

Author(s): Gerald Abrams, M.D., 2009

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Circulatory Derangements I

M1 – Cardiovascular/Respiratory
Sequence

Gerald Abrams, MD

Fall 2008



Circulatory Derangements

- I -Congestion, Edema
- II -Hemorrhage
- III-Thrombosis
- IV-Embolism, Ischemia, Infarction
- V –Atherosclerosis, Ischemic Ht. Disease

CONGESTION

Too much blood in an area

Within the cardiovascular system
(unlike hemorrhage)

Vessels engorged with blood

ACTIVE CONGESTION (hyperemia)

Increased flow into the area

-erythema-

PASSIVE CONGESTION

Decreased outflow from area

-cyanosis-

Normal



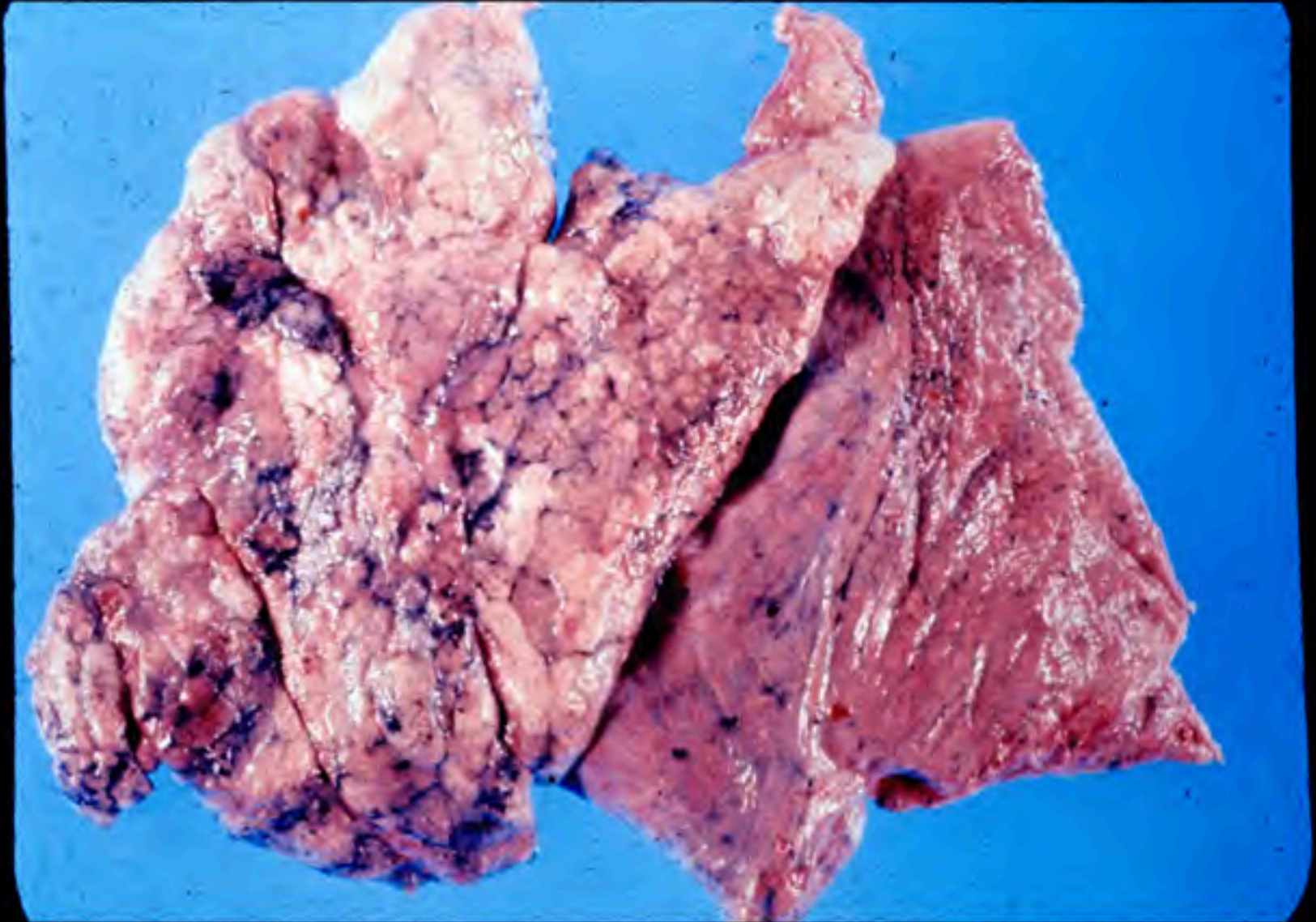
Active Congestion
hyperemia/erythema



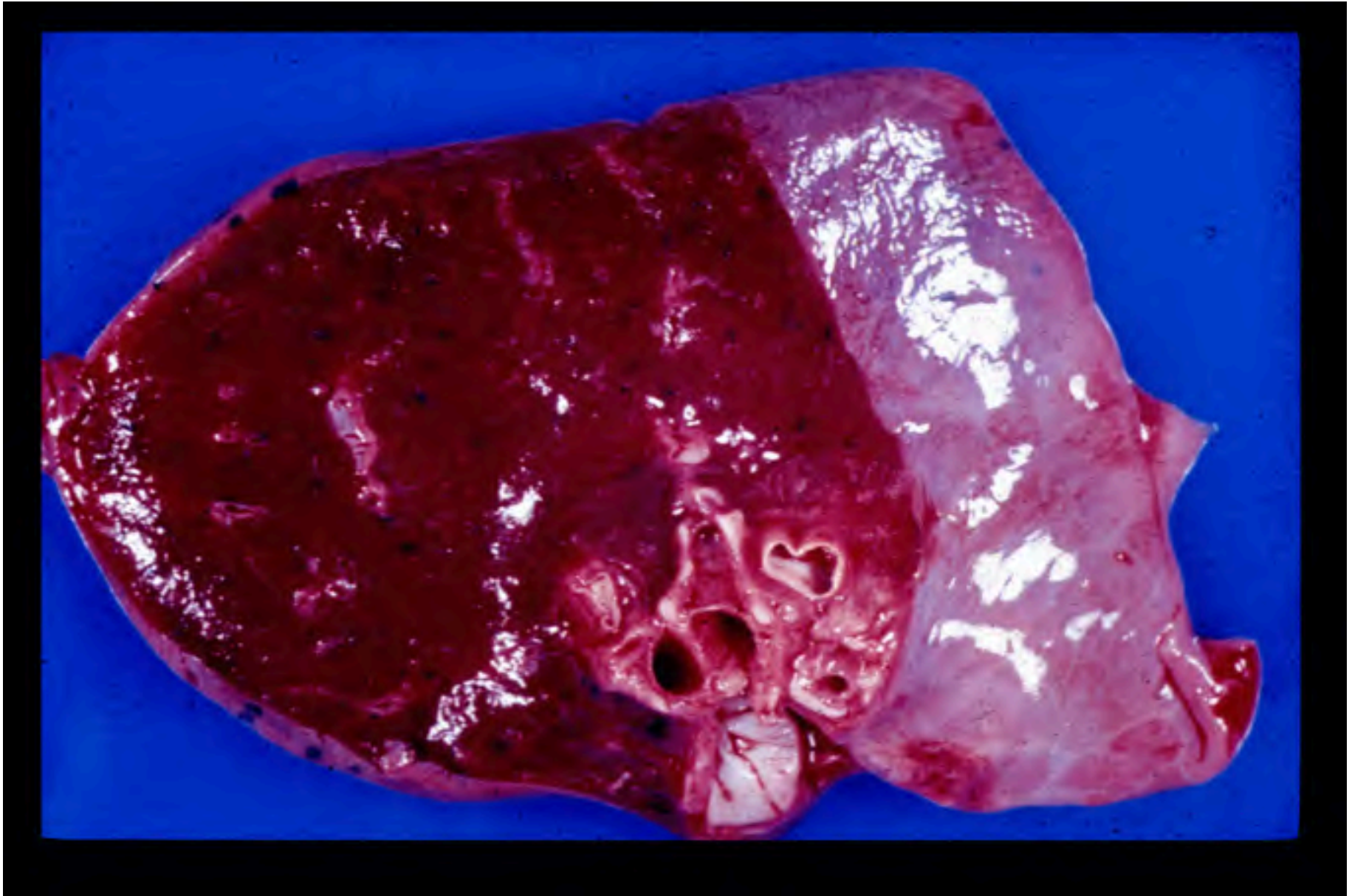
Passive Congestion
cyanosis/hypoxia



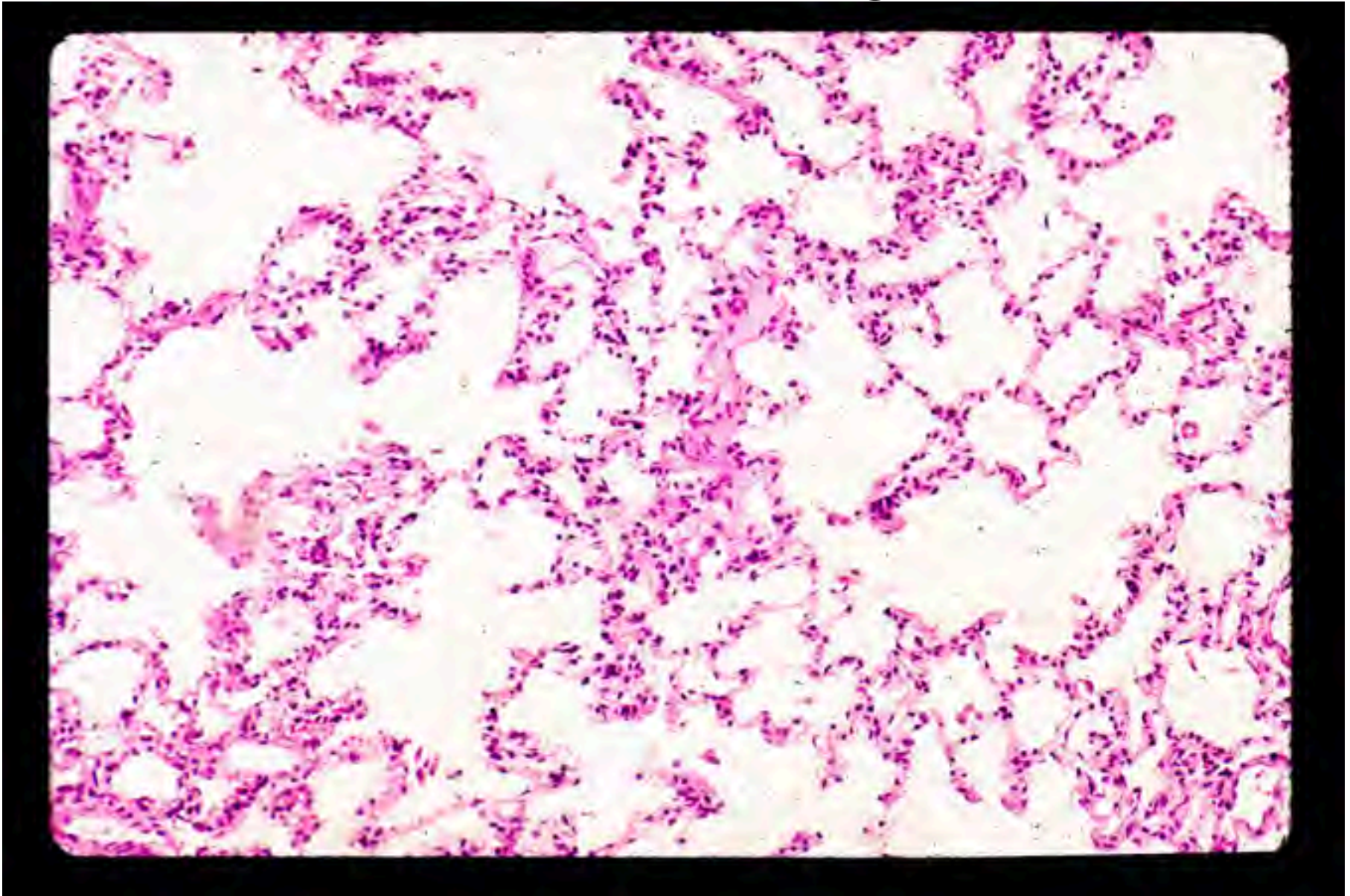
Normal Lung



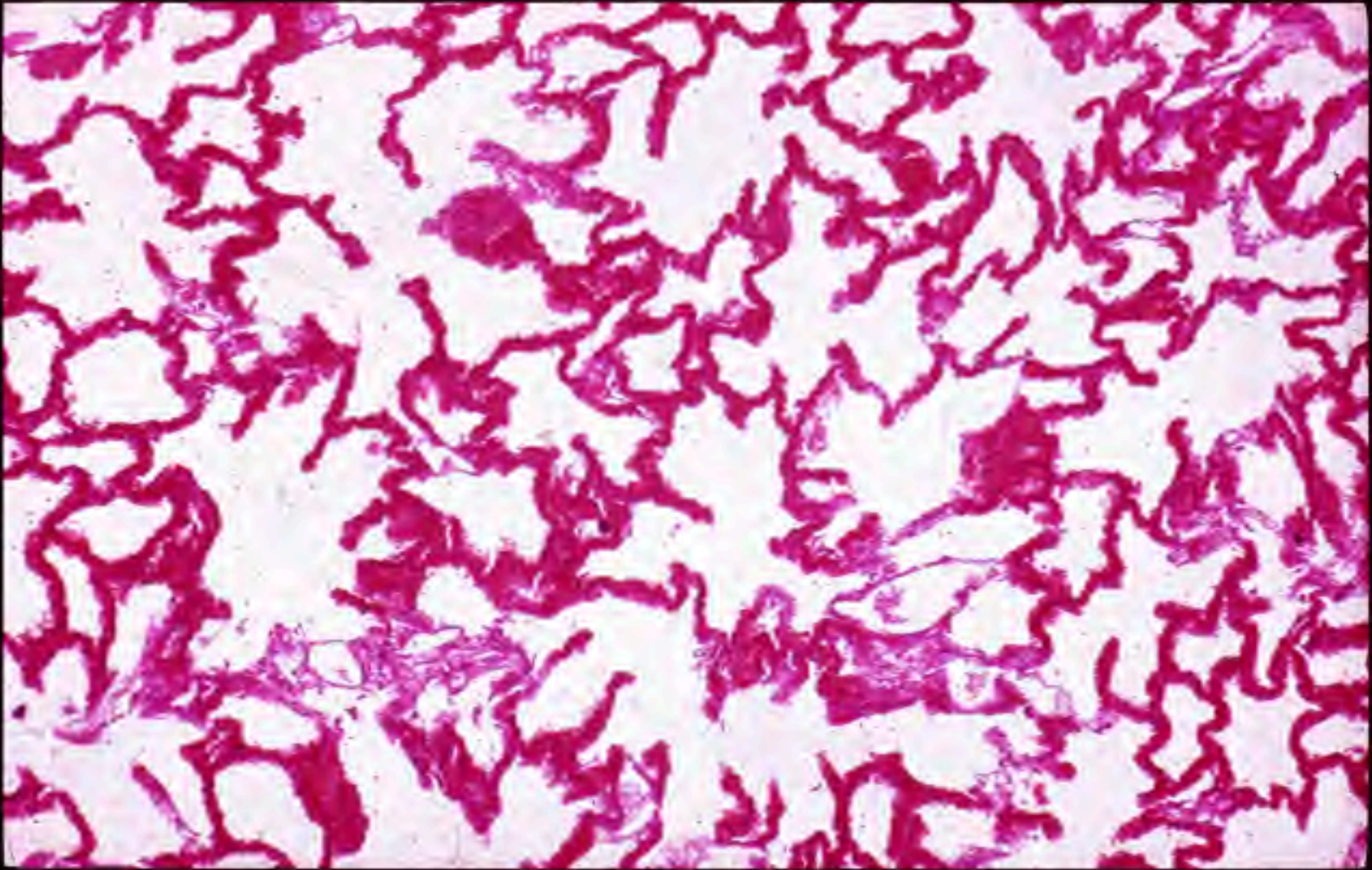
Congested Lung



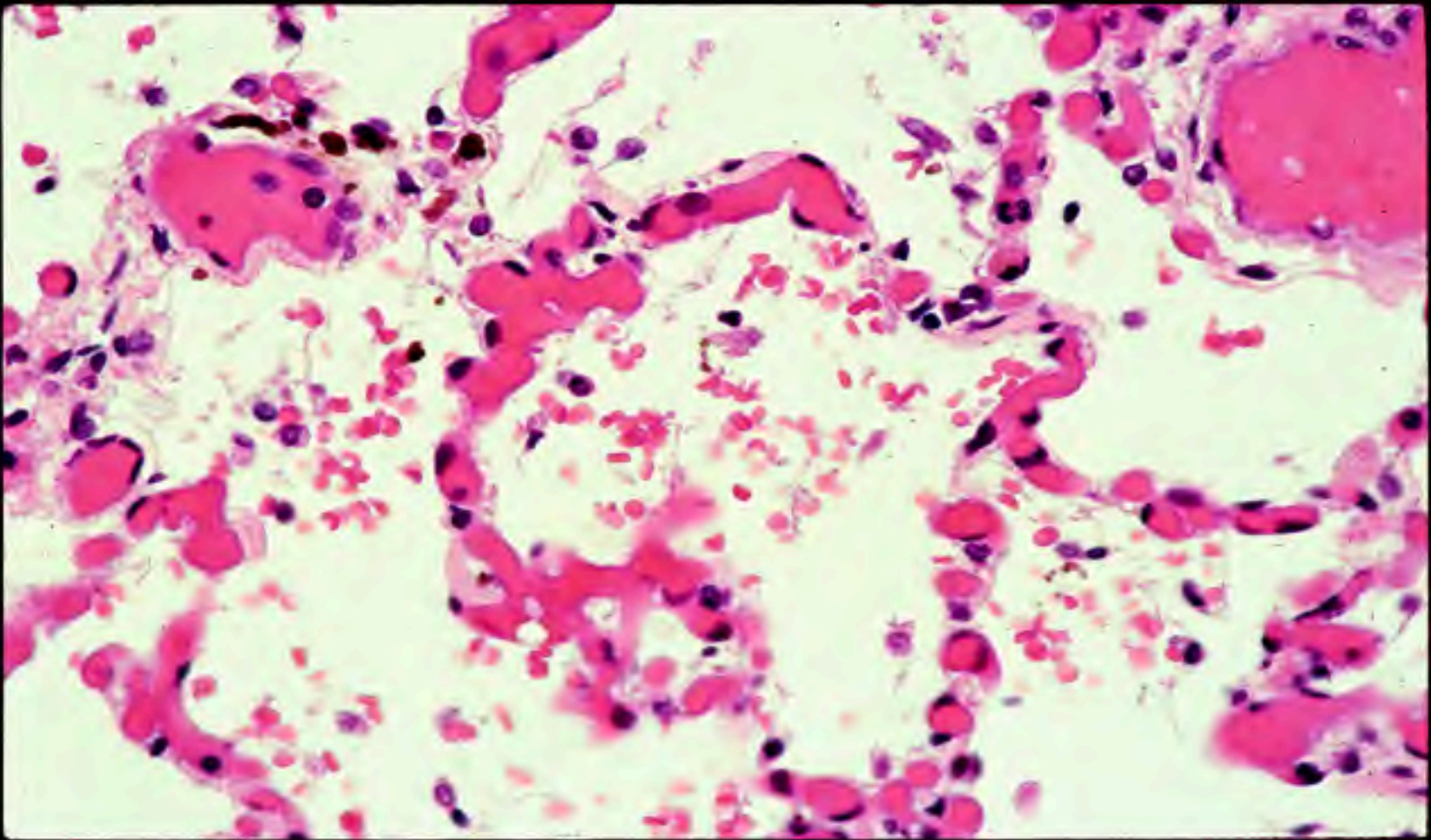
Normal Lung



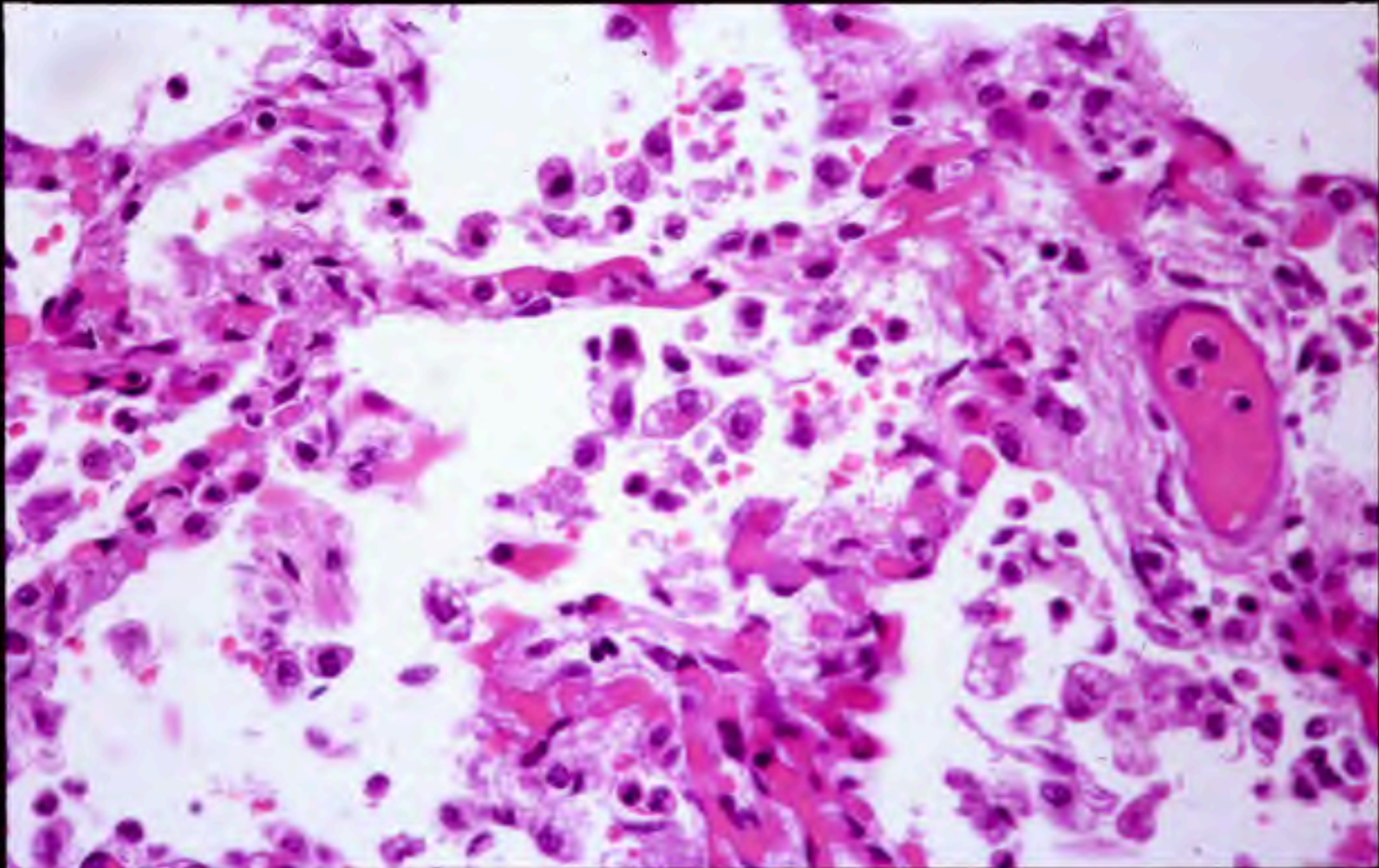
Congested Lung



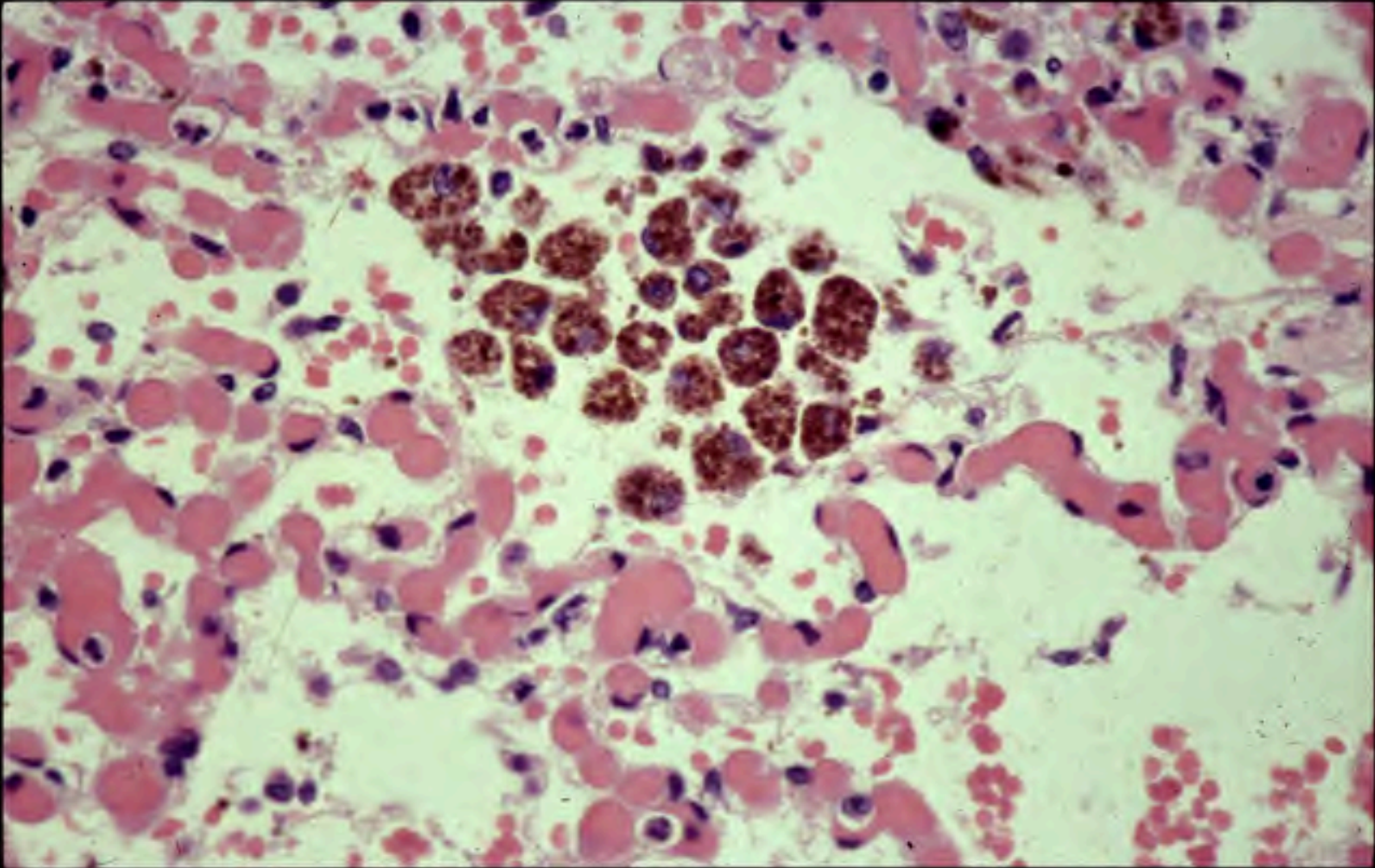
Congested Lung Hemorrhage by Diapedesis



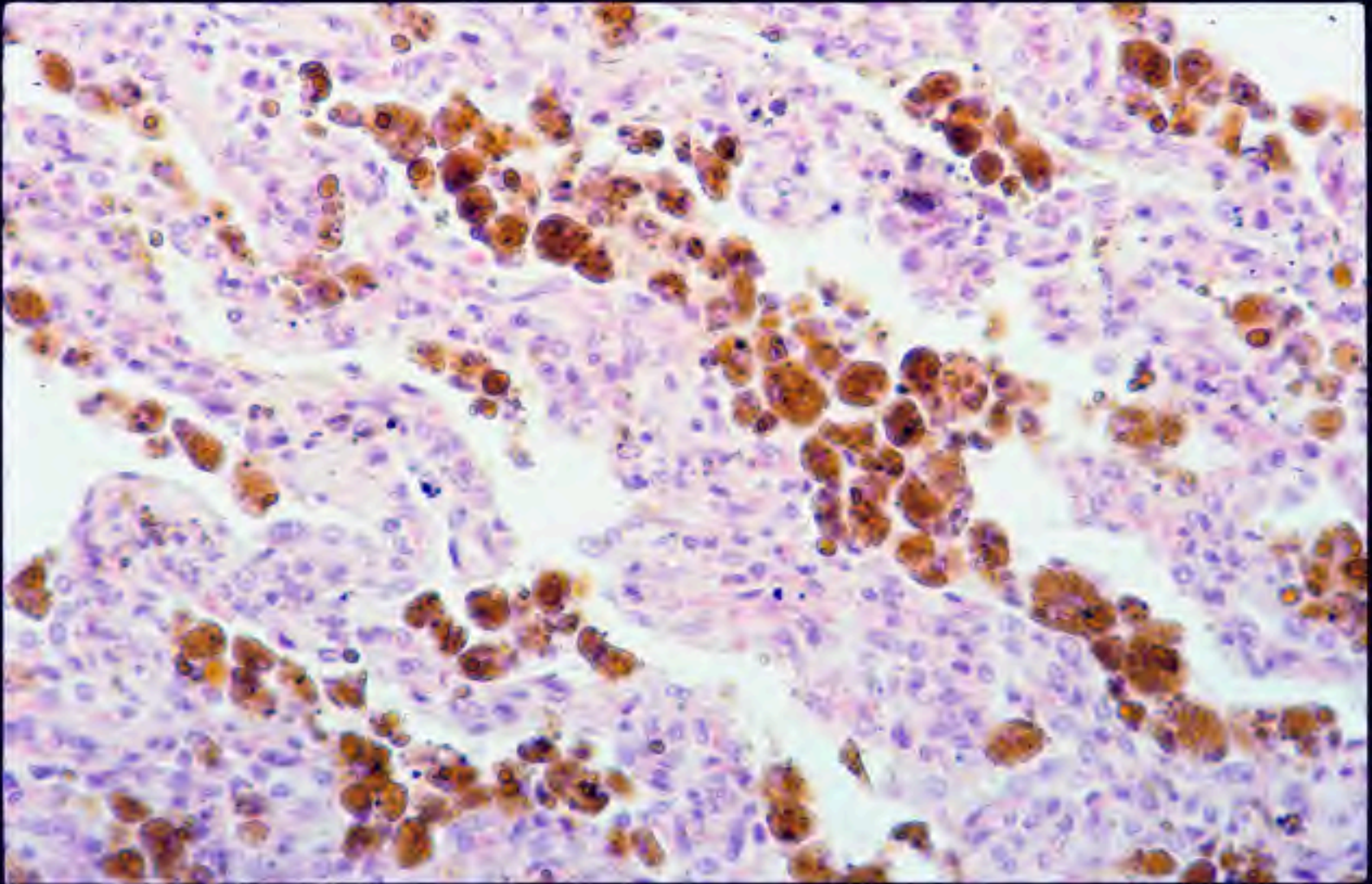
Congestion erythrophagocytosis



Early CPC

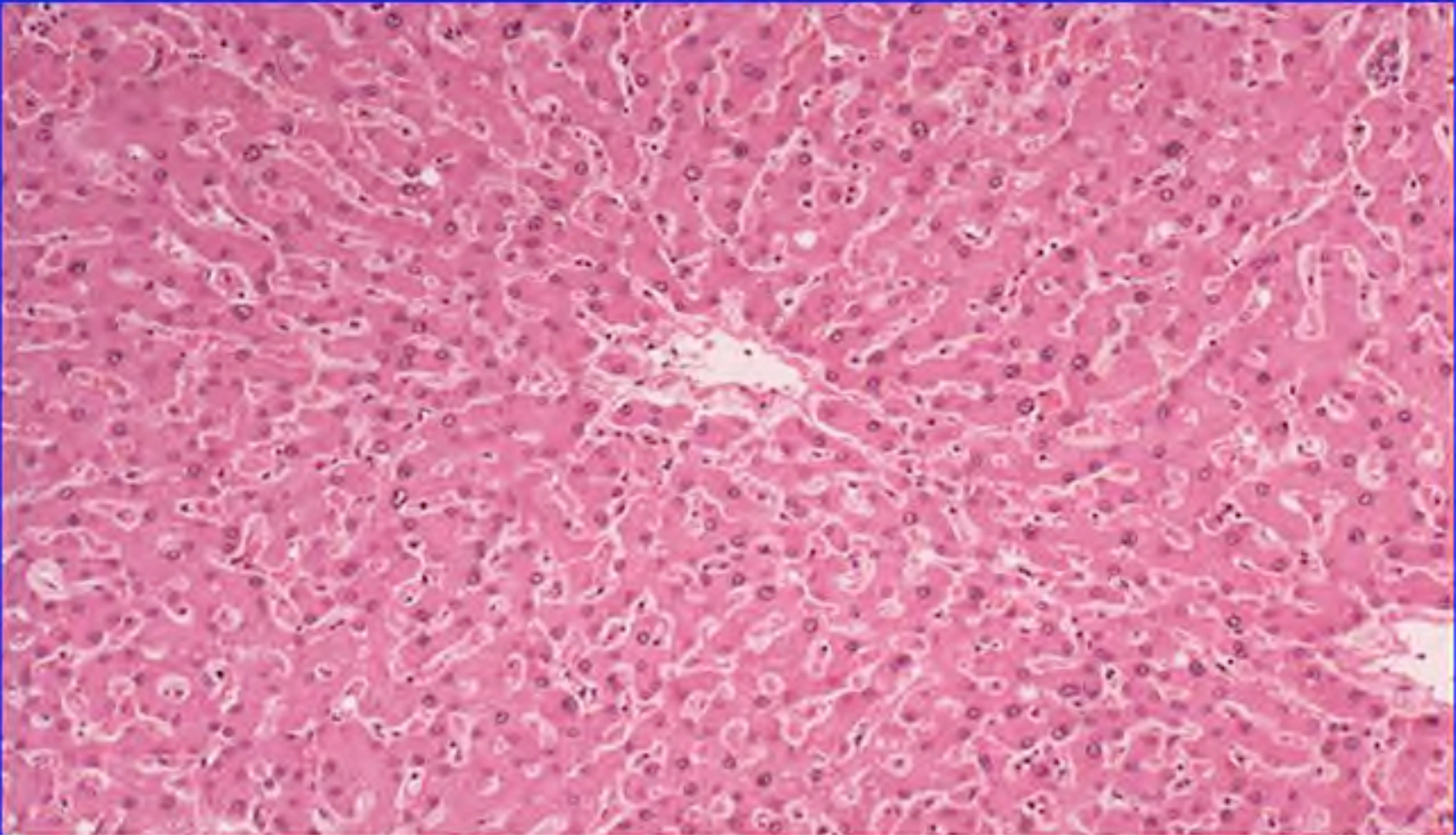


Advanced CPC

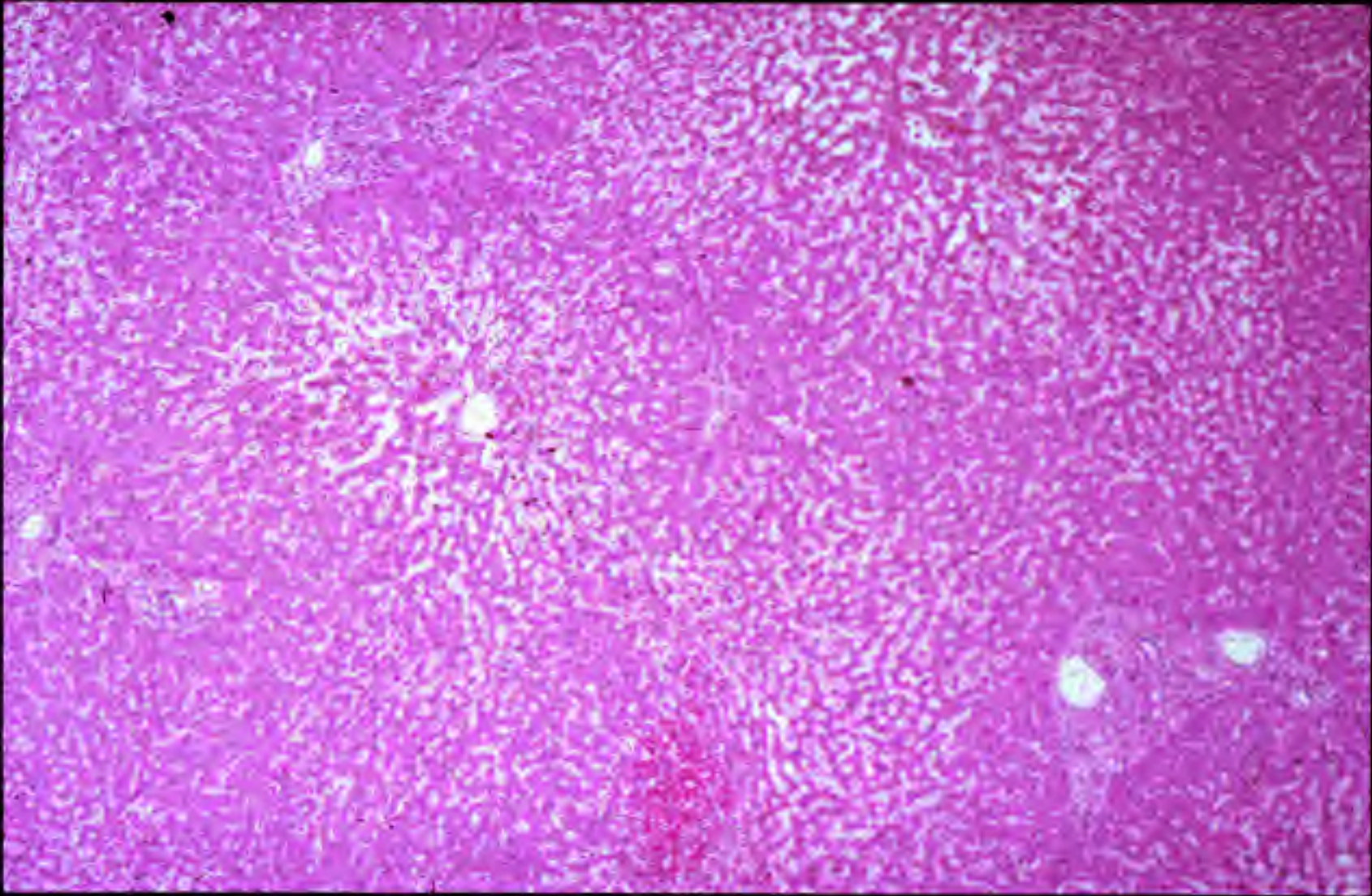


Normal liver

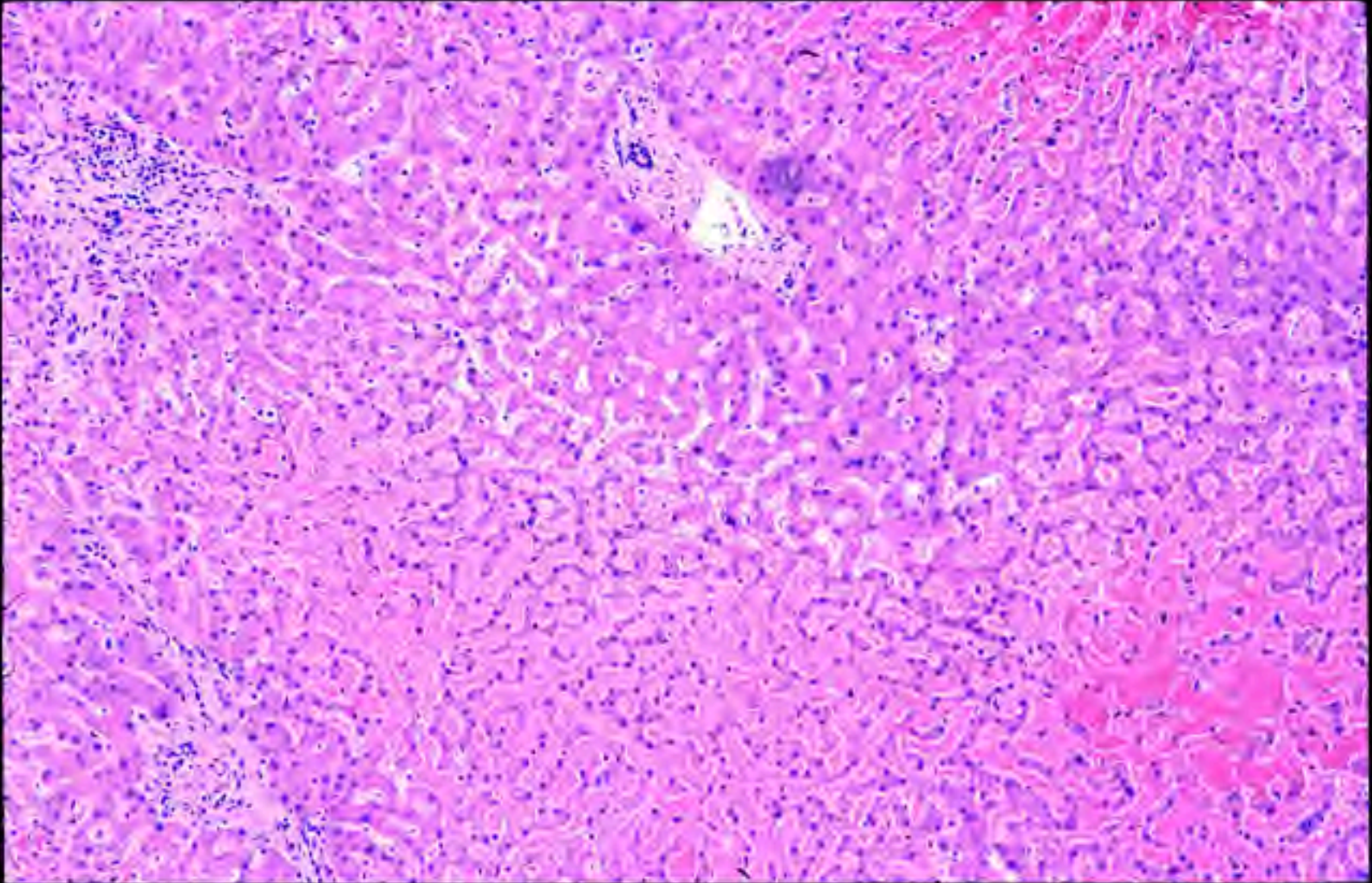
Normal Liver



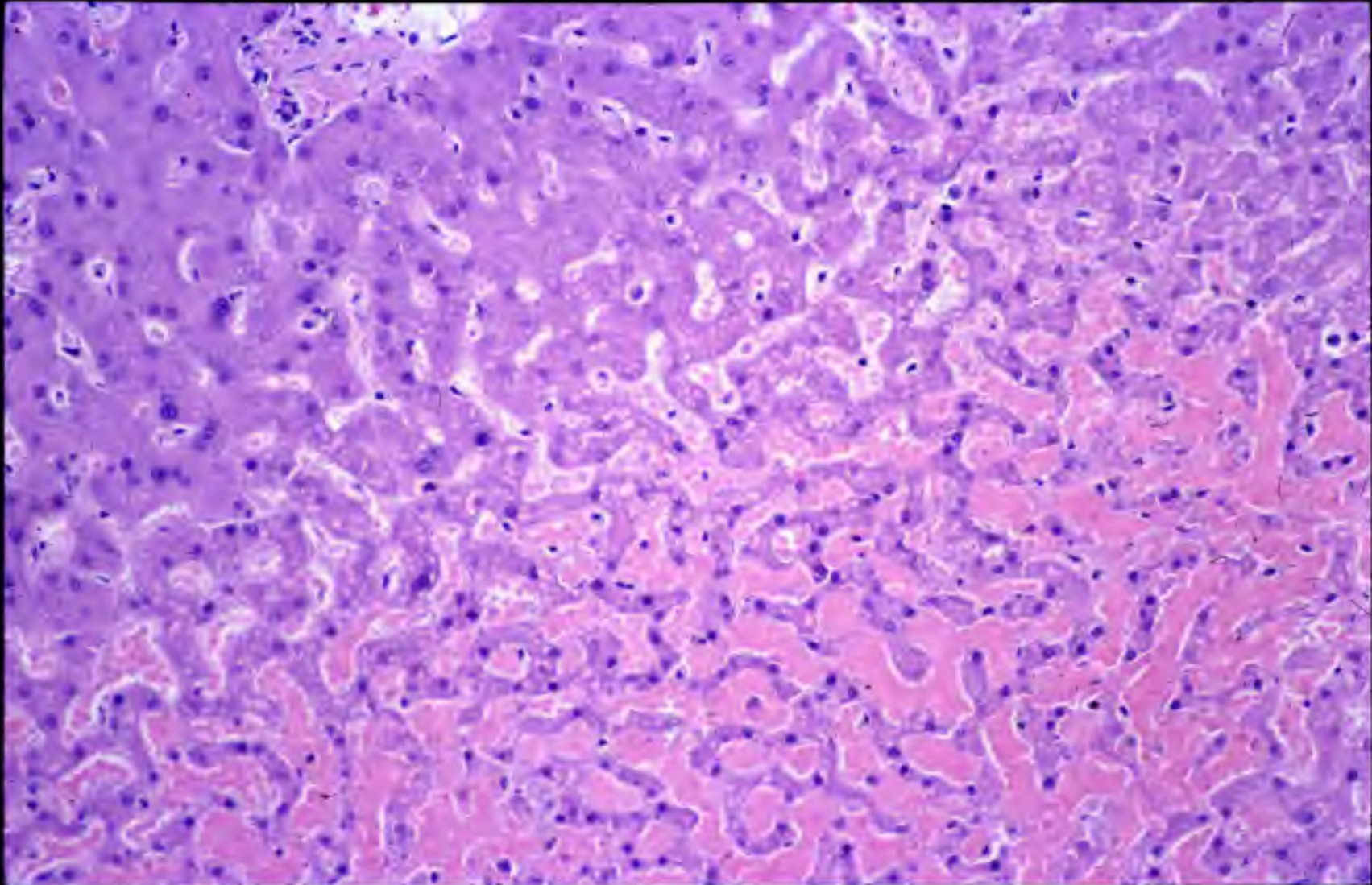
Liver – Outflow Obstruction



Liver – Outflow Obstruction

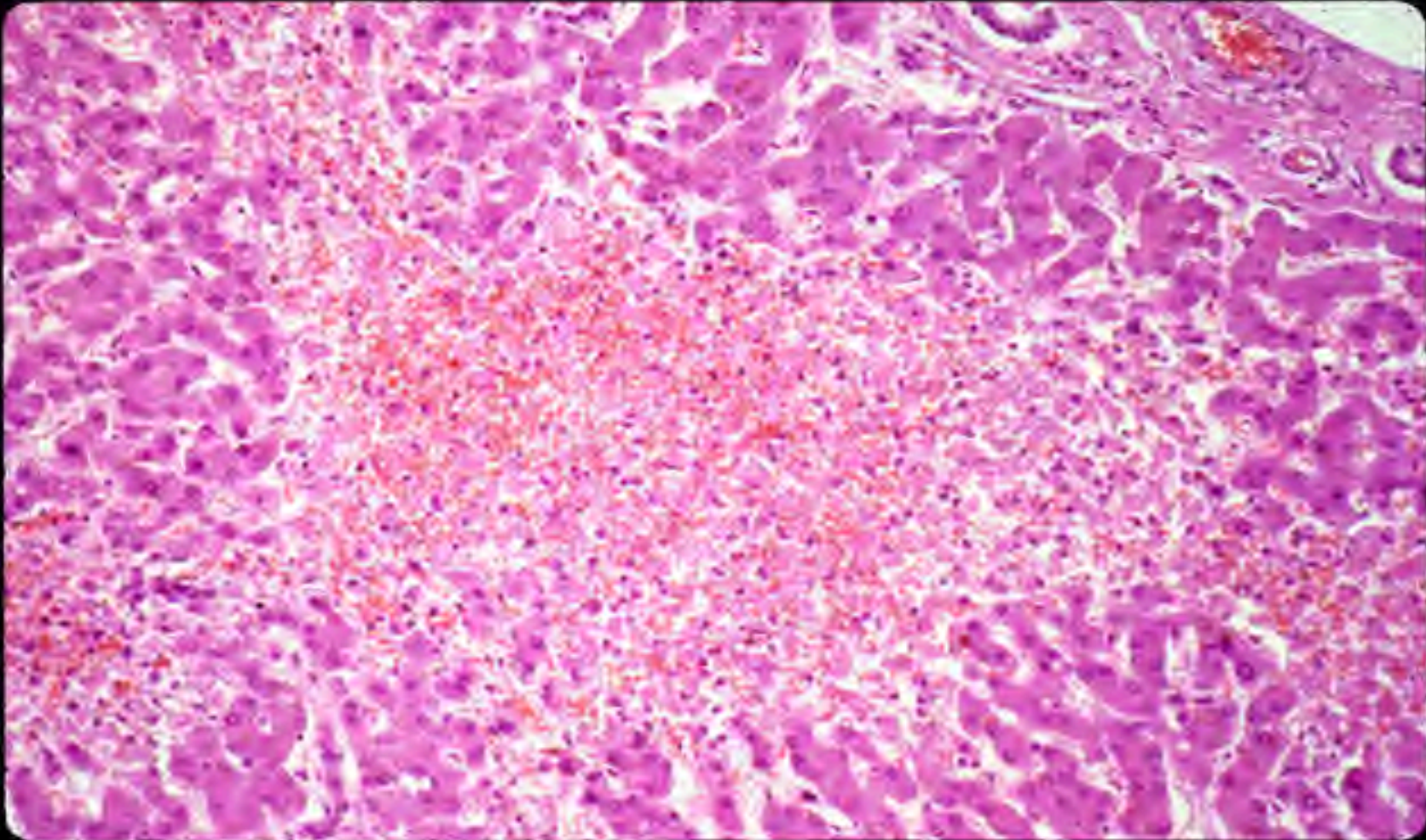


Liver – Outflow Obstruction



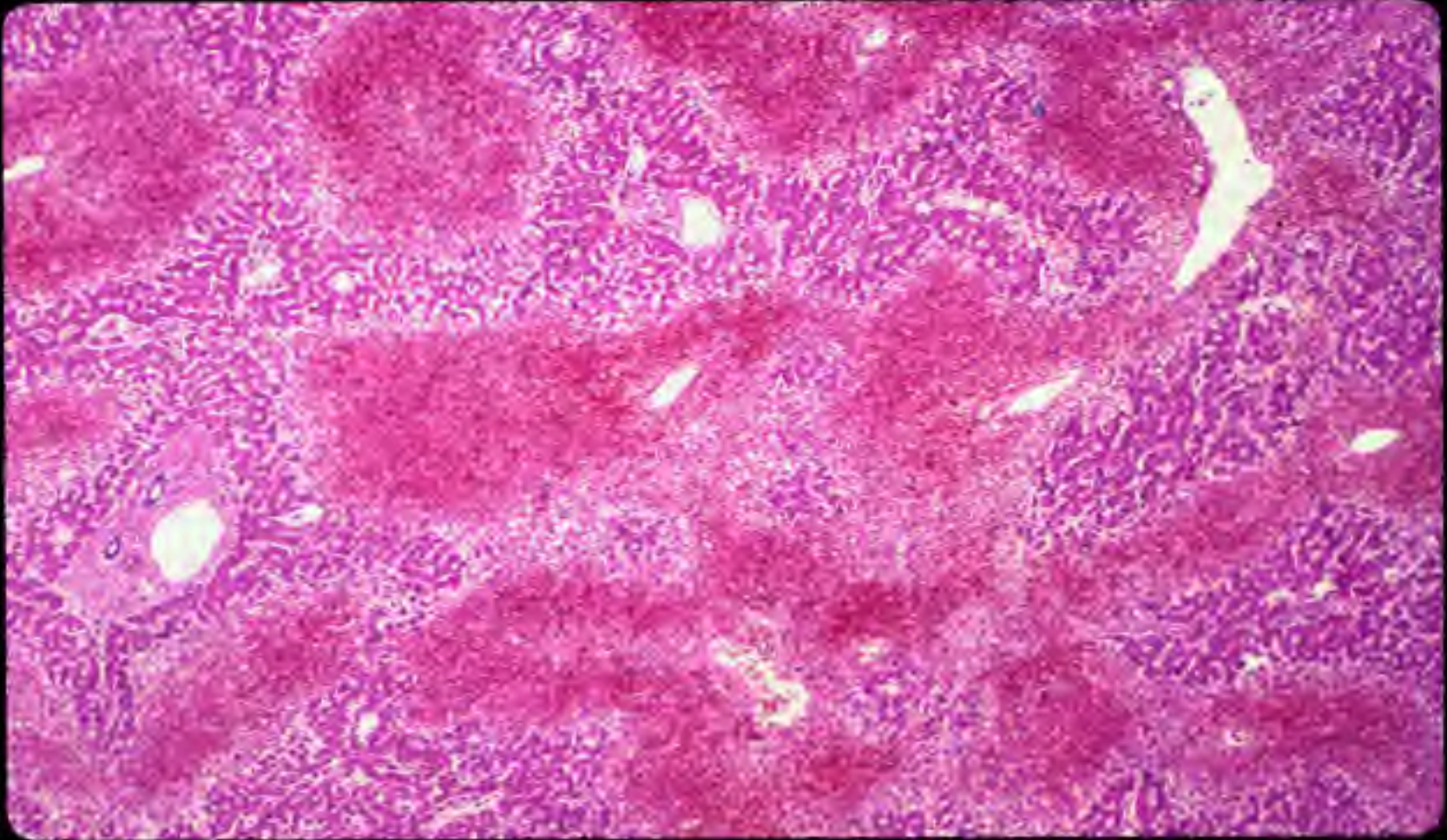
Liver

Central Hemorrhagic Necrosis

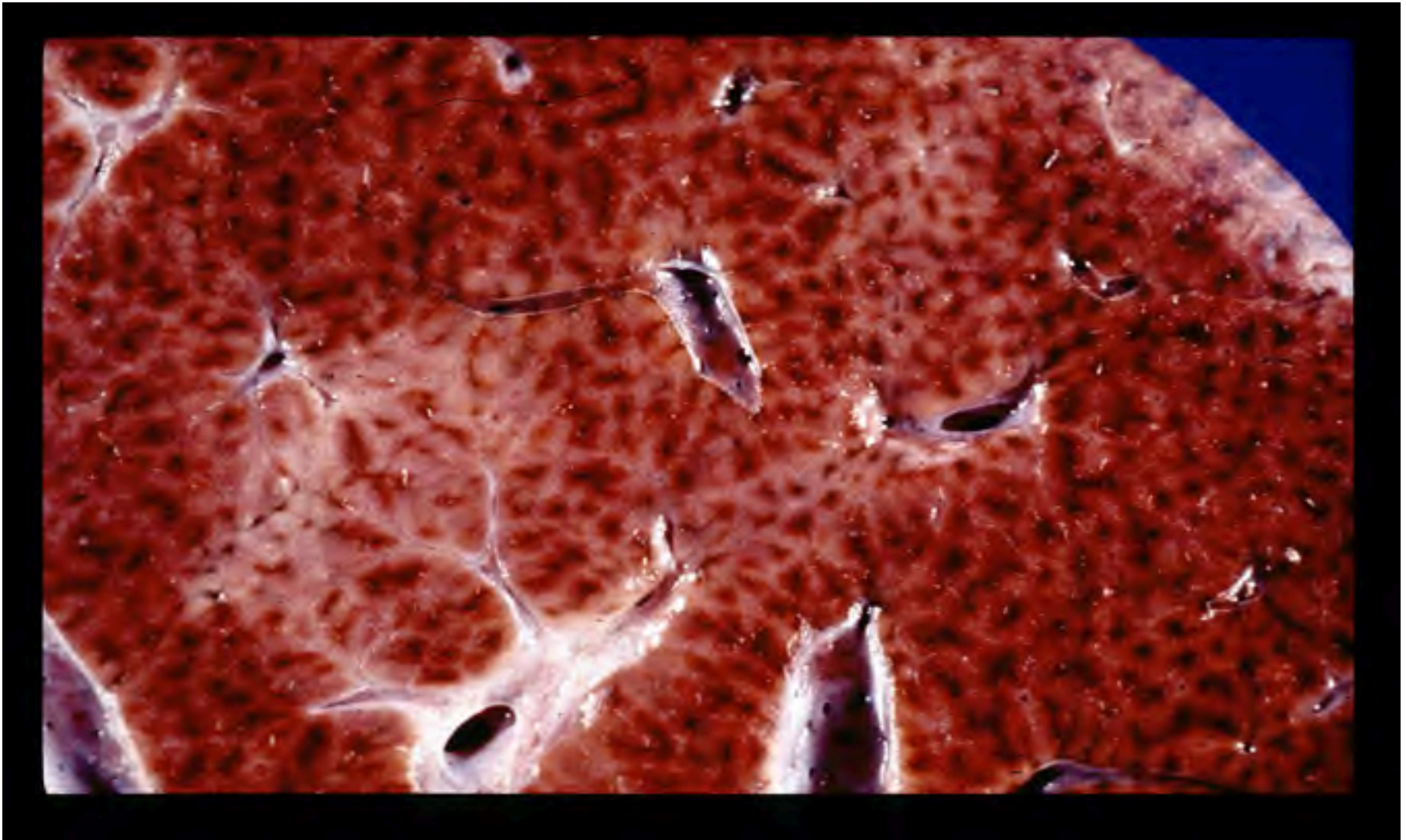


Liver

Central Hemorrhagic Necrosis

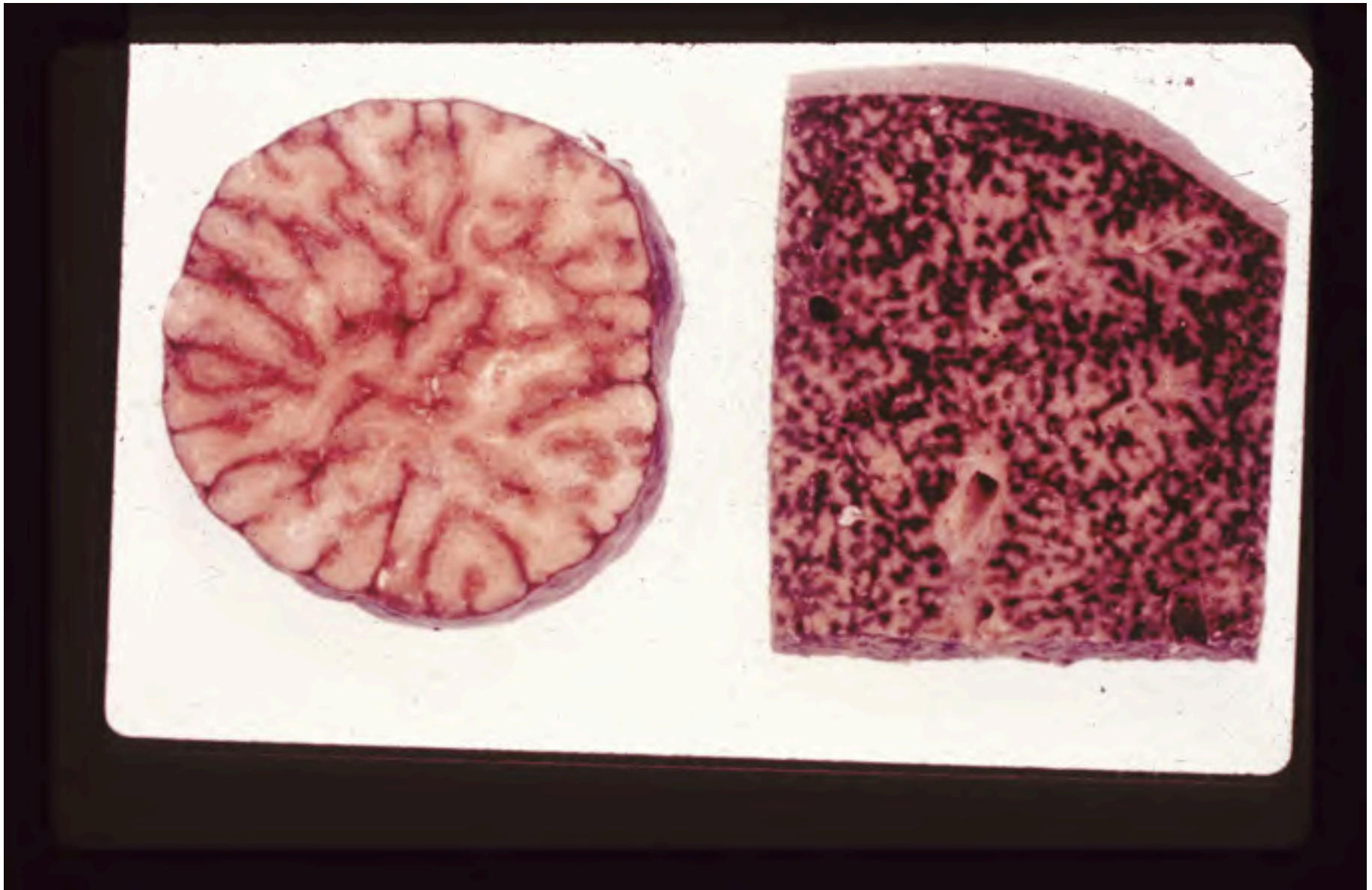


Liver Cardiac Failure



Nutmeg

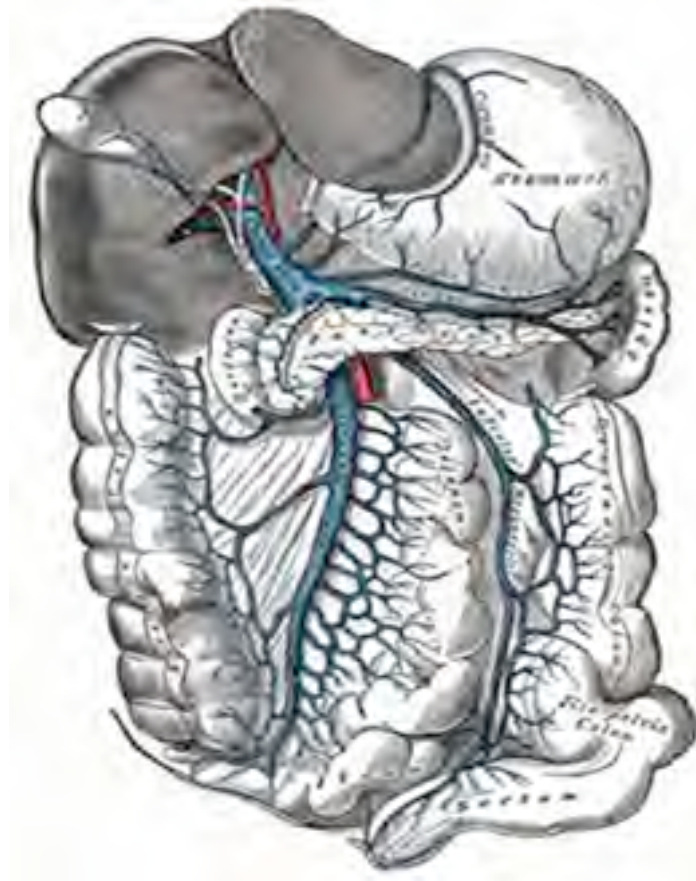
Liver



Esophageal Varices



Portal Circulation



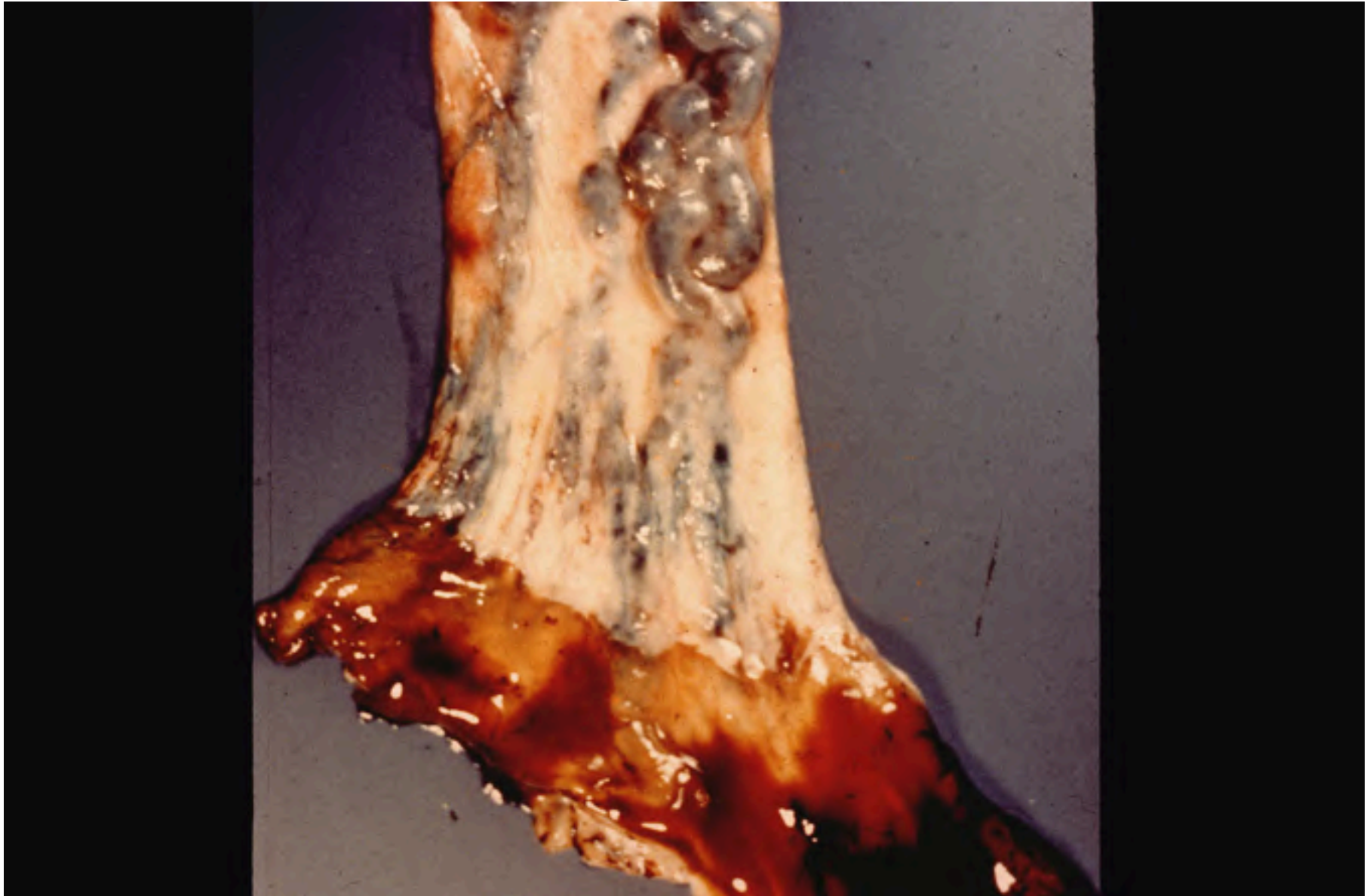
 Gray's Anatomy

Original image here: http://1.bp.blogspot.com/_DJHKI52rMWA/SfaTtEF0jql/AAAAAAAAADw/6X0s8peMvOo/s320/shared_7303_HM-06.jpg

Liver - Cirrhosis



Esophageal Varices



Esophageal Varices



EDEMA

Accumulation of excess fluid in the
interstitial spaces / body cavities

Effusion

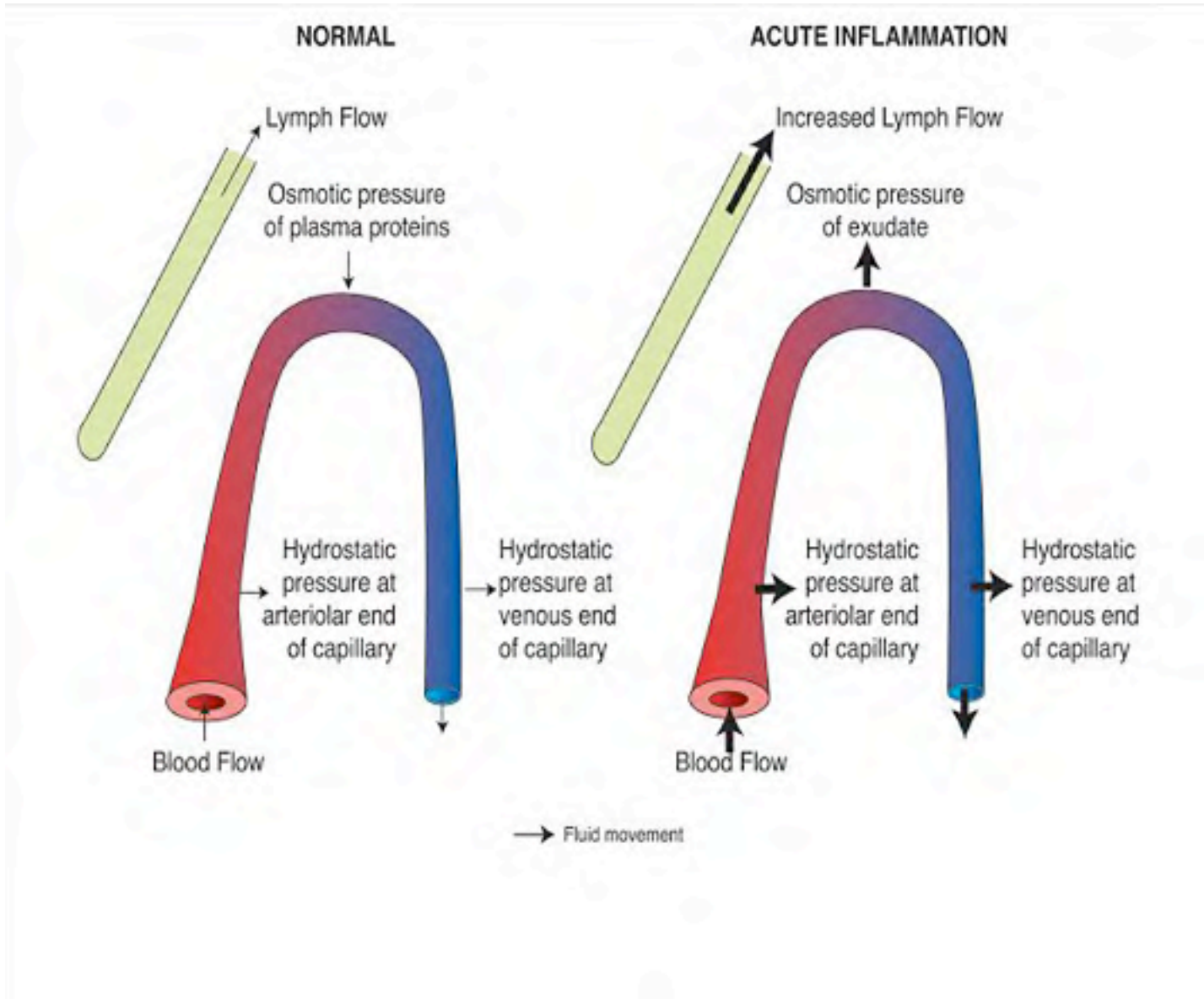
Fluid accumulation in a body cavity

Pleural Effusion

Pericardial Effusion

Peritoneal Effusion = Ascites

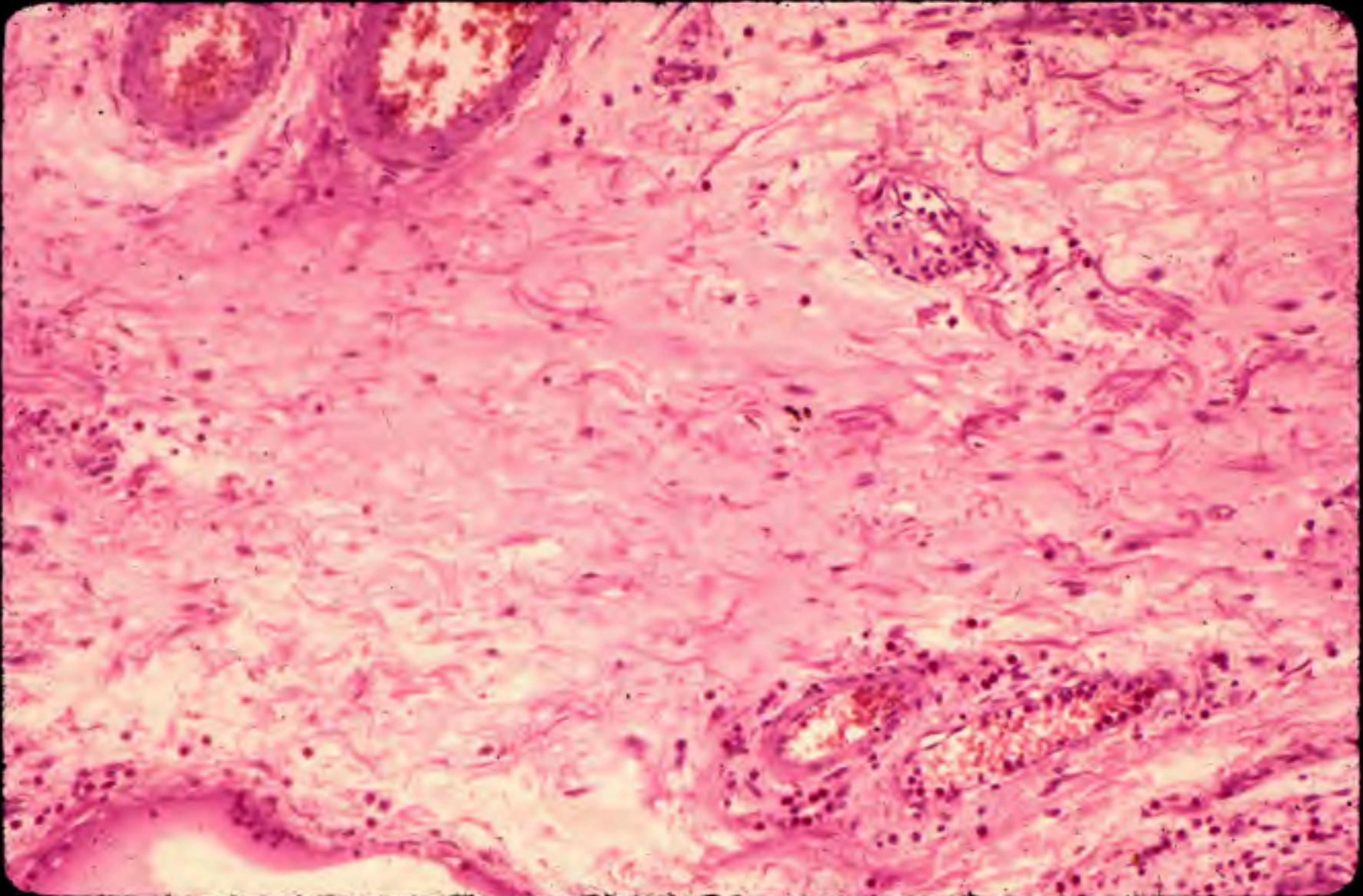
Anasarca – Generalized edema,
a water-logged body



Fluid Collections

- Inflammatory collection = Exudate
- Non-inflammatory collection = Transudate

Edematous Connective Tissue



Peripheral Edema



 miss pupik, ([flickr](#))

Pitting Edema (1)



Pitting Edema (2)



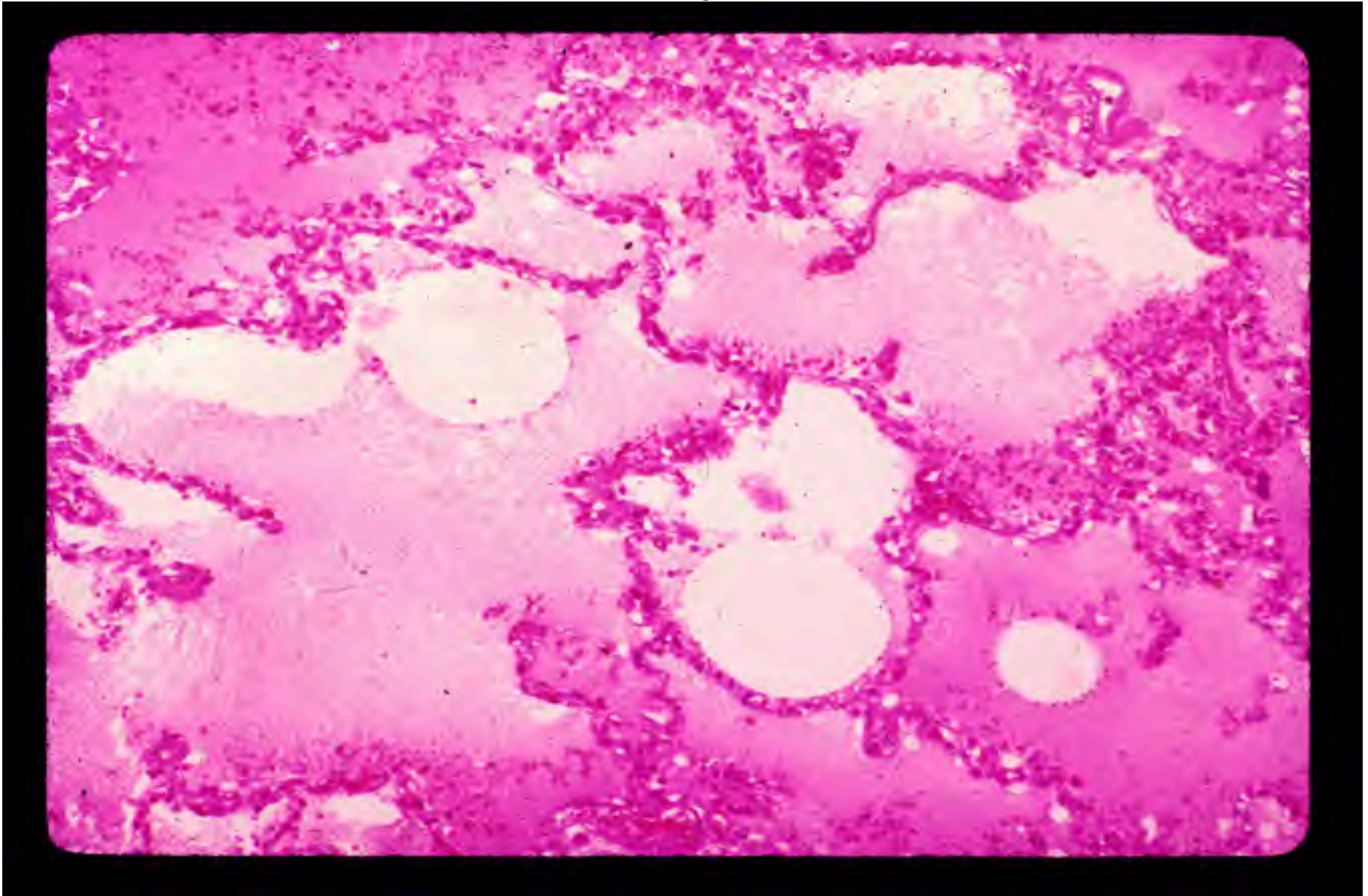
Pitting Edema (3)



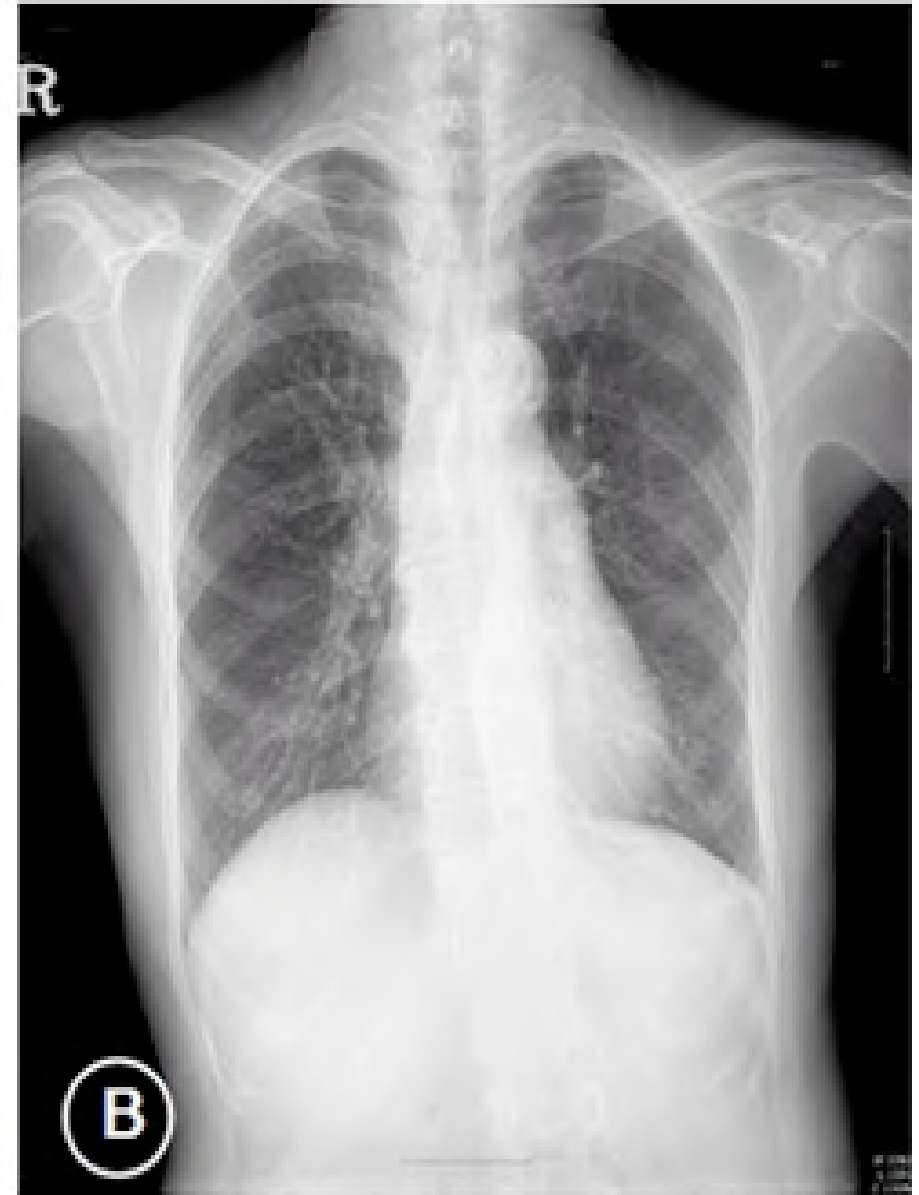
Chronic Lymphedema



Pulmonary Edema



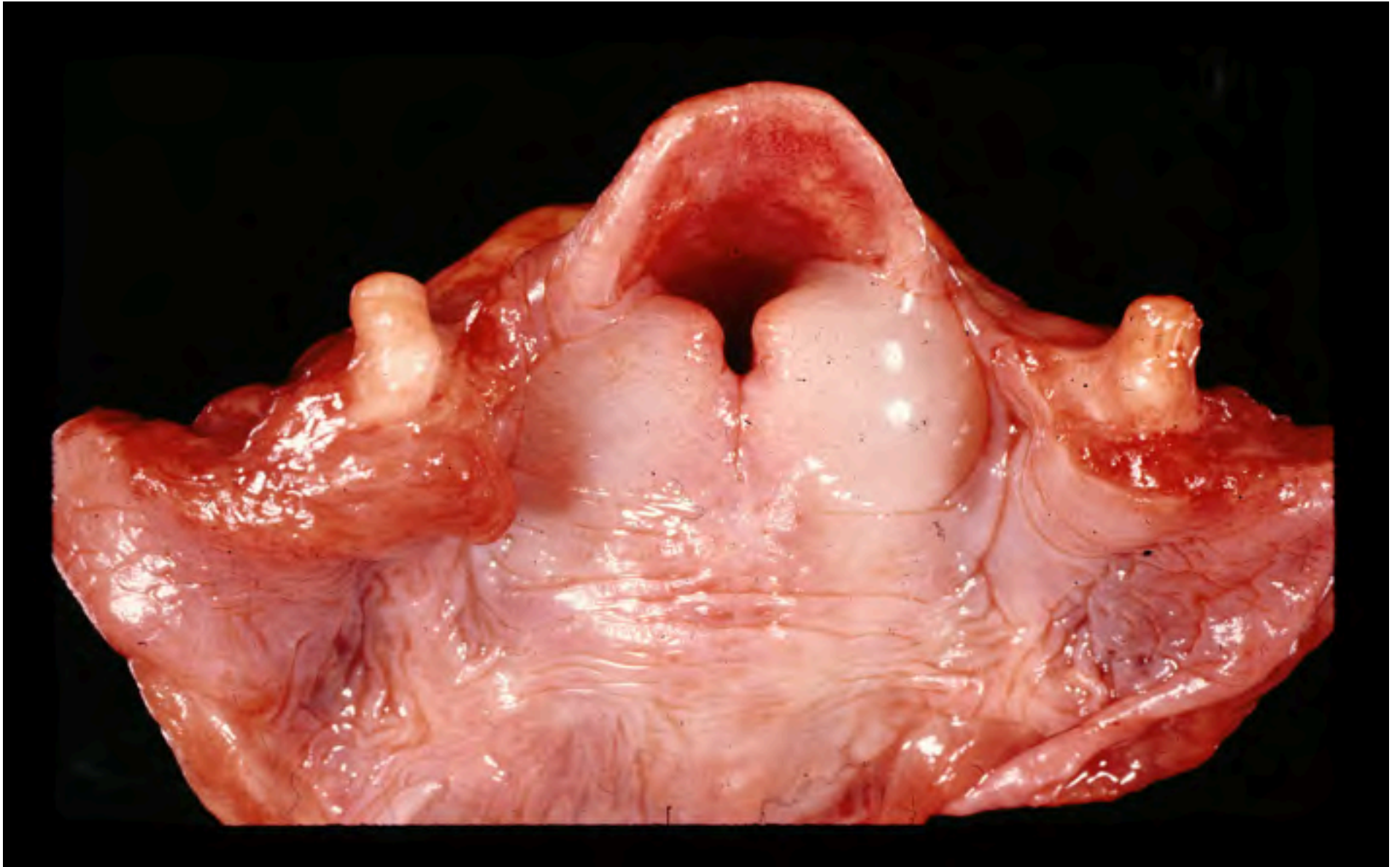
Pulmonary Edema



Pulmonary Edema



Laryngeal Edema



Cerebral Edema



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