

# Pathology lab

28-12-2022



## Hyperemia

vasodilatation of arterial



## Congestion

venous obstruction accumulation of  
deoxygenatd blood ب تكون localized  
thrombus او generalized heart failure  
بسبب

## LUNG CONGESTION

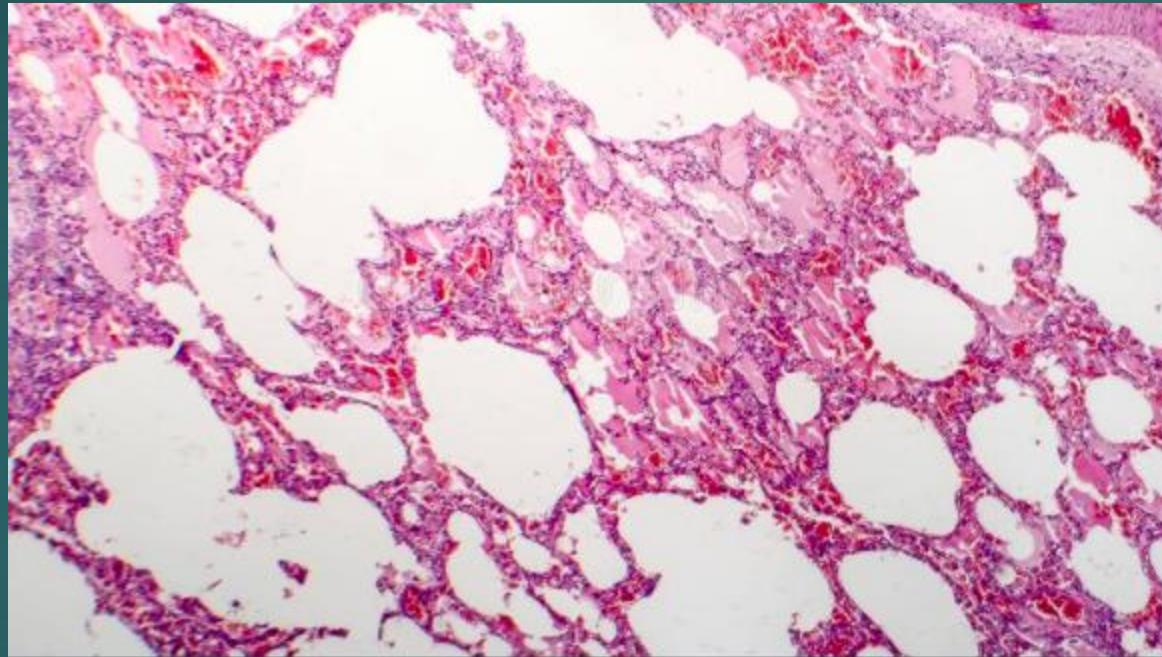
Cut surfaces of hyperemic or congested tissues feel wet and typically ooze blood

blood عشان blood  
vessels rupture و بتكون wet

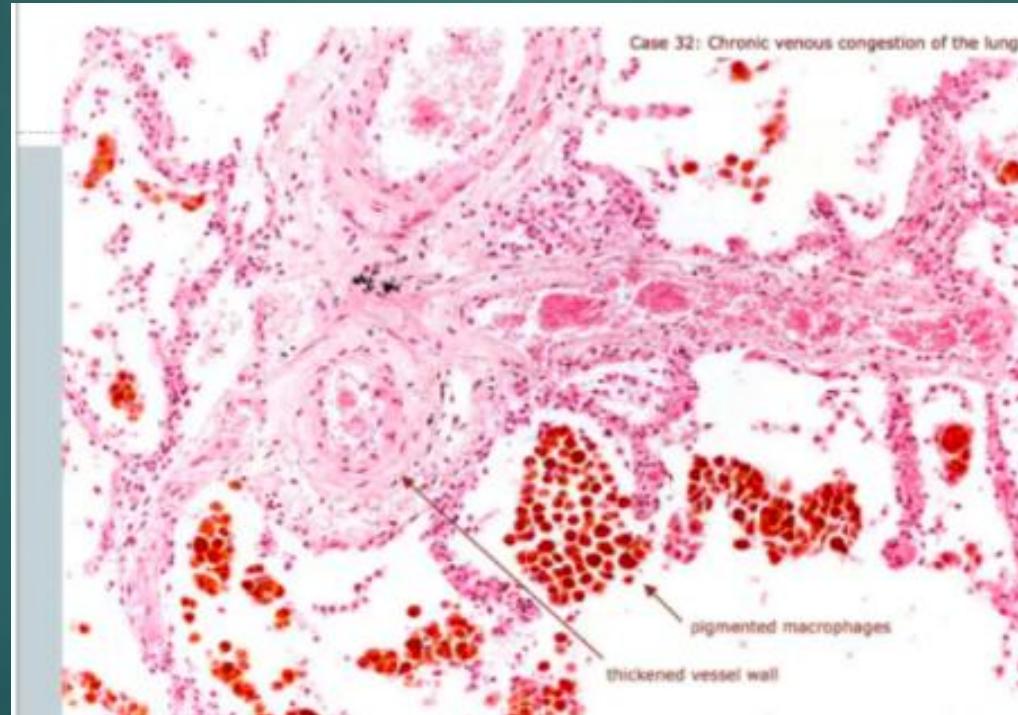


acute pulmonary congestion is marked by blood-engorged alveolar capillaries and variable degrees of alveolar septal edema and intraalveolar hemorrhage

ال الطبيعي لازم تكون  
فاضية بس في  
hemorrhage  
هون

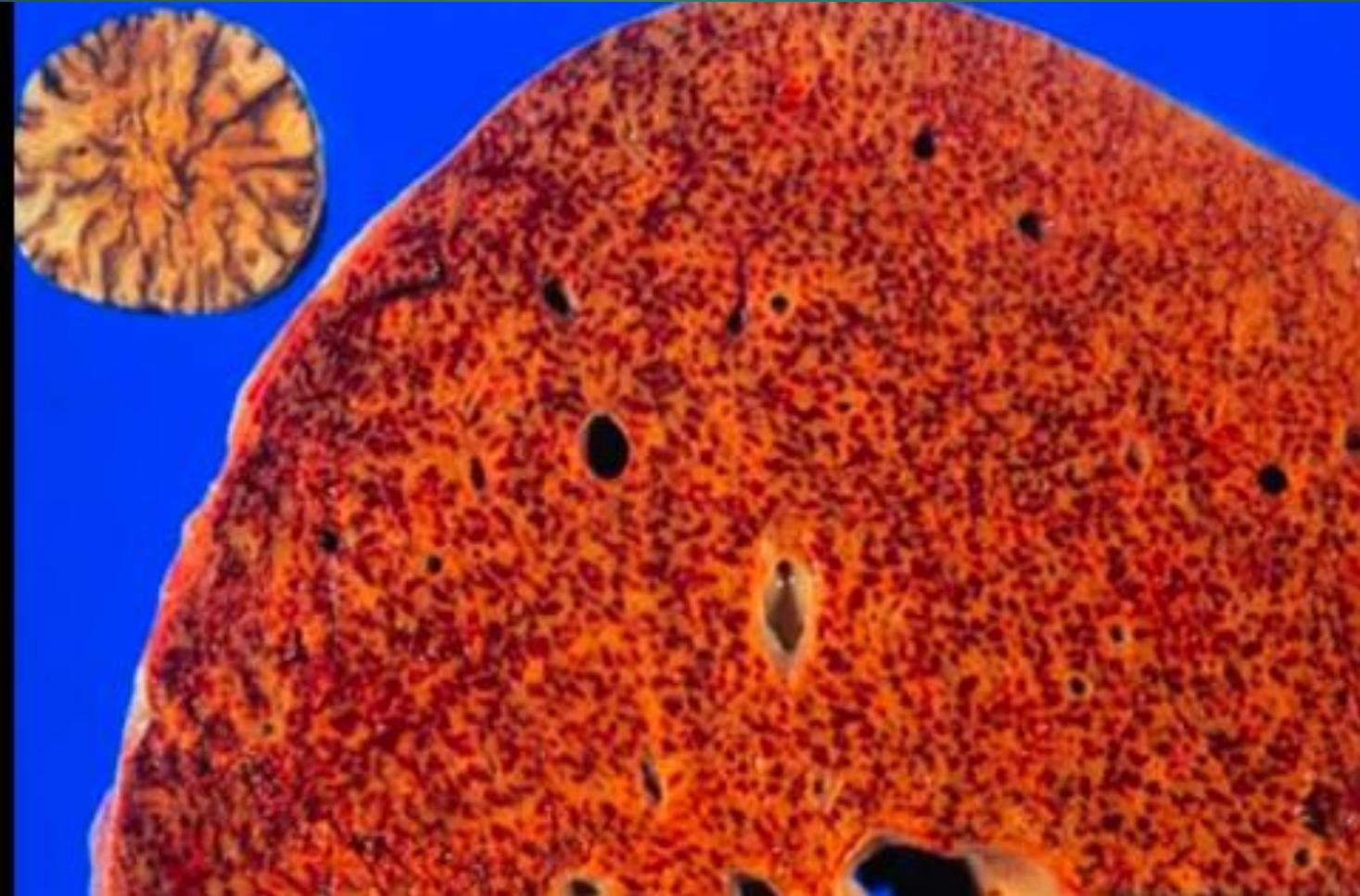


chronic pulmonary congestion, the septa become thickened and fibrotic, and the alveolar spaces contain numerous macrophages laden with hemosiderin (“heart failure cells”) derived from phagocytosed red cells.



عشنان  
بصیر  
thicken  
و ال  
macrophages  
engulf red blood  
cells  
بكون في  
hemosiderin

# HEPATIC CONGESTION

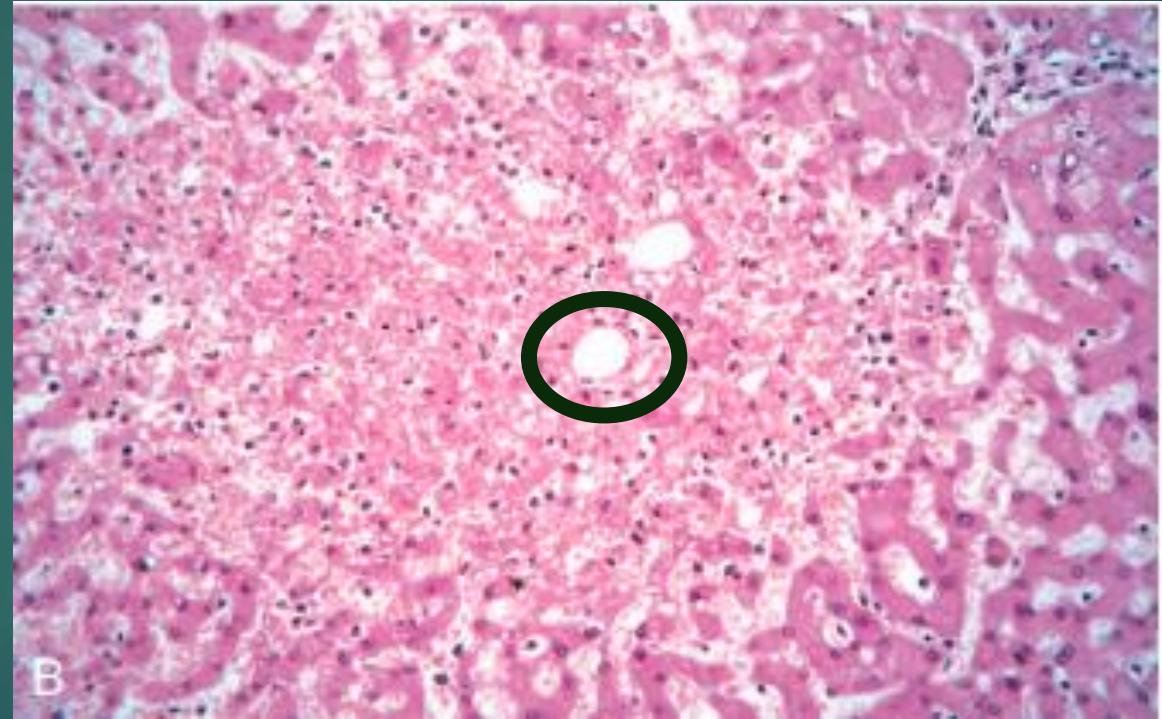


المنطقة عند الـ  
vein بصير  
necrosis ب تكون central  
مش peripheral  
ف بصير عنـا شـكل nutmeg

centrilobular hepatocyte necrosis.

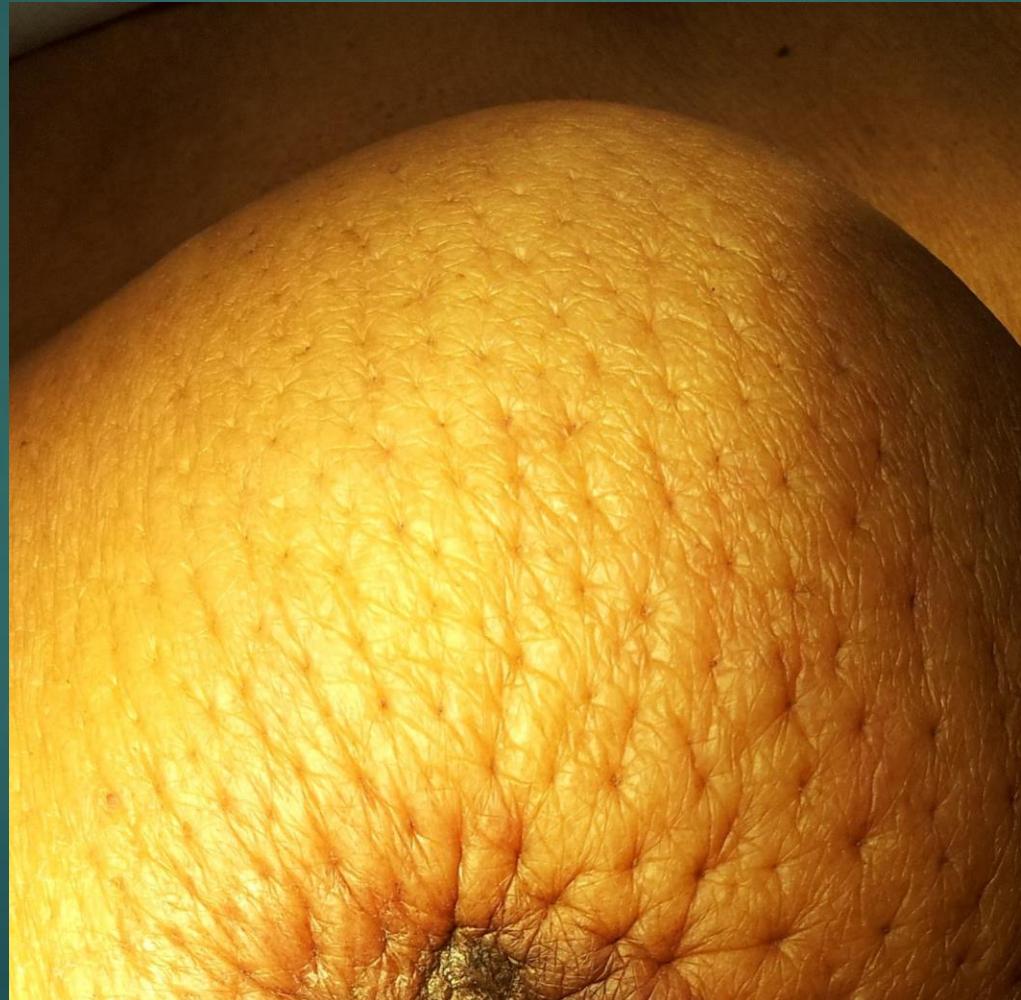
Hemorrhage.

hemosiderin-laden macrophages



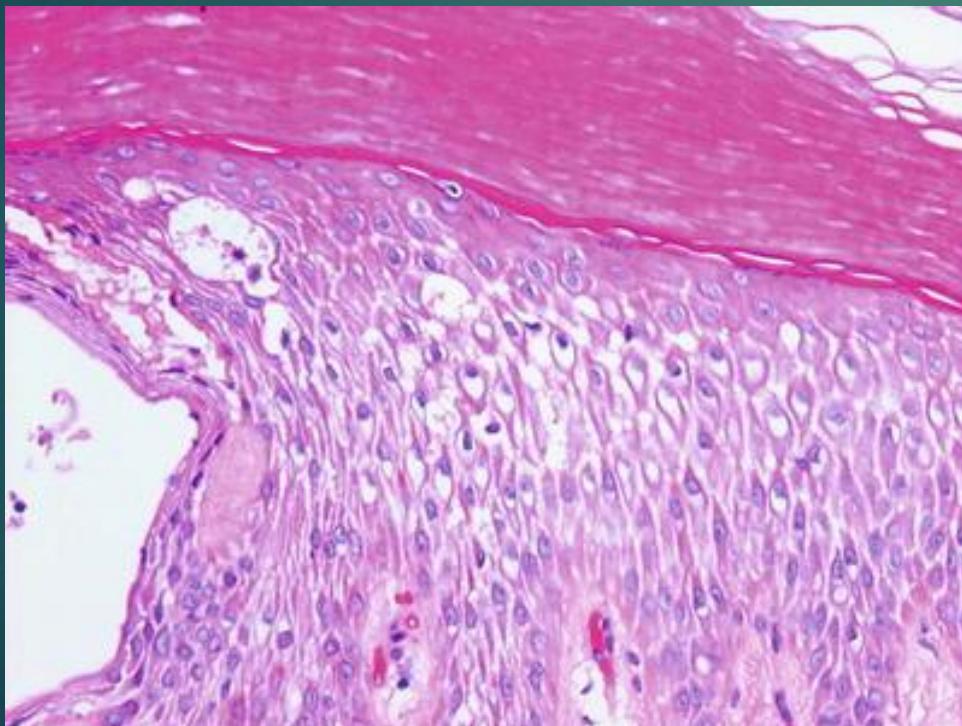
معروفة بتكون central vein عشان بتكون dilated عشان ما في حوليه muscle

peau d'orange caused by Infiltration and obstruction  
of superficial lymphatics by breast cancer



edema  
الْهُمْسَةُ  
lymph  
obstruction

- ▶ **microscopic examination:**
- ▶ 1.skin : clearing and separation of the extracellular matrix
- ▶ Subcutaneous edema can be diffuse but usually accumulates preferentially in the legs with standing and the sacrum with recumbency, a relationship termed dependent edema.
- ▶ Finger pressure over edematous subcutaneous tissue displaces the interstitial fluid, leaving a finger-shaped depression; this appearance is **called pitting edema**



لما تدخل  
الاصبع فيها  
و منسيها  
عشن بتقصير  
زي السفنجية



Edema is easily recognized on gross inspection;

unilateral edema

زی local بکون اشی

tumor

bilateral systemic

زی heart failure



- ▶ Edema resulting from renal dysfunction or nephrotic syndrome often manifests first in loose connective tissues (e.g., the eyelids, causing periorbital edema).

ب هاي المنطة لأنها  
soft  
و كثير بتصير  
بالأطفال  
السبب renal



## Petechiae :

are minute (1 to 2 mm in diameter) hemorrhages into skin, mucous membranes, or serosal surfaces .

subcutaneous  
الجسم صغير



# Purpura

are slightly larger (3 to 5 mm) hemorrhages.

برضو  
subcutaneous  
بس اکبر



## **Ecchymoses:**

are larger (1 to 2 cm) subcutaneous hematomas (also called bruises).



Mural thrombi:

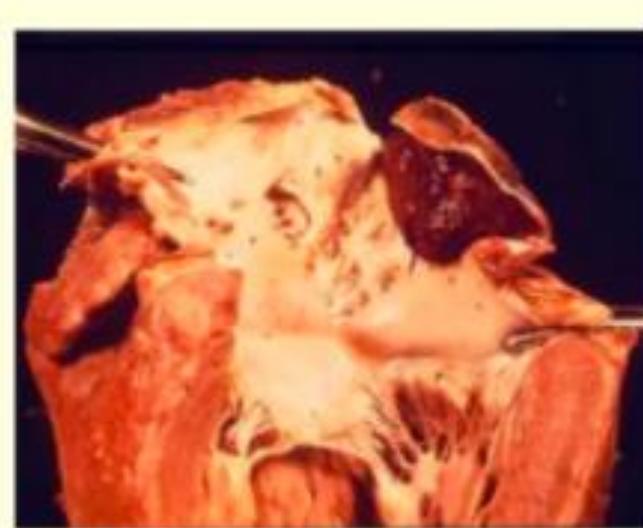
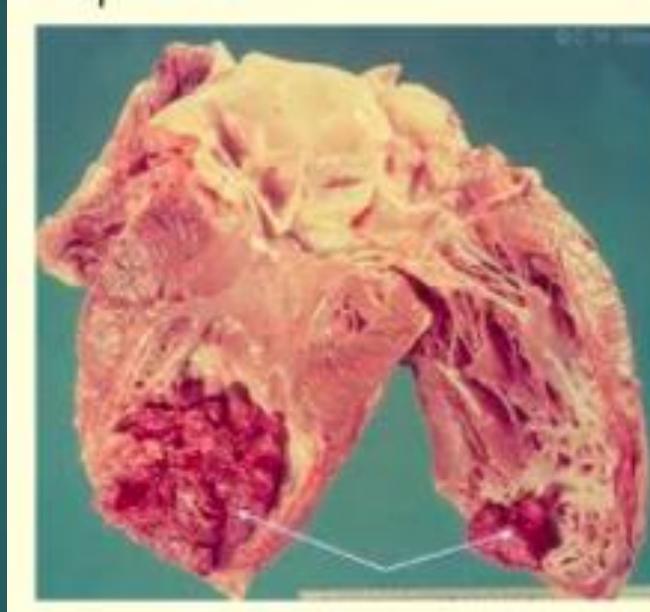
Thrombi occurring in heart chambers or in the aortic lumen

بال

chamber  
or aorta

بكون

risk factor  
لـ embolism



# Venous thrombi (phlebothrombosis):

vein

عشان على طول

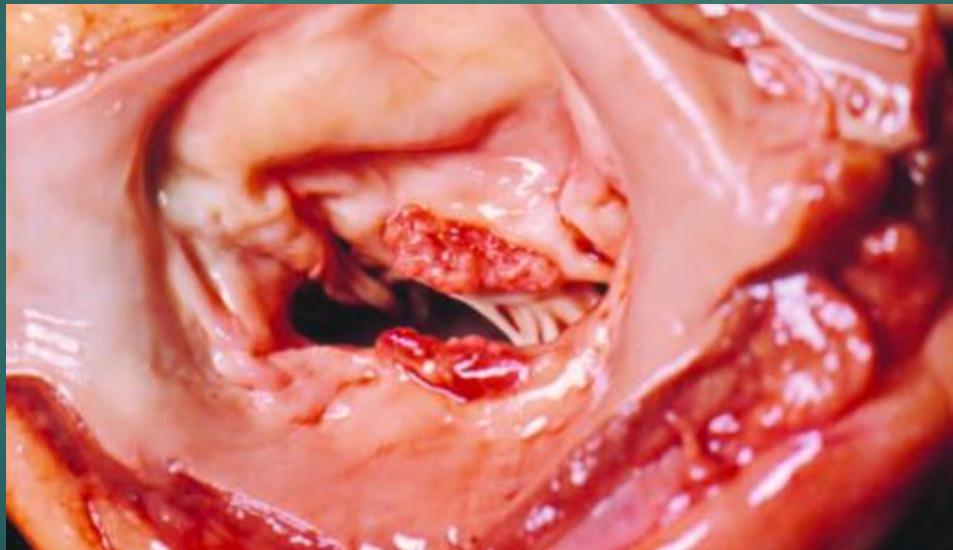
vien

artery مش



# Cardiac Vegetations

بالي بال  
risk factor تكون



# lines of Zahn

thrombus  
red is rbs  
pale is platelet



# DIC

disseminated  
intracellular  
coagulation

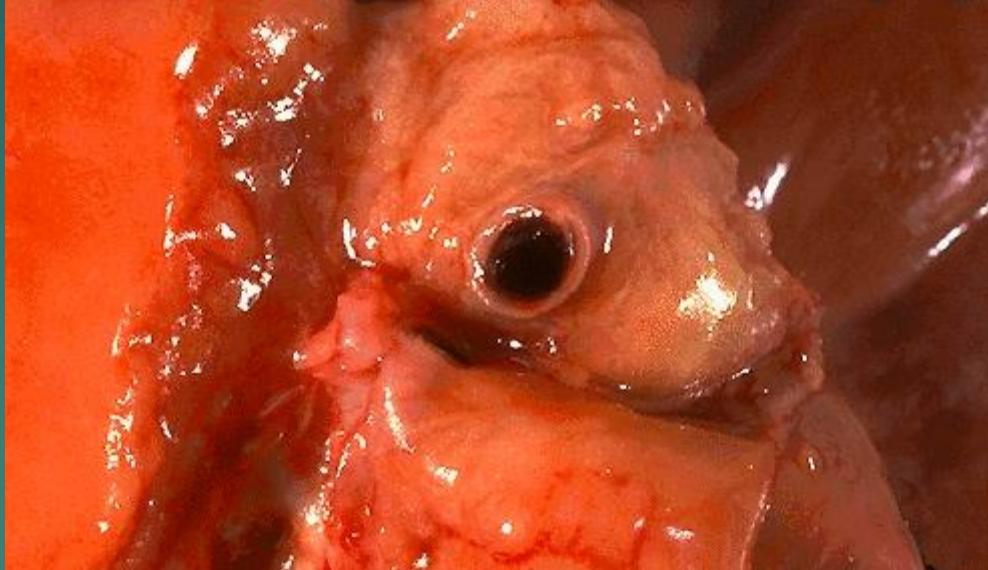
thrombocytopenia  
بكون



clot

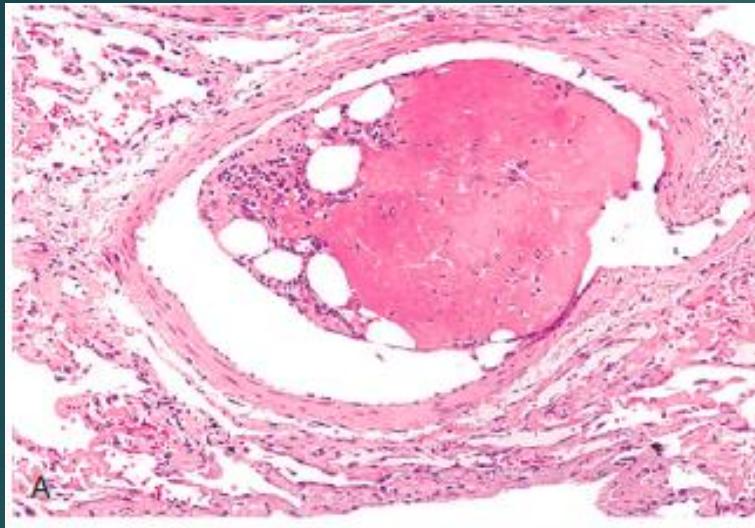
بال

artery



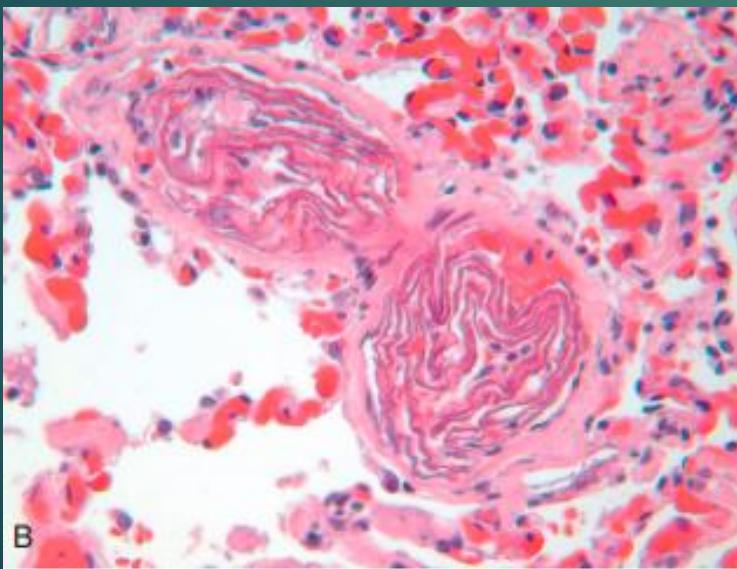
**thrombosis** of a coronary artery

Massive thrombosis (arrows) from distal  
portion of left main coronary artery



fracture بسبب  
femur

Bone marrow embolus



lung بتروح

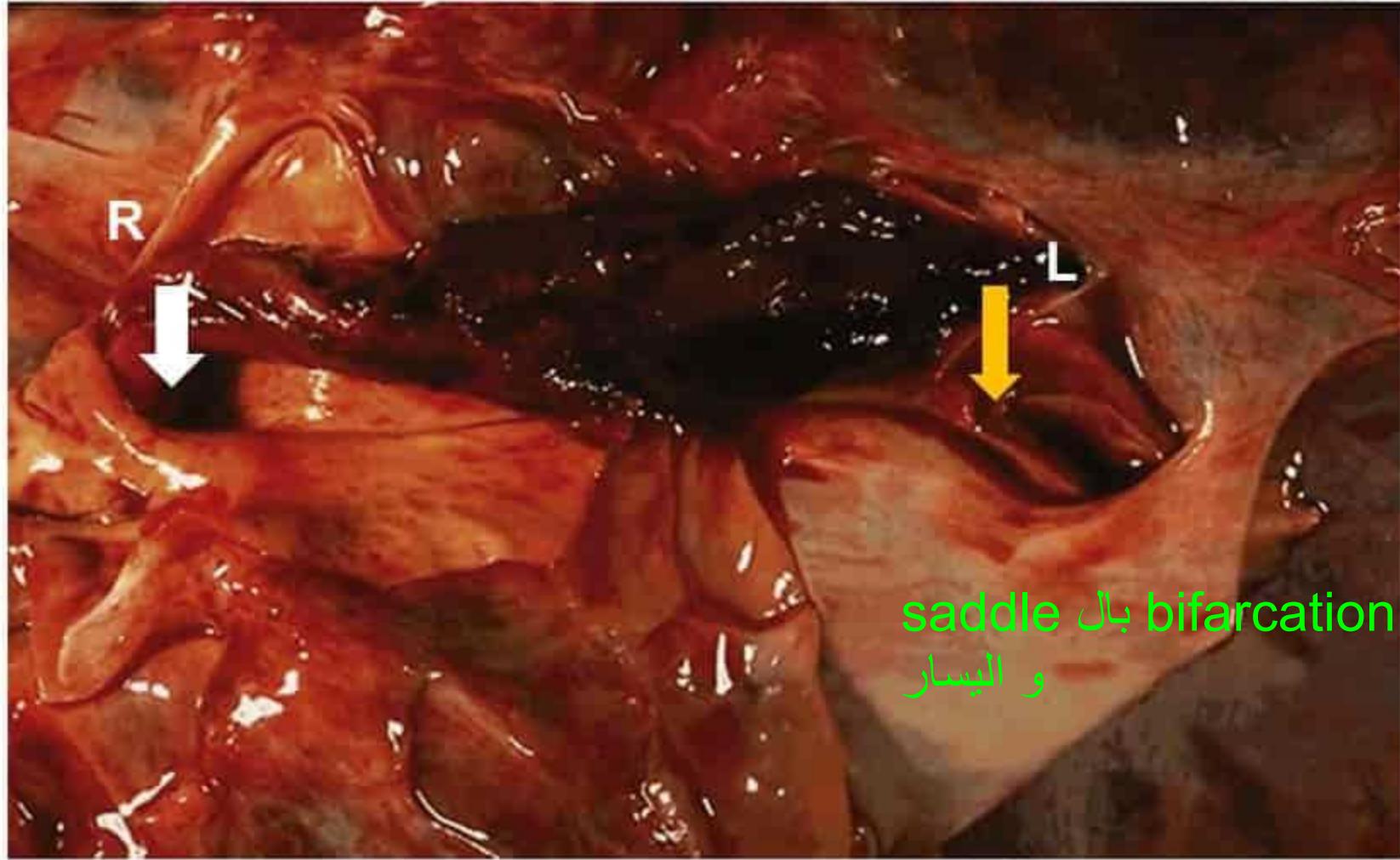
Amniotic fluid emboli

# DVT

4 signs hot red tender swell

deep vein  
thrombosis



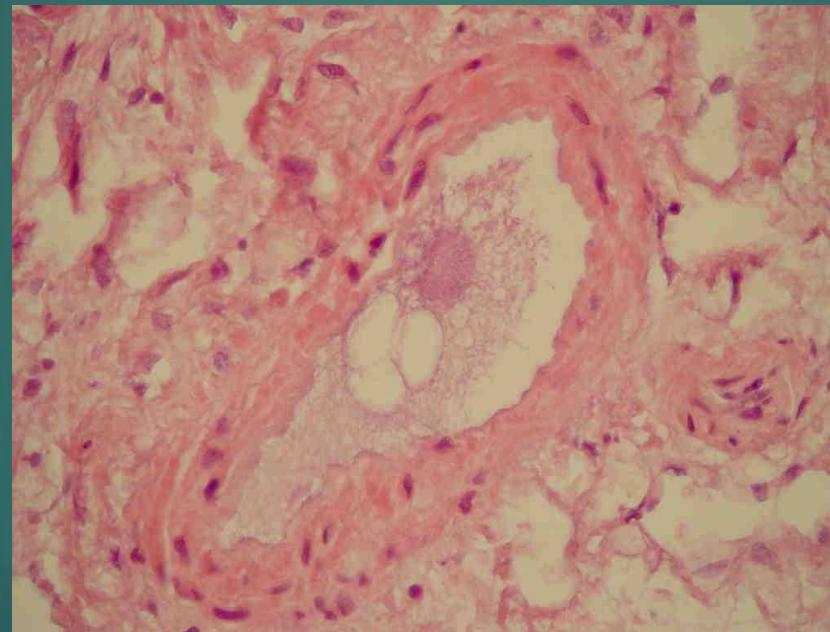


بين اليمين **bifarcation** بال  
و اليسار

## Pulmonary embolism, gross;

A Saddle embolus that bridges the pulmonary artery trunk as it divides into right and left main pulmonary arteries.

# Fat Embolism



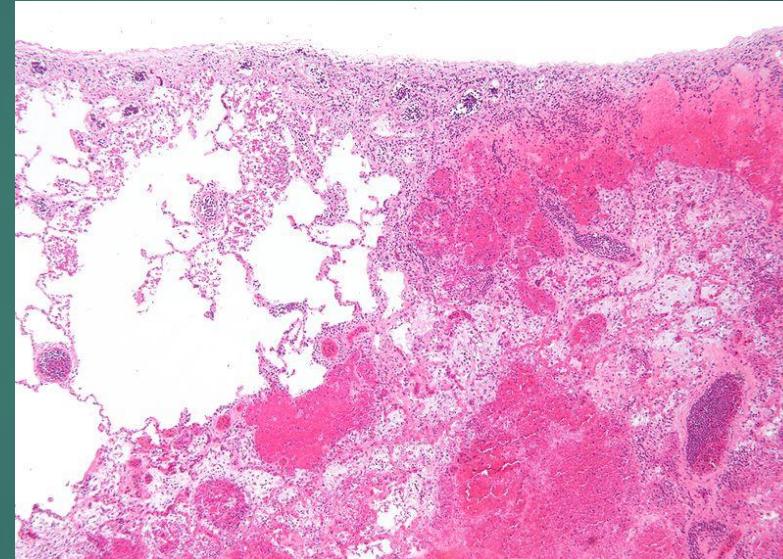
ما بنشف بال  
microscope

femur fracture  
بتكون

# Red infarction



classic wedge-shaped infarct



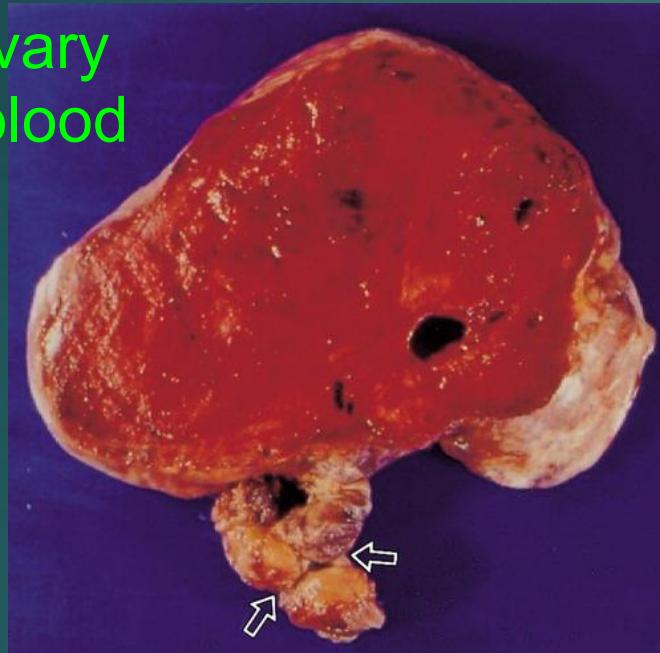
- 1.Necrosis of alveolar walls - loss of nuclei.
- 2.Alveolar hemorrhage.

red عشان rbc

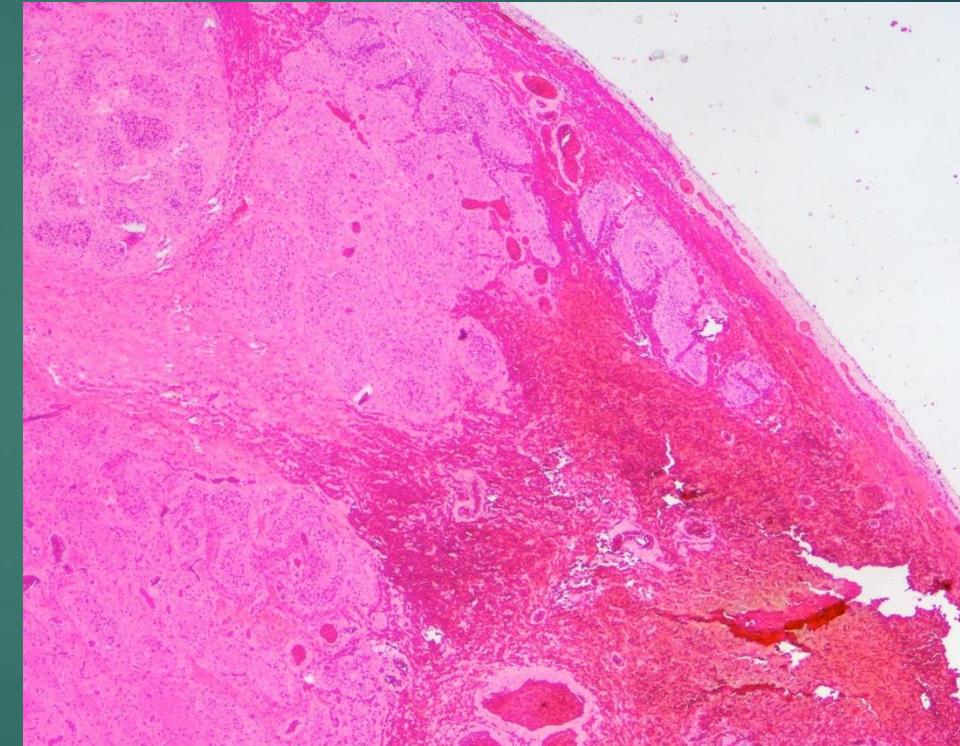
بتكون wedge  
بالmicroscpe  
necrosis and  
hemorrhage

# Red infarction

بسبب ovarian  
torsion  
البلف ovary  
القطع blood  
supply



dark brown, ovarian mass with a  
twisted, thickened left fallopian tube  
(arrows).



Hemorrhage and necrosis

# white infarction

بتصير بال

solid

spleen

kidney liver

