core biopsy.