SPLENIC HISTOPATHOLOGY DURING DIFFERENT SYSTEMIC NON-NEOPLASTIC DISEASES

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AMYLOIDOSIS

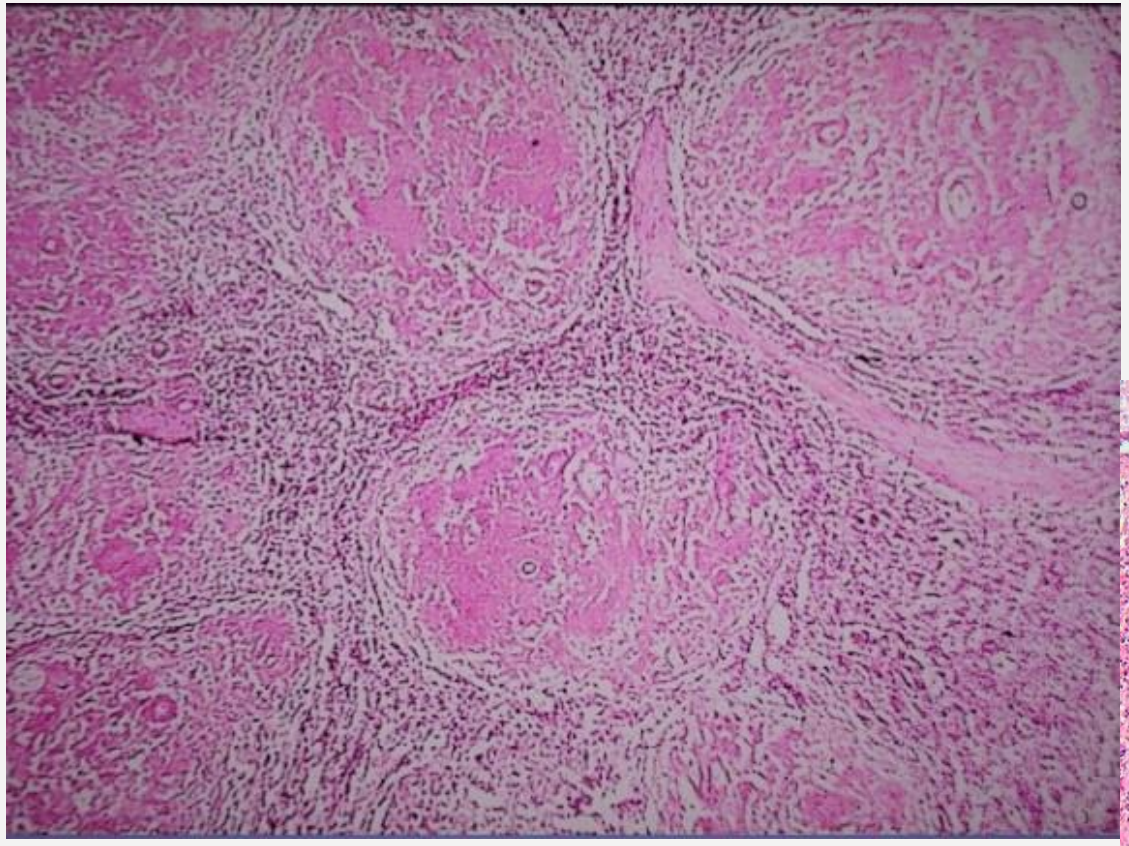
- *Mostly secondary*
- *Rarely primary*

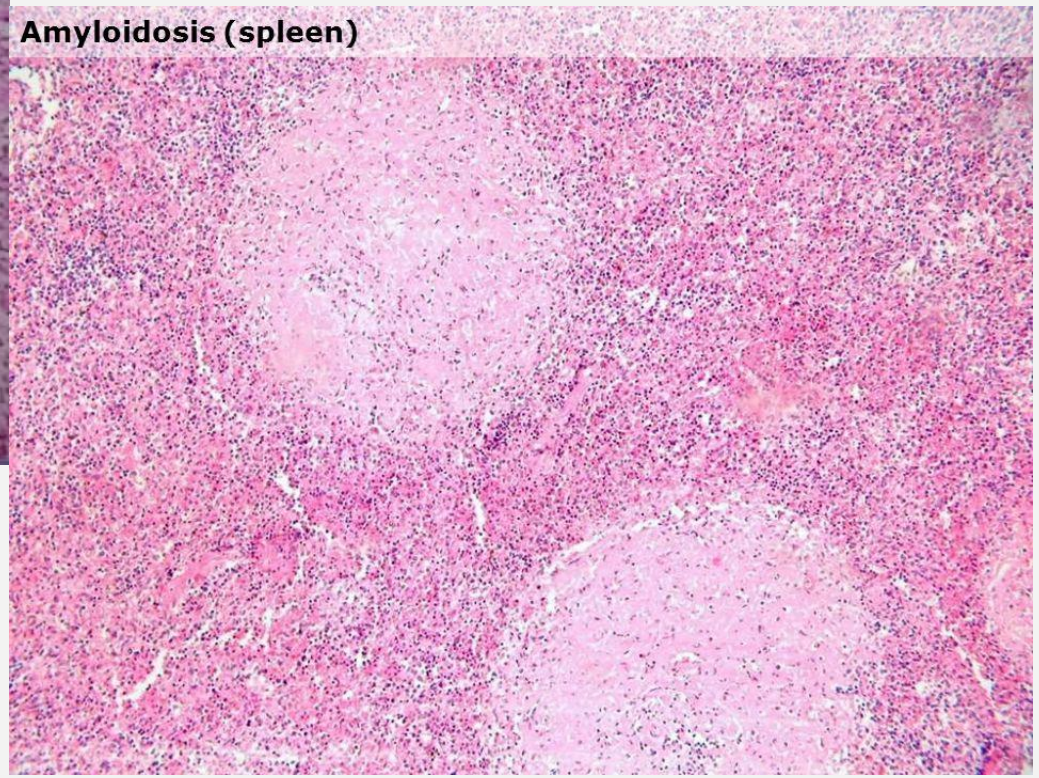
MACROSCOPY :

- *Firm consistency*
- *Waxy consistency*
- *Possible sago spleen*
- *Lardaceous spleen*
- *Splenomegaly*
- *Localized splenic nodules*
- *Rare splenic rupture*

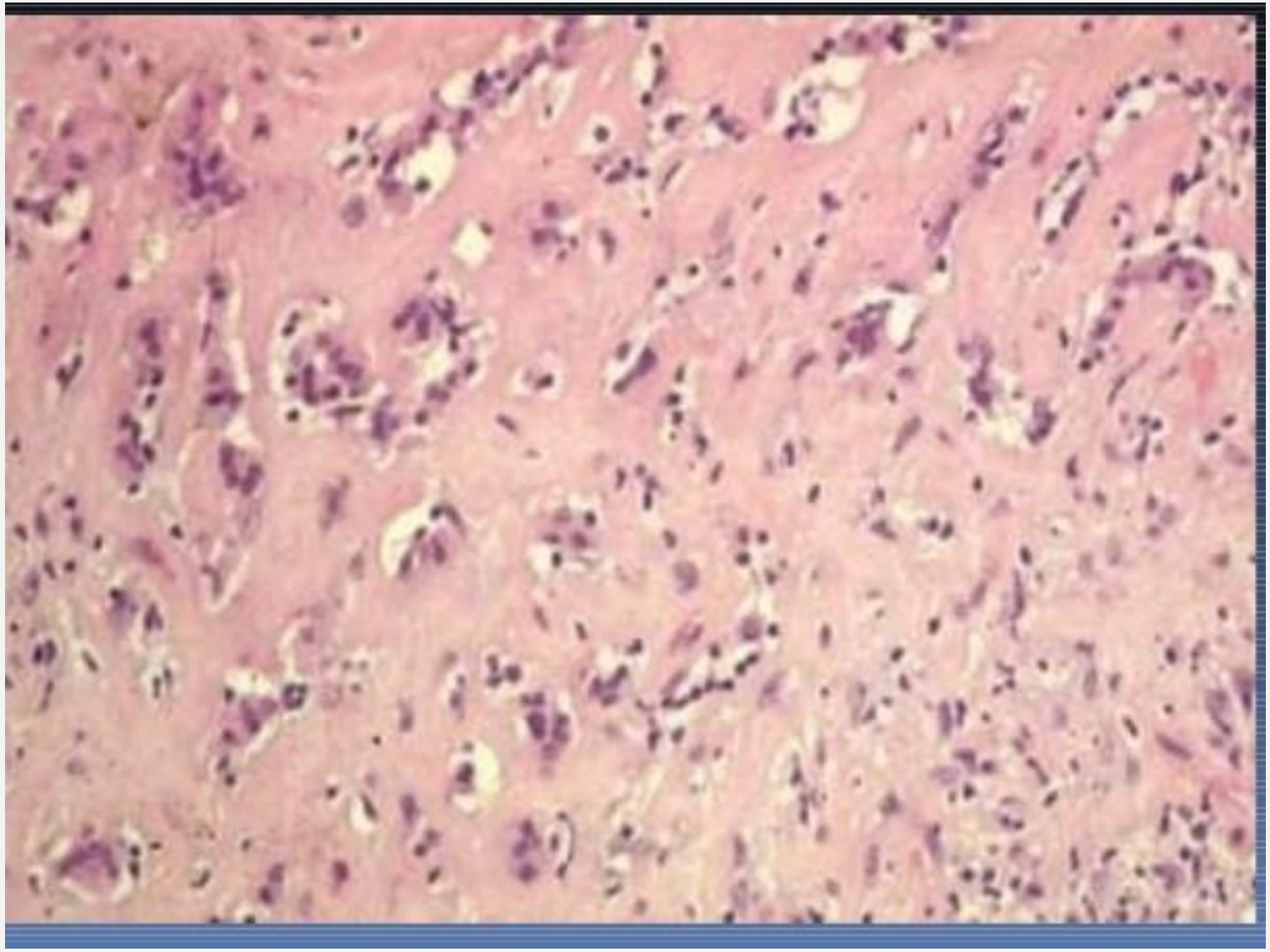
Sago spleen

- *MICROSCOPY :*
- *Sago spleen-deposition of pink amorphous material in to germinal follicles*





- *Lardaceous spleen in splenic sinusoids and surrounding connective tissue*

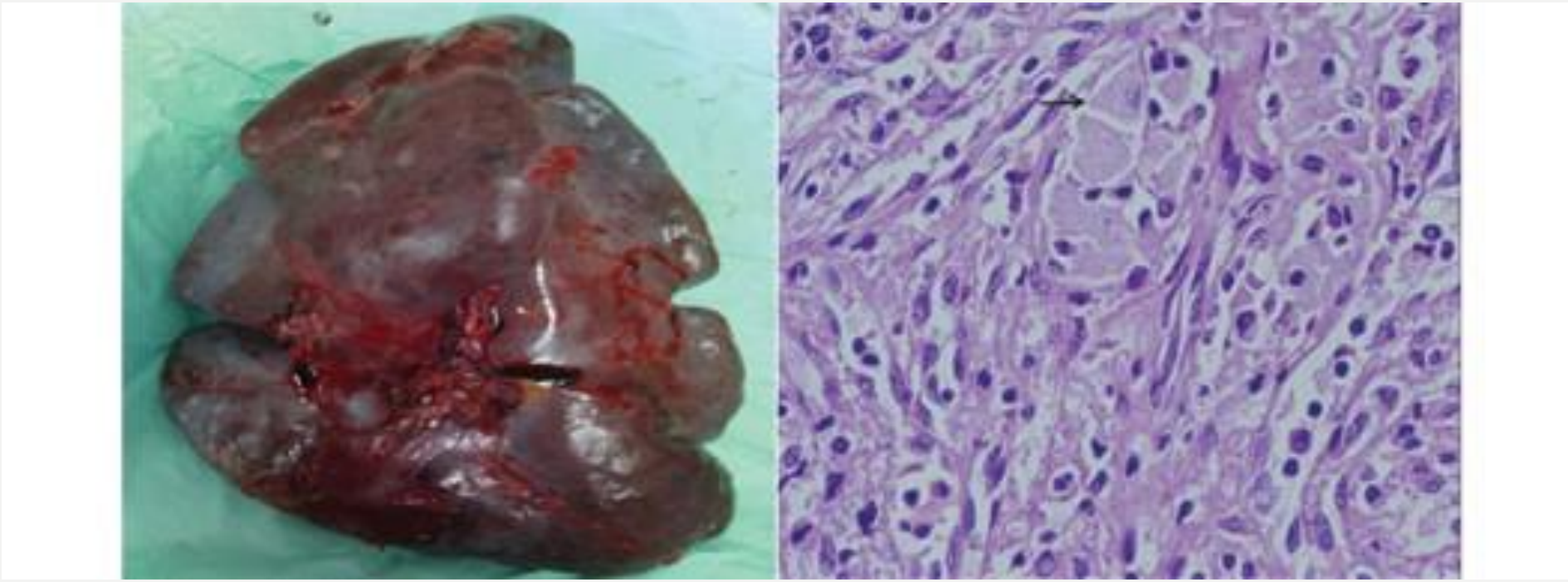


GAUCHER DISEASE

- *Glucocerebroside accumulation in reticuloendothelial cells*
- *14X risk of hematologic malignancies*

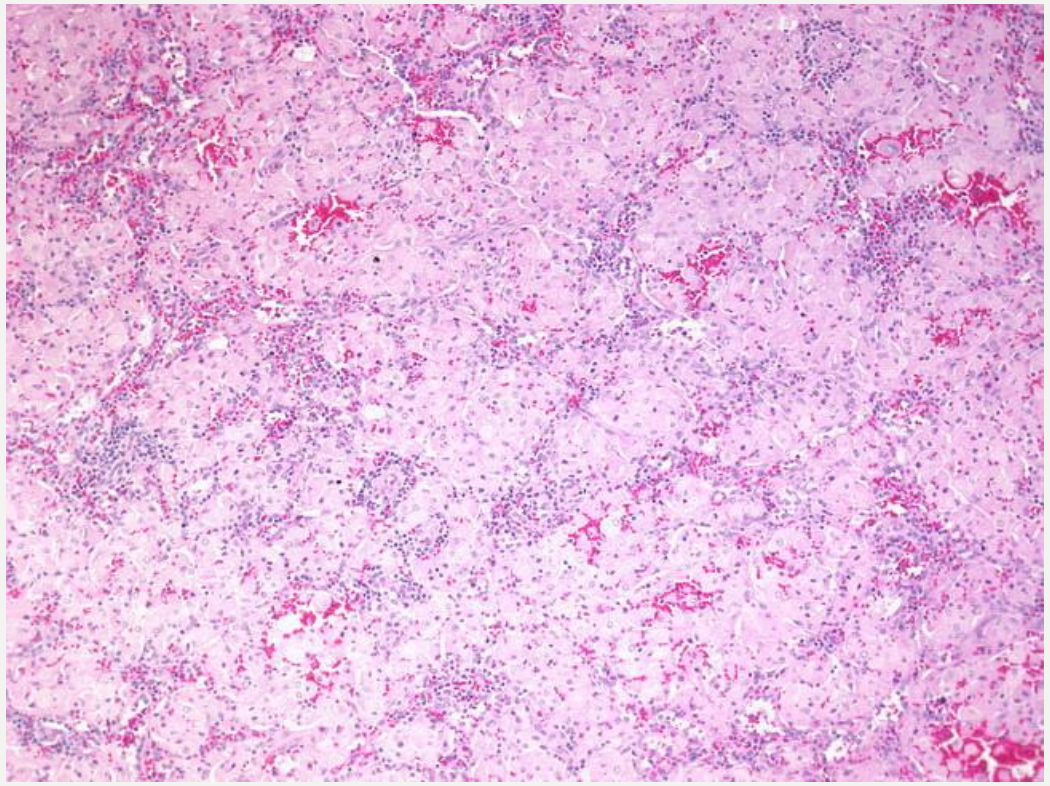
MACROSCOPY :

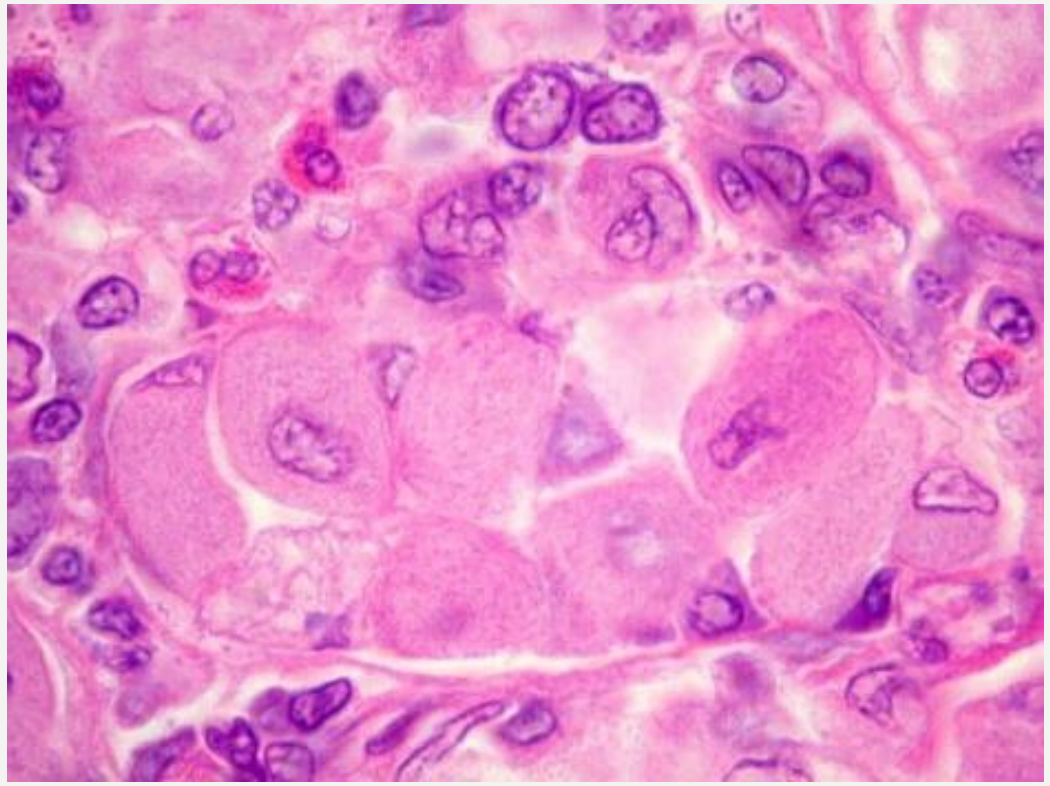
- *MASSIVELY ENLARGED SPLEEN*



MICROSCOPY :

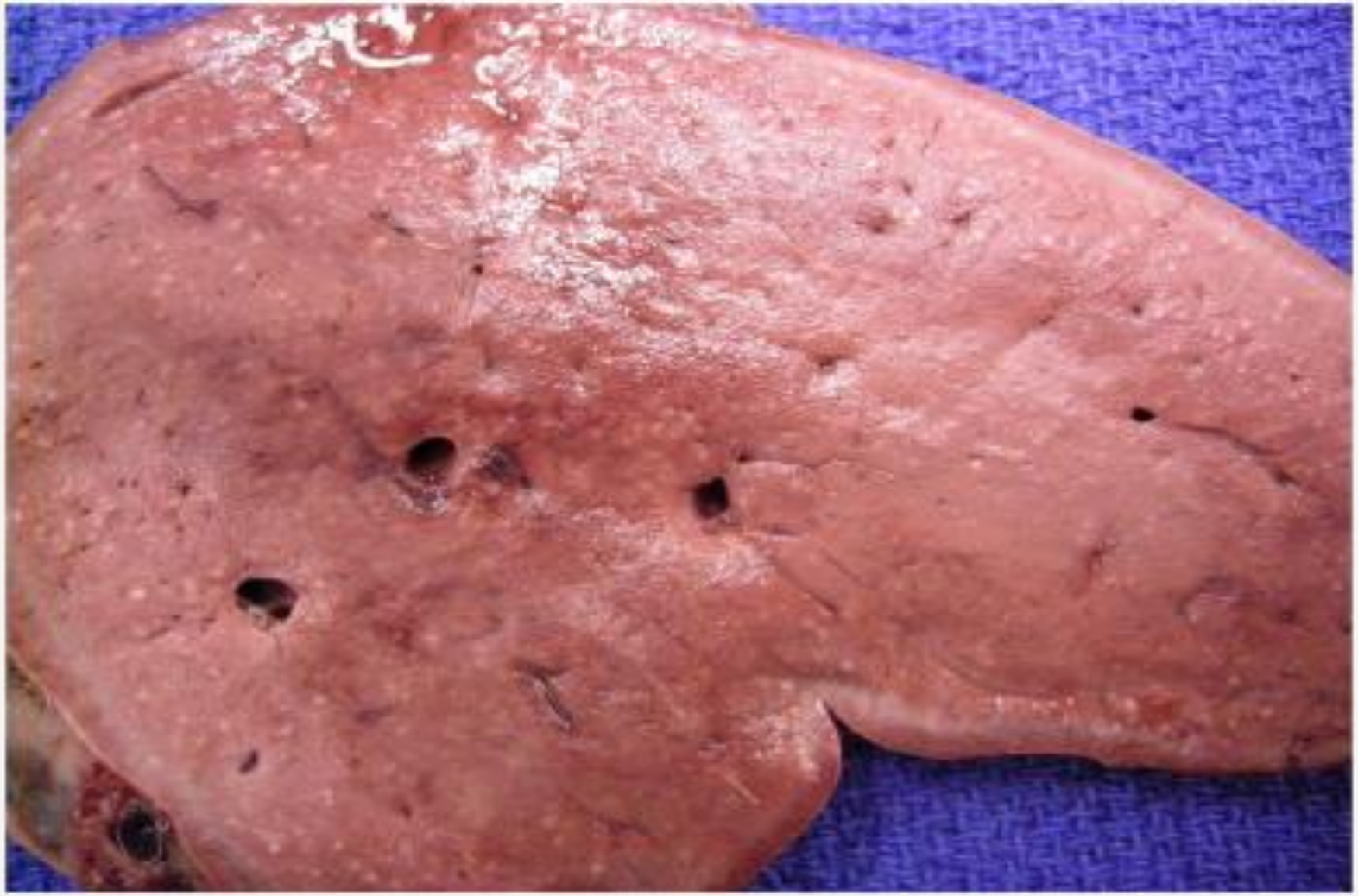
- *Marked expansion of red pulp*
- *White pulp intact*
- *Gaucher cells phagocytic cells with fibrillary wrinkled cytoplasm*



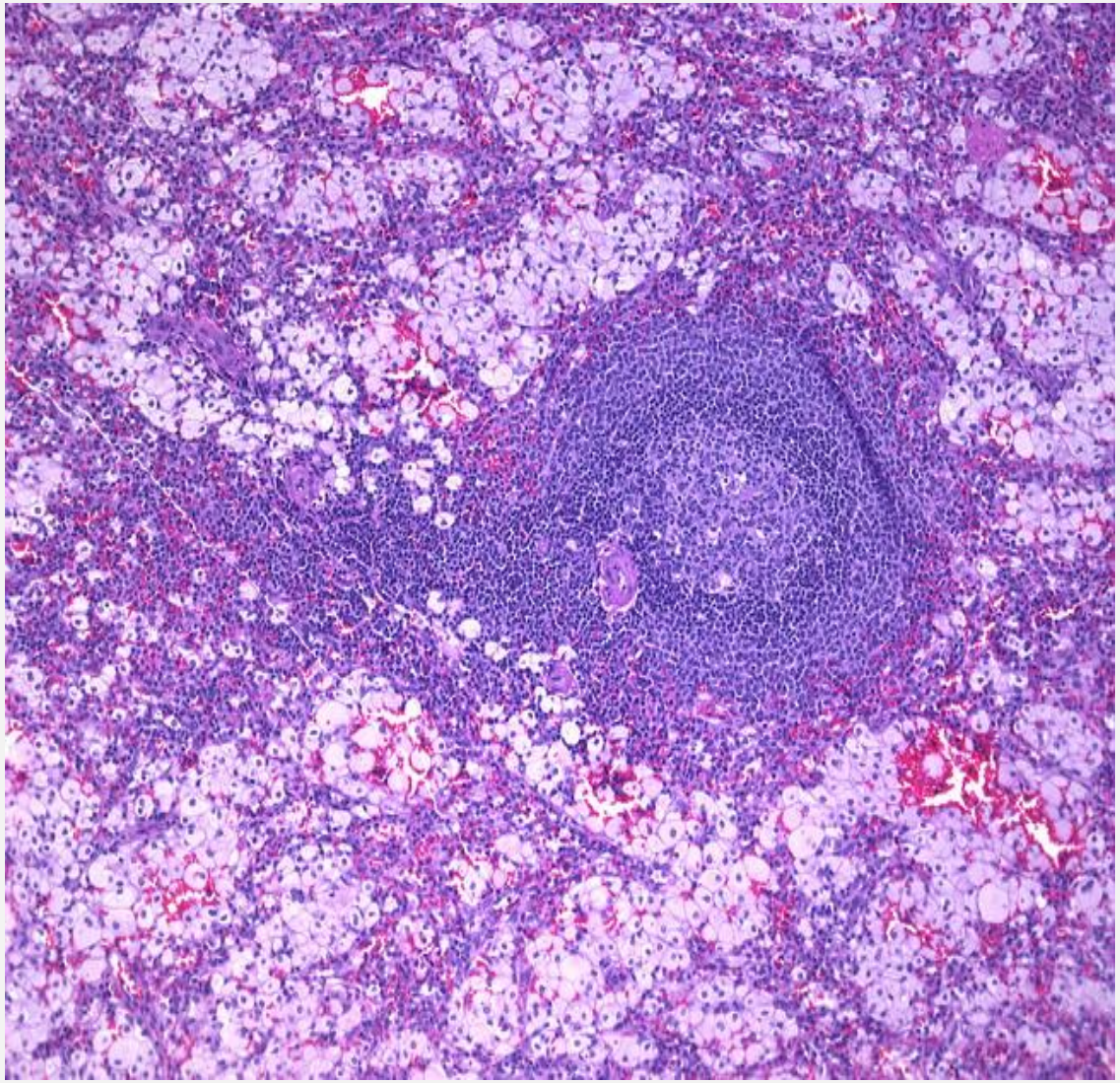


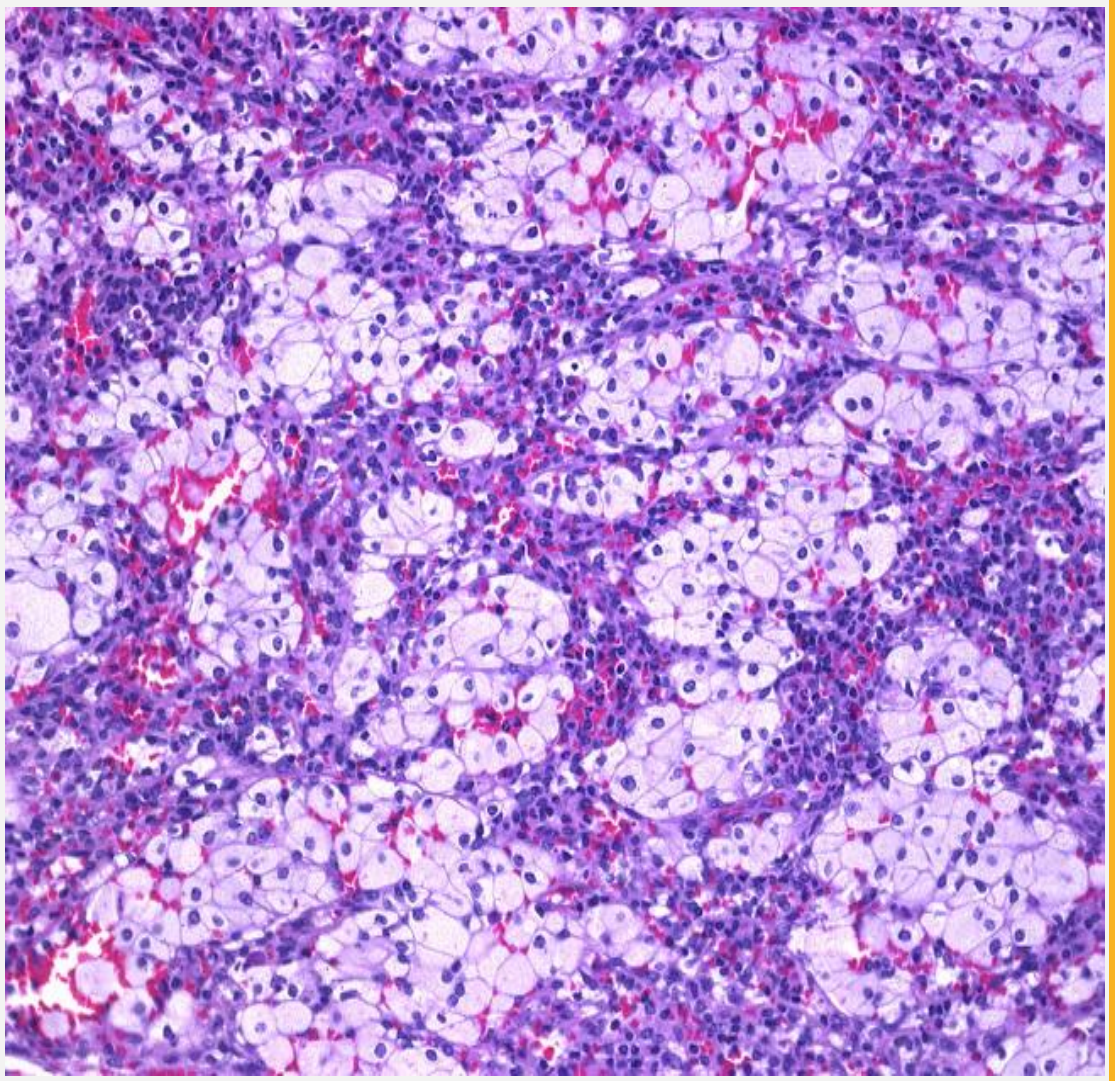
NIEMMAN PICK

- *Sphingomyelin accumulation*
- *Sphingomyelinase defficiency*

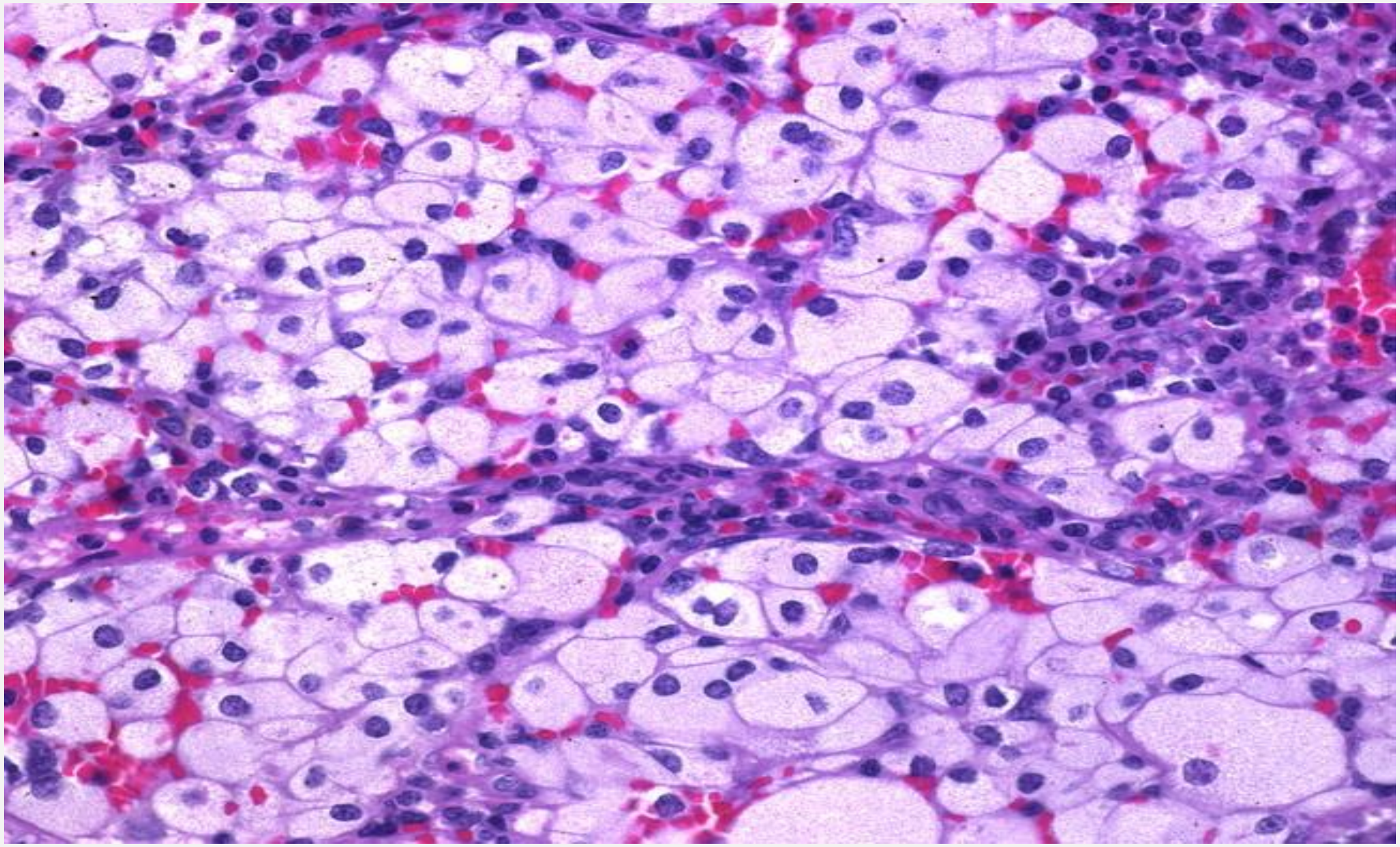


AGGREGATES OF FOAMY HISTIOCYTES



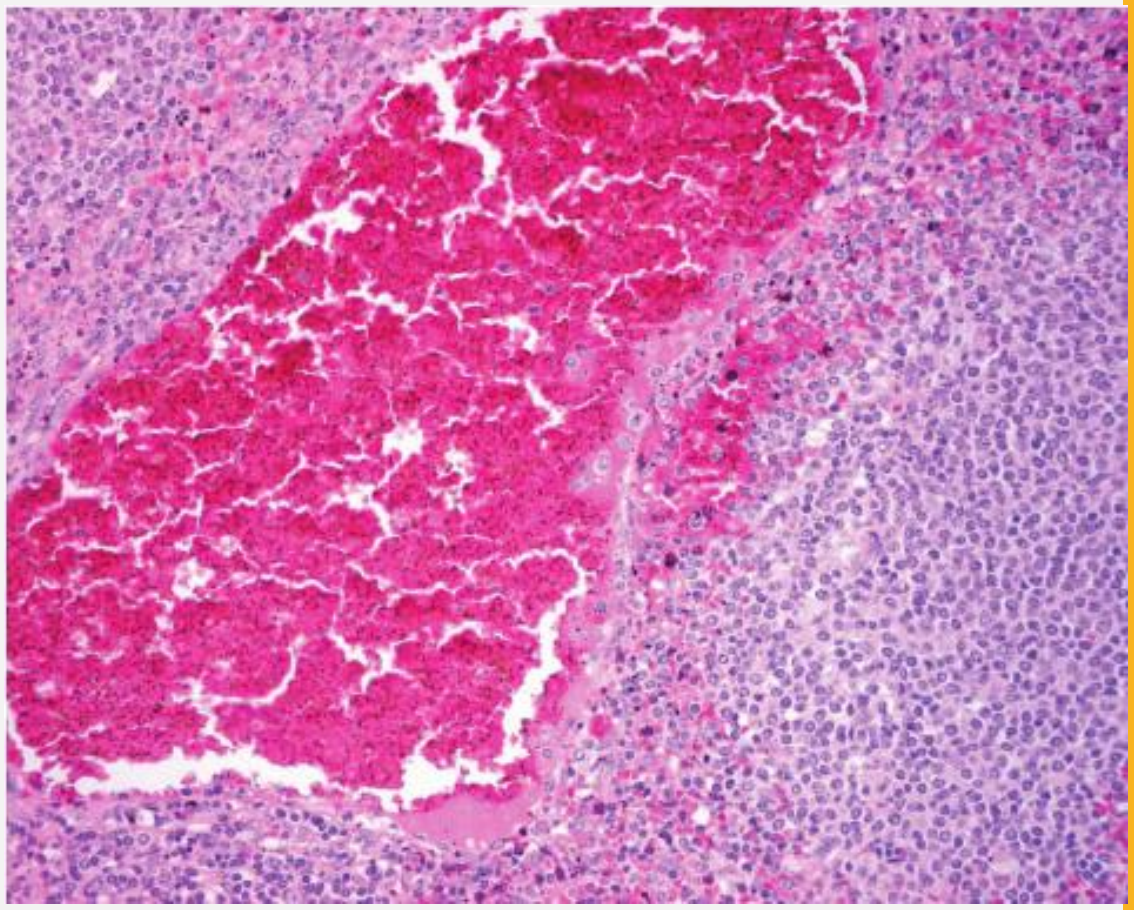


GRANULAR OR PARTIALLY VACUOLATED CYTOPLASM



PELIOSIS LIENIS

- *Bartonella Henseale associated (AIDS)*
- *Post-liver transplantation*
- *Recipients of anabolic –androgenic steroids*
- *Multiple blood filled cystic spaces with reduced lining cells (ectatic sinusoids)*



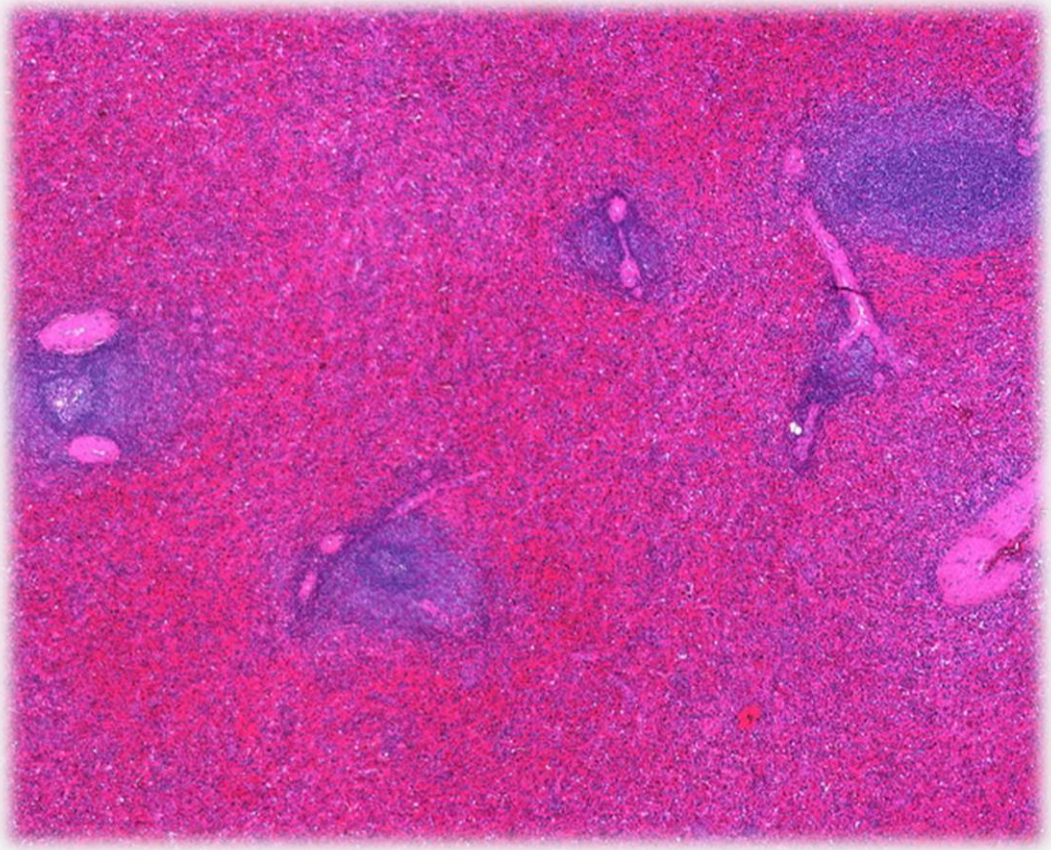
INHERITED	ACQUIRED
Sickle cell	*Immune hemolytic anemia*
Thalassemia	*Mechanical hemolytic anemia*
Spherocytosis	*Paroxysmal nocturnal hemoglobinuria*
Eliptocytosis (Ovalocytosis)	*Other causes of damage to red blood cells*
G6PD deficiency	
Pyruvate kinase deficiency	

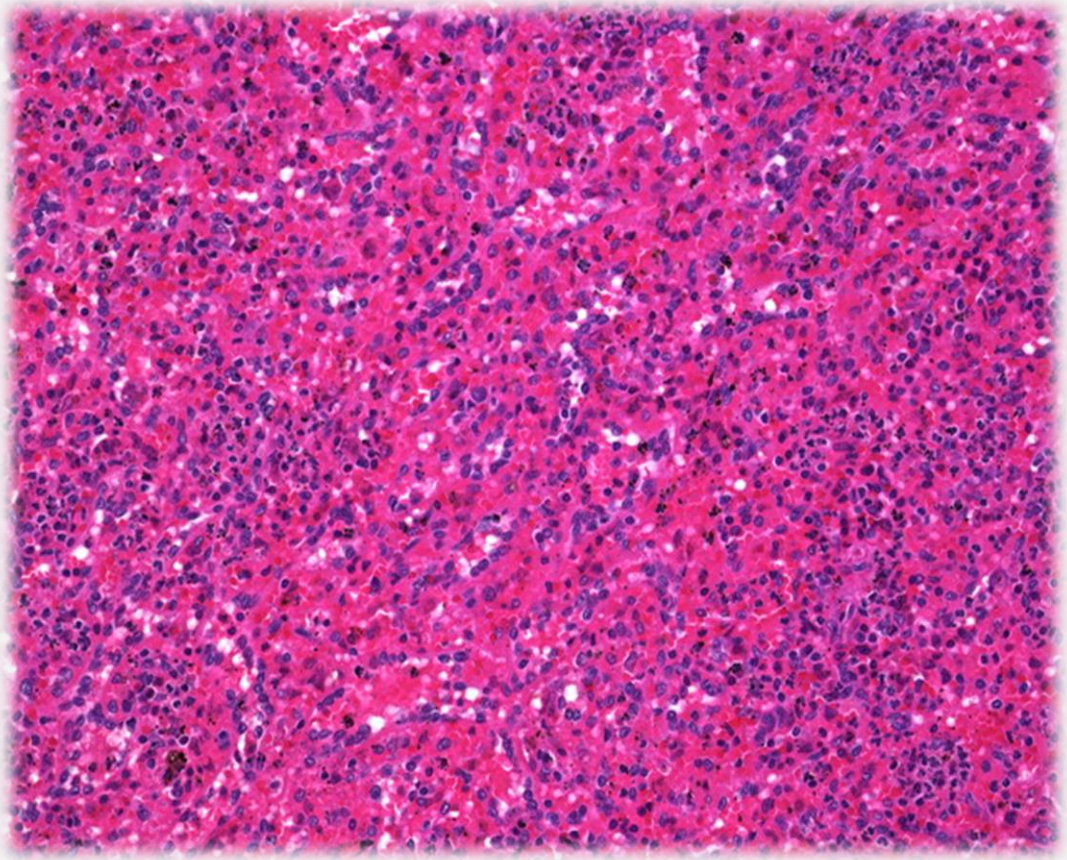
HEMOLYTIC ANEMIA

- *Congenital - (Hereditary spherocytosis, sickle cell)*
- *Acquired - deposition of immune complexes on red blood cell membranes;*
  - *bacterial hemolysins,*
  - *plasma lipid abnormalities,*
  - *parasites*

MICROSCOPY :

- *Congestion in cords and sinuses*
- *Reactive follicular hyperplasia*
- *Hemosiderin deposition*
- *Erythrophagocytosis with neutrophils*
- *Prominent splenic sinuses –gland like structures*



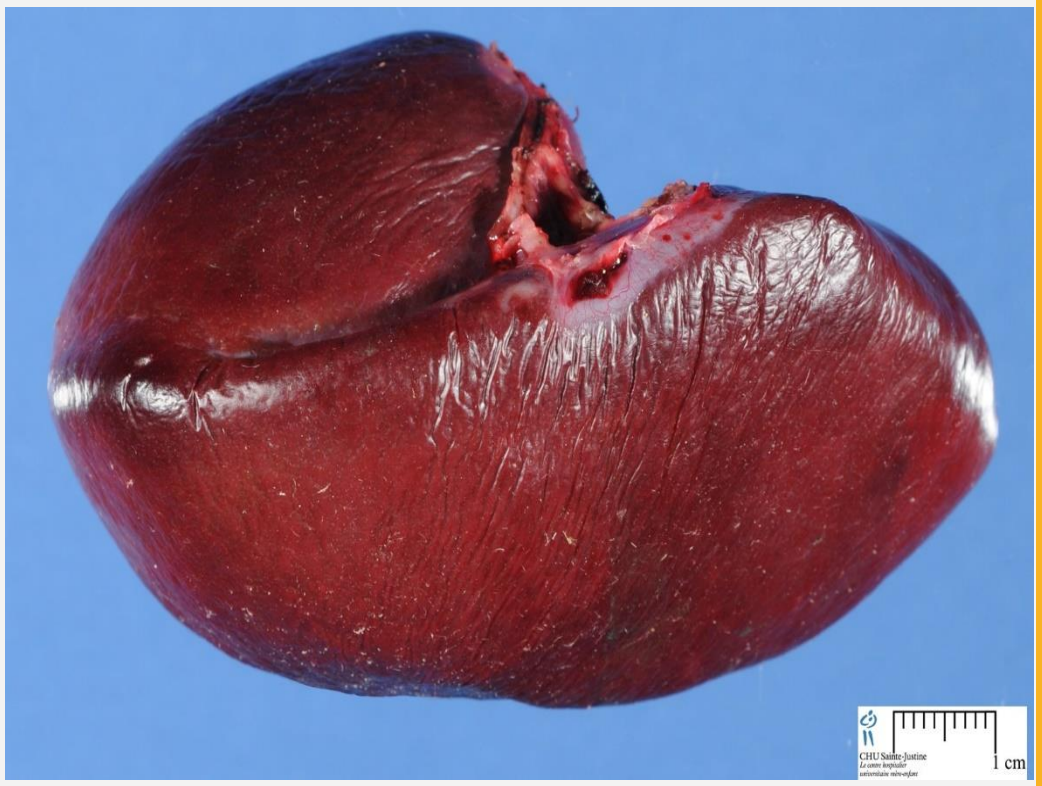


IMMUNE THROMBOCYTOPENIC PURPURA

- *Anti platelet IgG antibodies*
- *Associated to SLE,*
  - *Viral infection*
  - *Drug Hypersensitivity*
  - *Leukemia*
  - *Hodgkin lymphoma etc.*
- *Platelet destruction in spleen by macrophages*

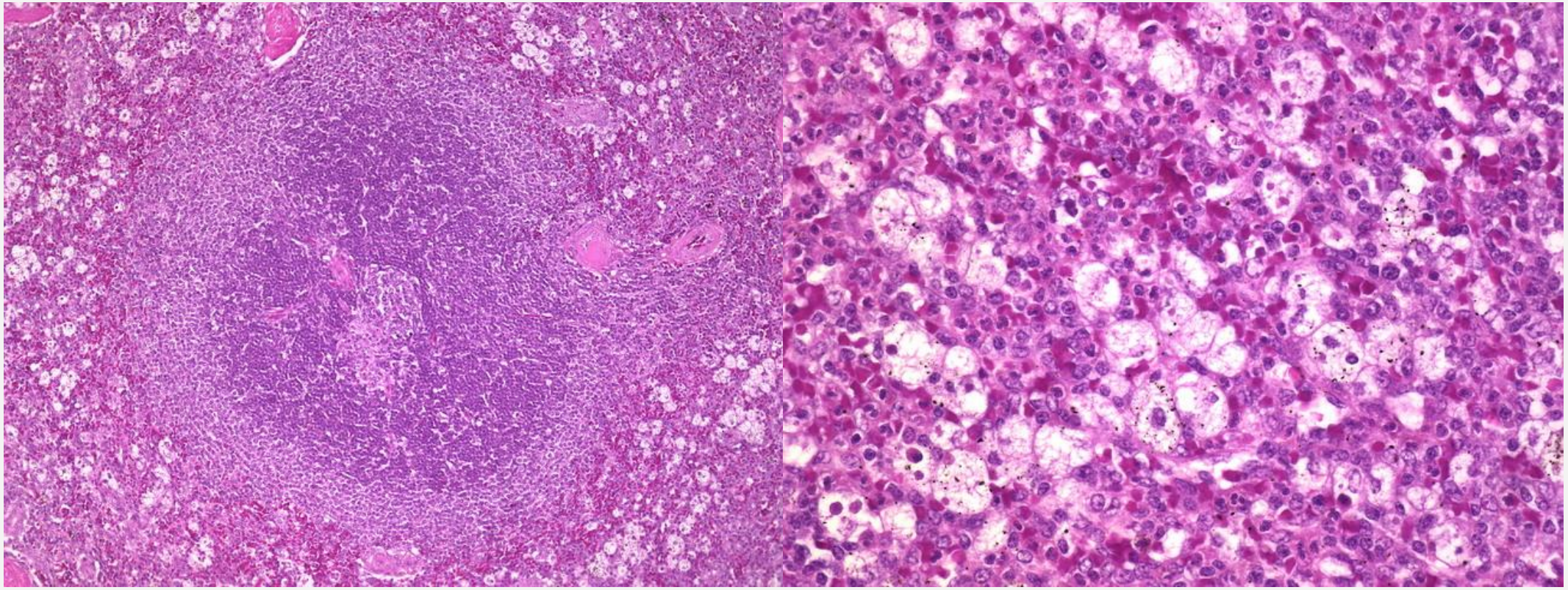
MACROSCOPY:

- *Normal or Mildly enlarged spleen*



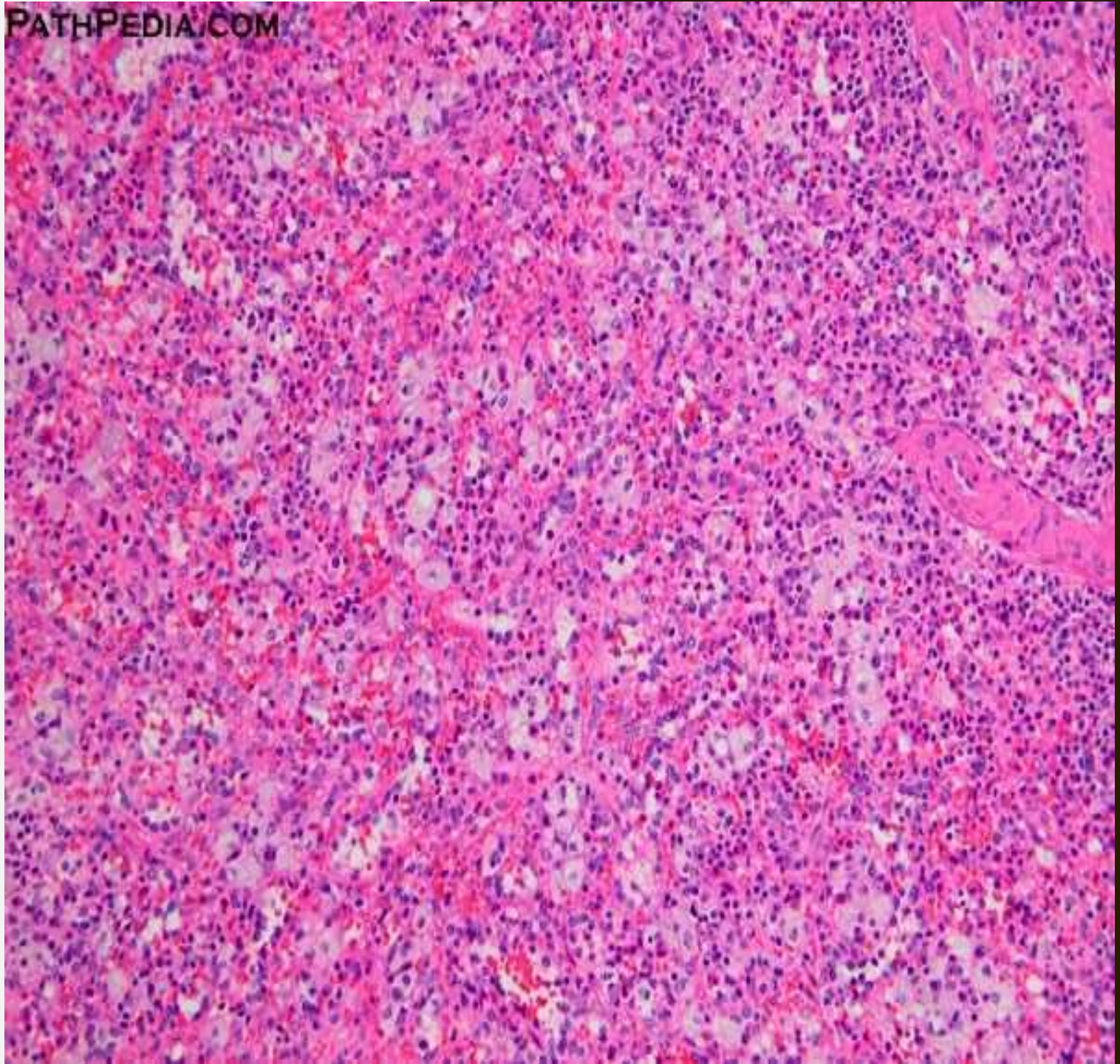
MICROSCOPY:

- *Enlarged secondary follicles with well developed CD41+ germinal centers*
- *Histiocytes and neutrophils in red pulp*
- *Periarterial fibrosis*
- *Ceroid-laden macrophages (incompletely degraded phospholipids)*



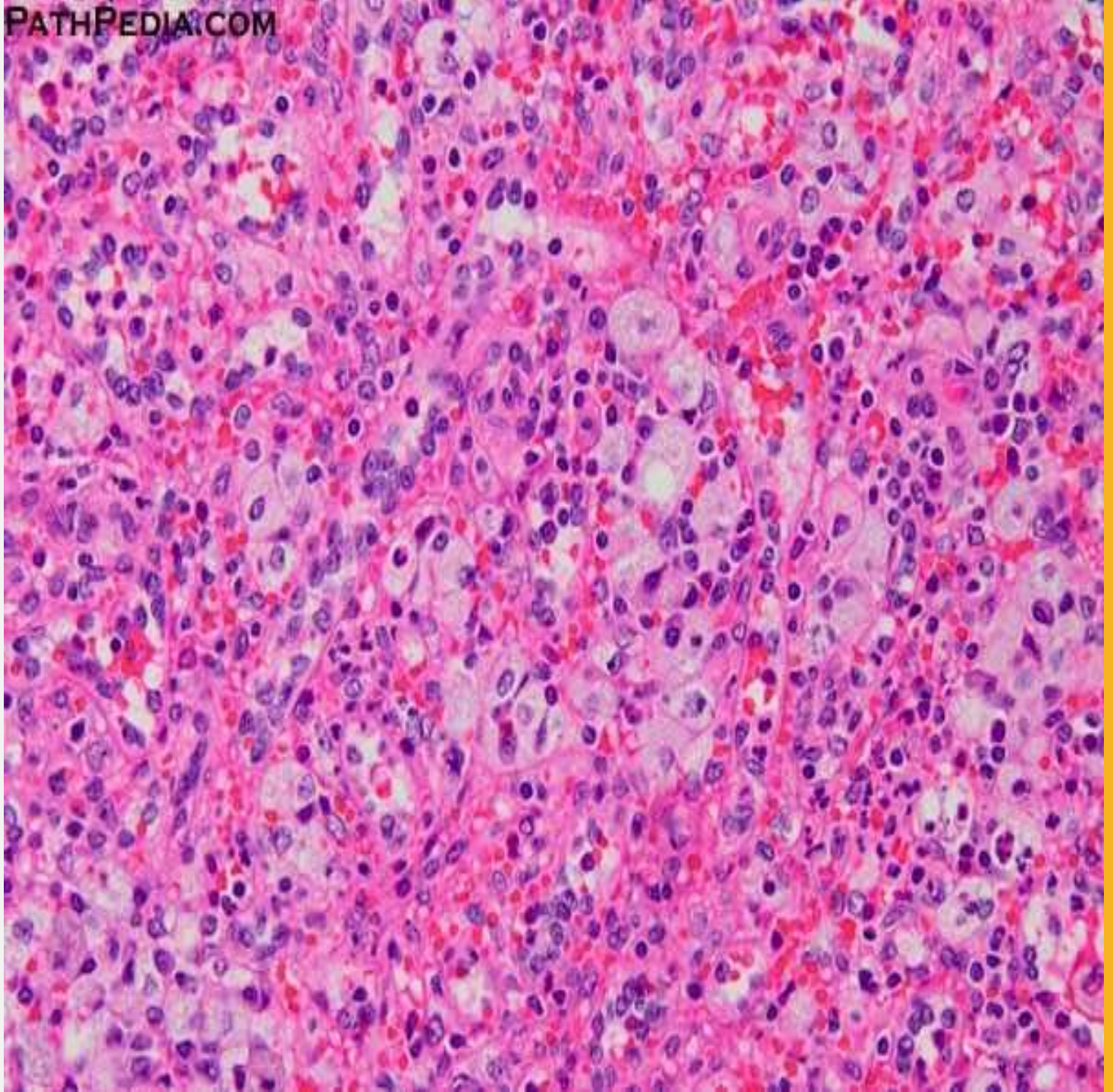
Red pulp with numerous foamy histiocytes ,

Treated ITP with steroids no hyperplastic lymphoid follicles

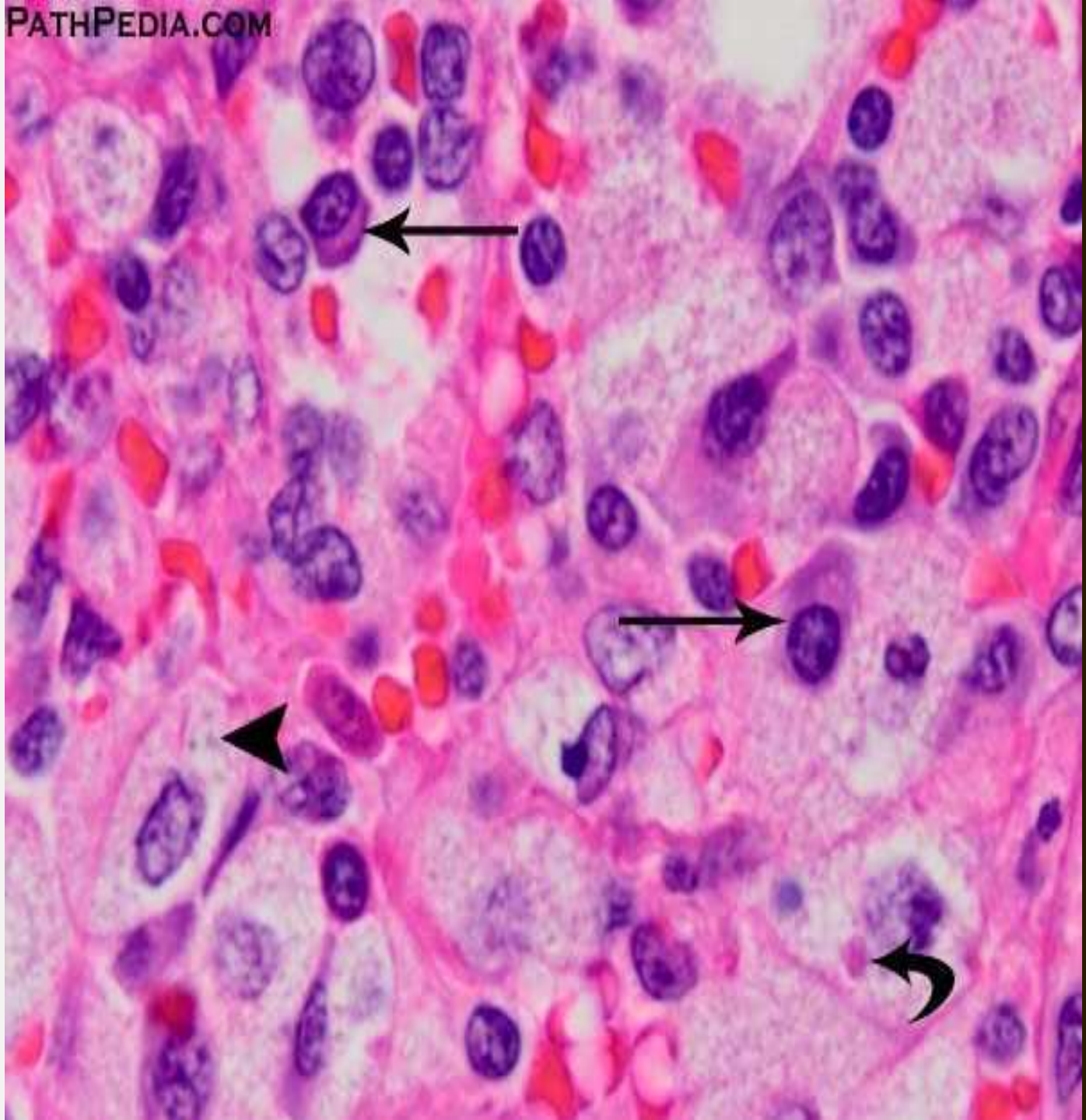


- *Singly-scattered and clusters of foamy macrophages in the red pulp*

- *Presence of numerous histiocytes may be mistaken for storage diseases such as Gauchers or Niemann-Pick disease*



- *The arrowhead shows a histiocyte*
- *Curved shows a histiocyte with an engulfed platelet.*
- *Long arrows show plasma cells*

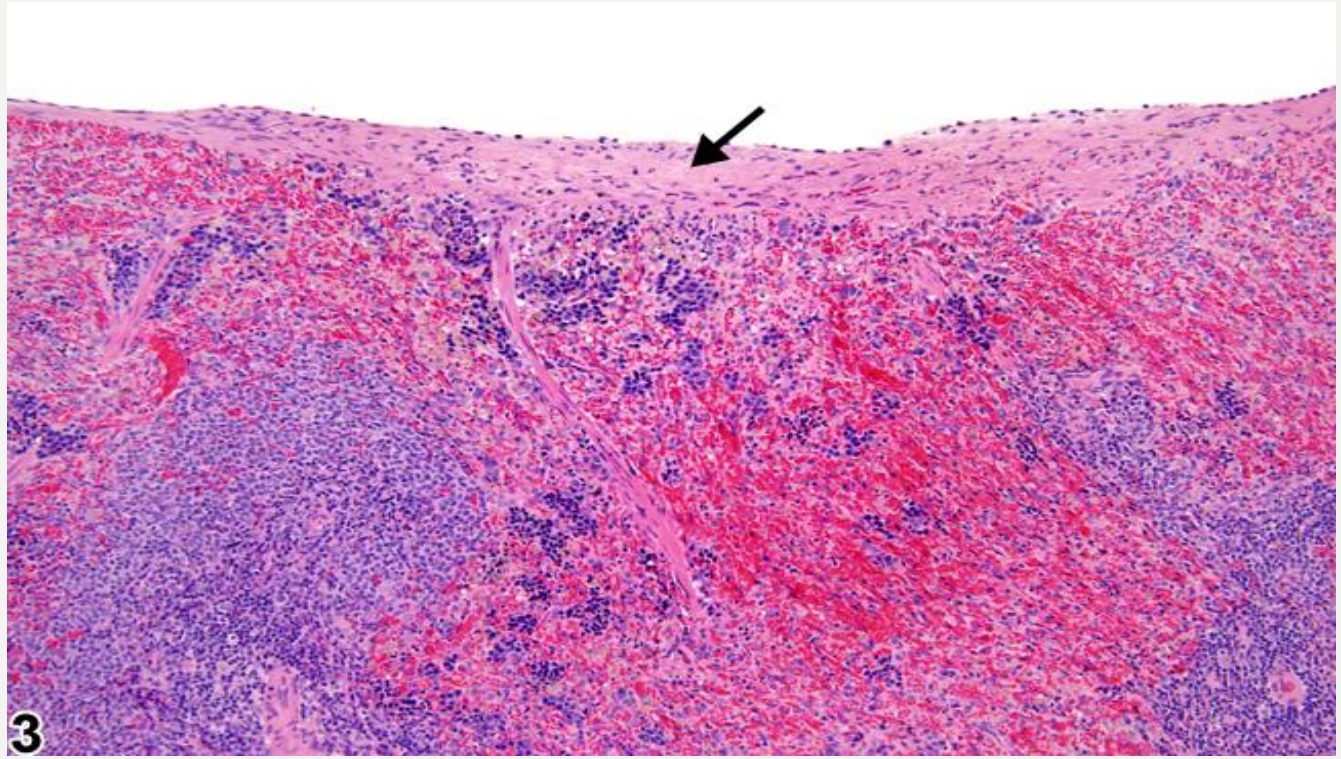


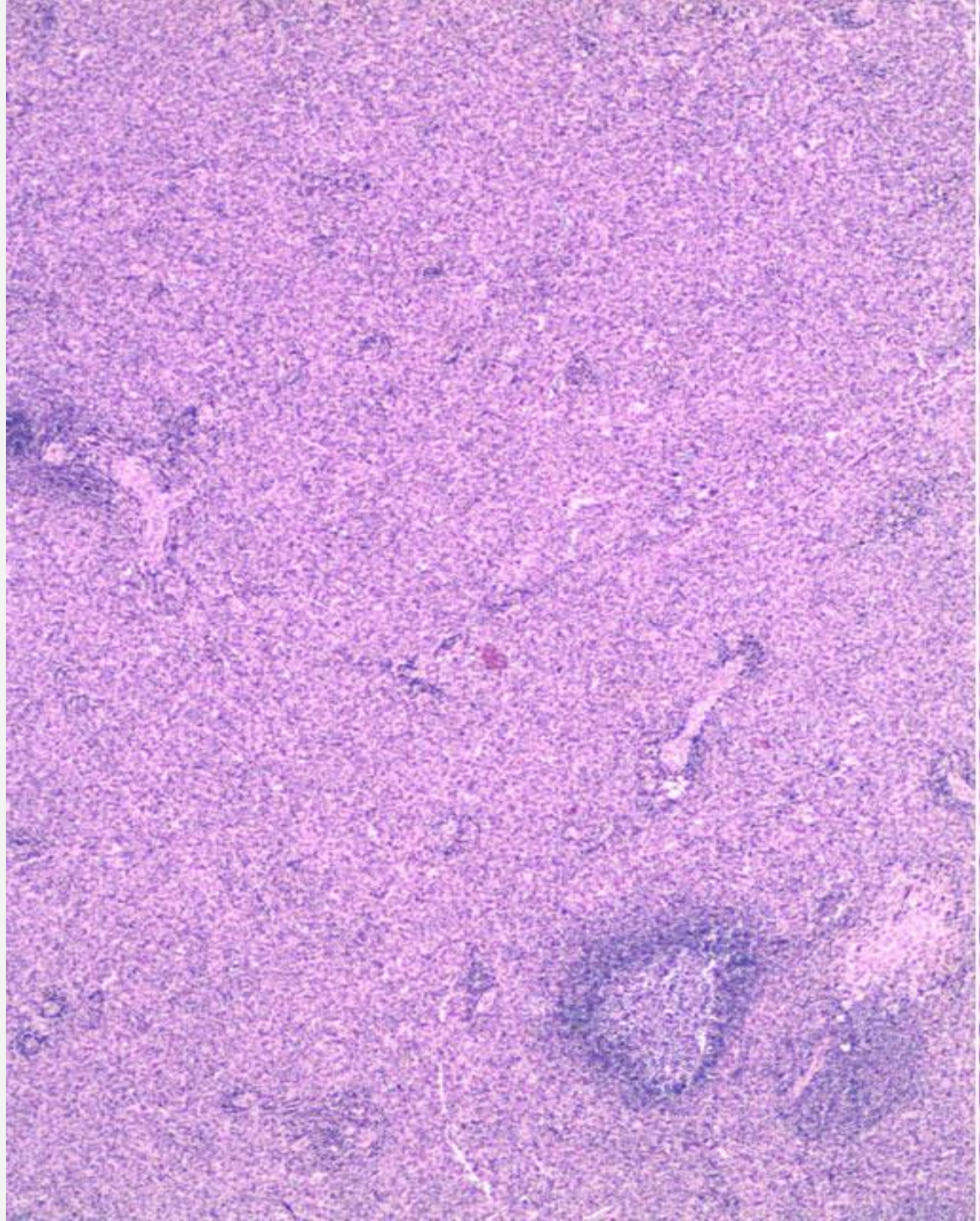
CONGESTIVE SPLENOMEGALY

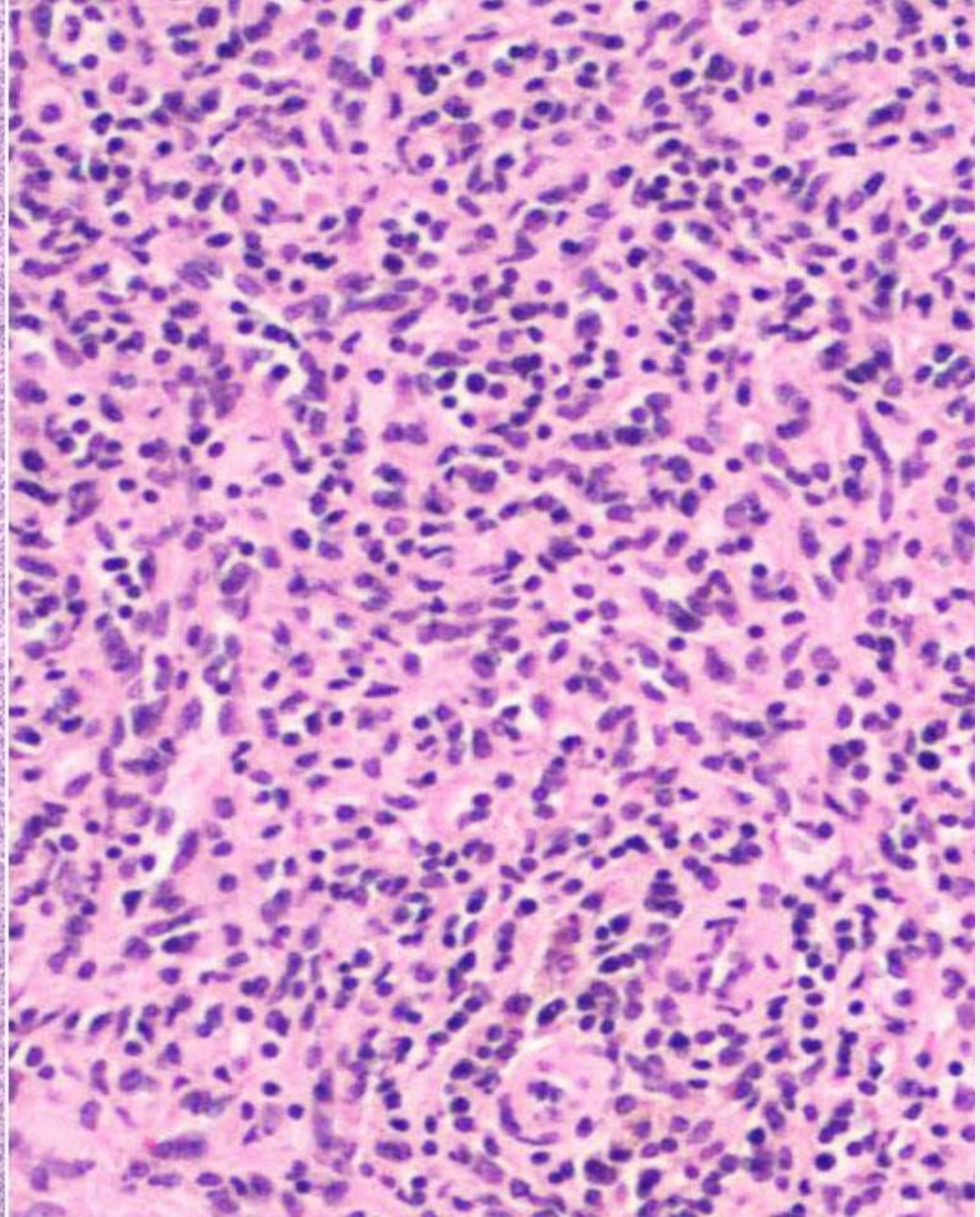
- *Budd-Chiari*
- *Cirrhosis*
- *Congestive heart failure*
- *Portal vein stenosis*
- *Thrombosis*
- *Banti's syndrome: idiopathic portal hypertension,*
  fibroelastosis in portal tracts ,
  dilated capillaries ,
  phlebosclerosis

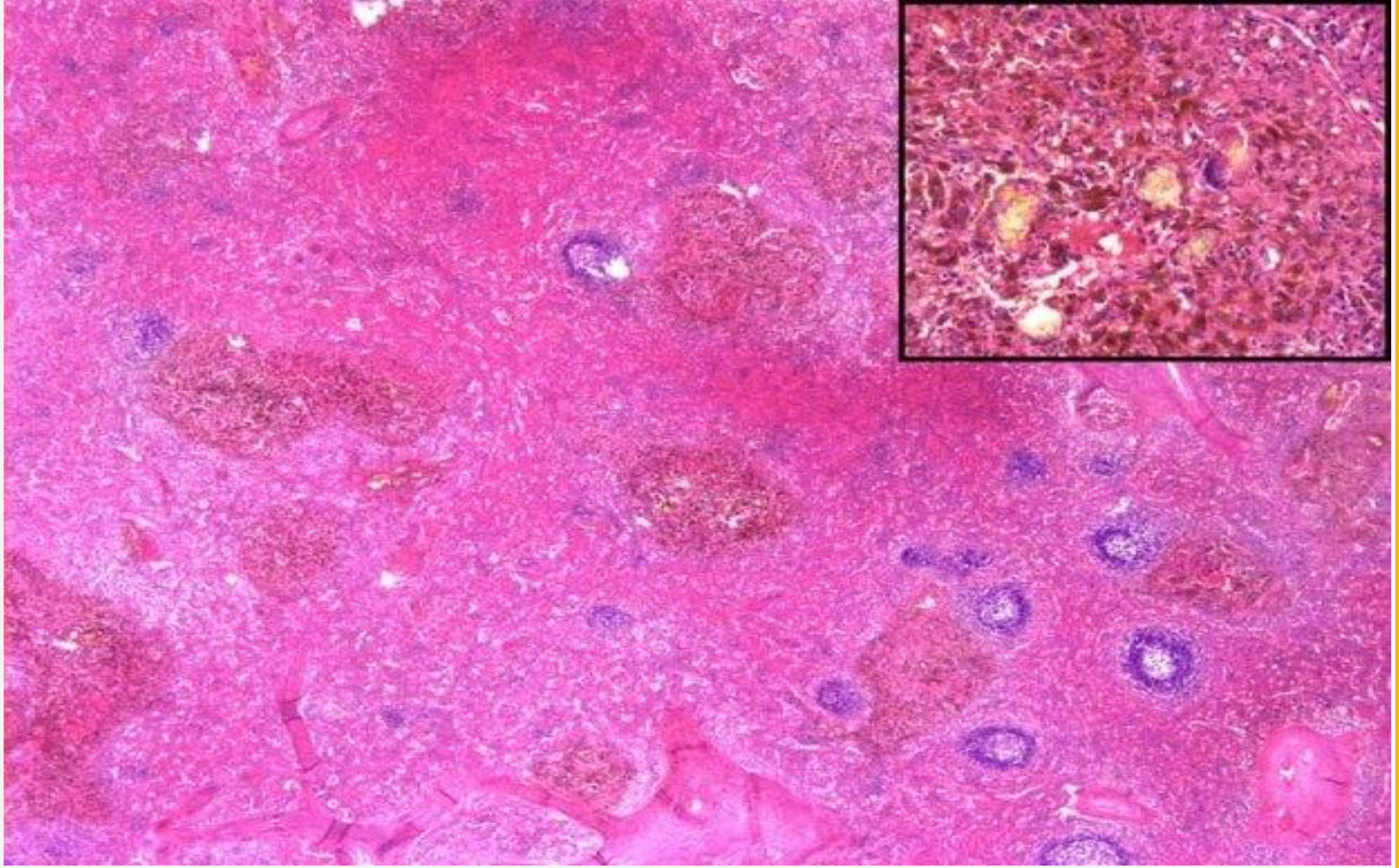
MICROSCOPY :

- *Fibrous thickening of capsule*
- *Dilatation of sinuses and veins*
- *Fibrosis of red pulp*
- *Accumulation of hemosiderin containing macrophages*
- *Sclerosiderotic nodules (“Gamna-Gandy bodies”)*
- *Focal hemorrhages*









Thank you very much for listening.....