



Tikrit University  
College of Veterinary Medicine

# Hemodynamic disorders

Subject name: Practical Pathology

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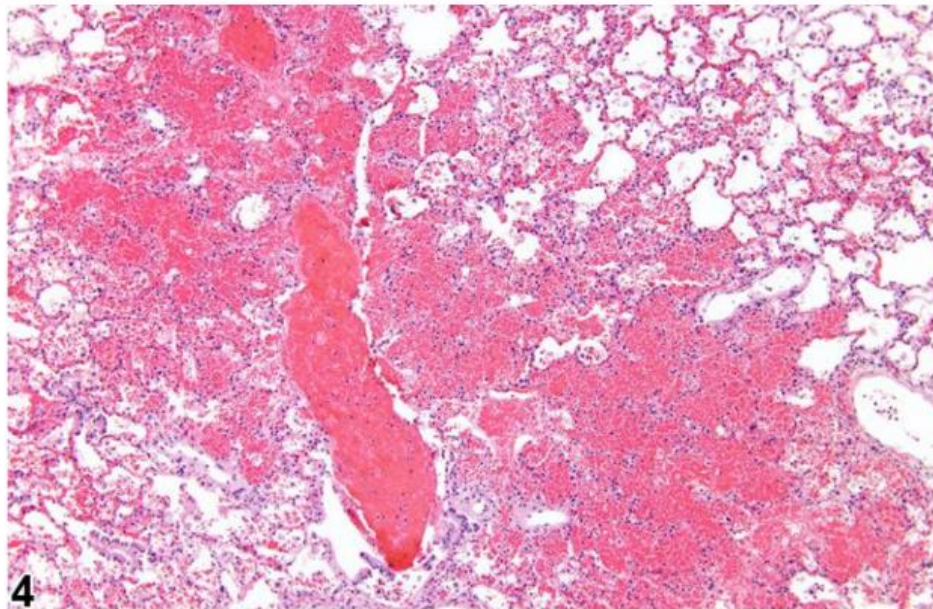
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Lecturers link

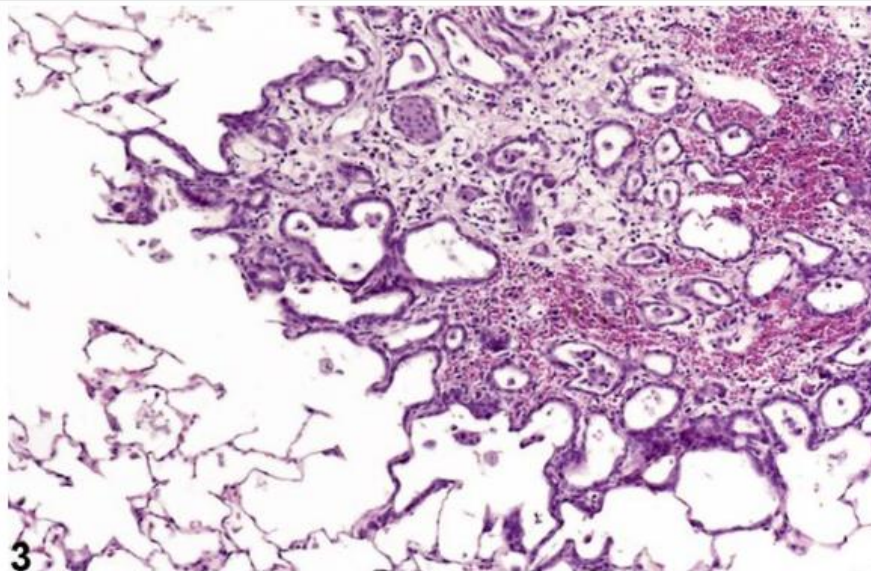
**Organ:** lung

**Lesion:** The histopathological examination of shows, hemorrhage is recognized by the presence of erythrocytes outside blood vessels, and the erythrocytes fill many of the alveoli. The erythrocytes are intact and stain sharply.

**Diagnosis:** Hemorrhage of lung

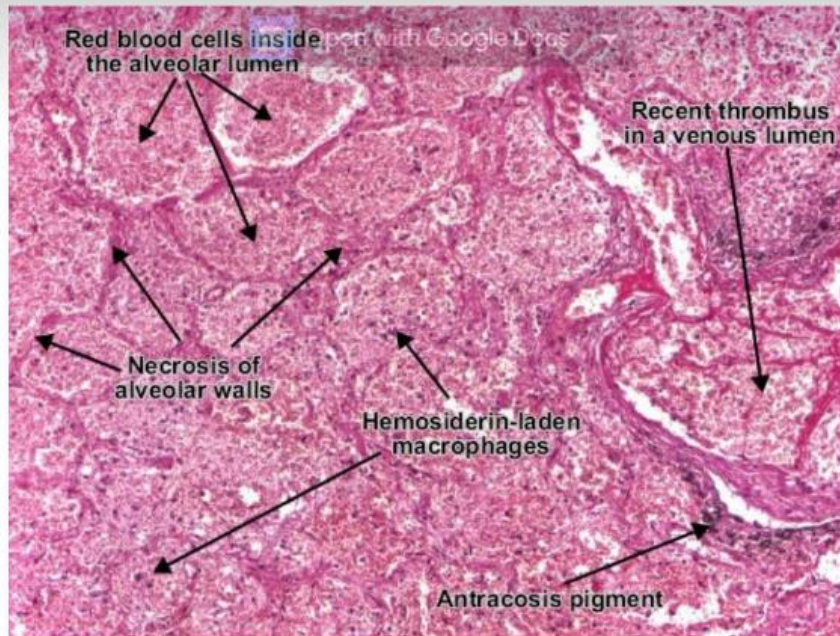


Lung - Hemorrhage. The extravasated erythrocytes fill many of the alveoli.

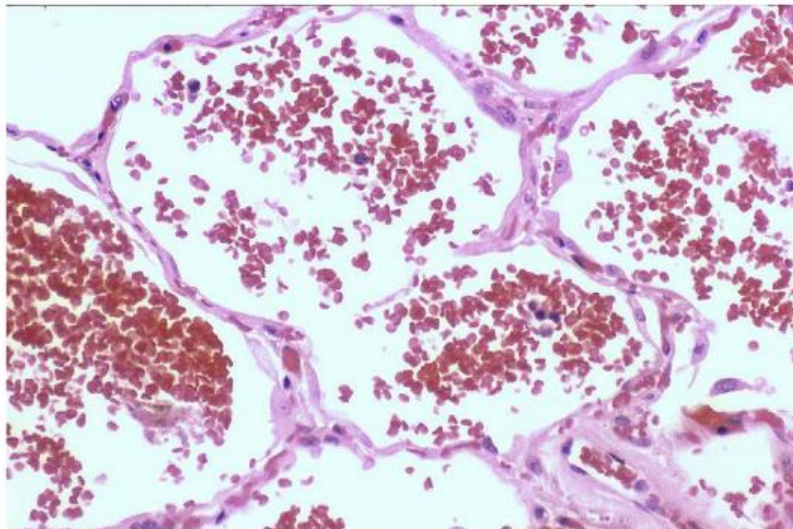


Lung - Hemorrhage. The hemorrhage is associated with chronic inflammation and fibrosis.





Pulmonary (hemorrhagic)

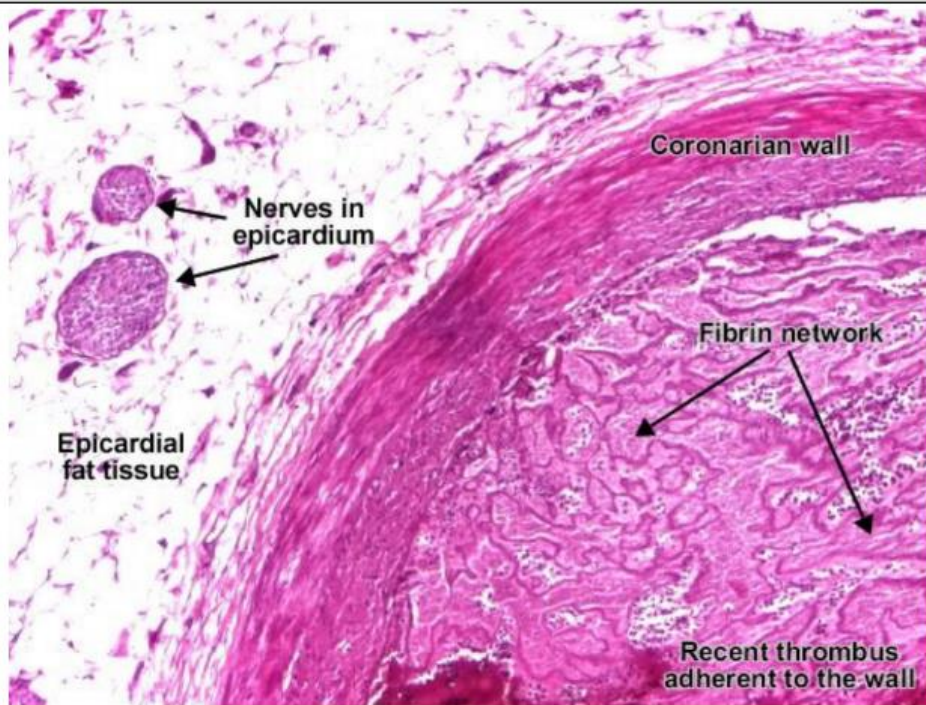


Page intra-alveolar hemorrhage +

**Organ:** blood vessels

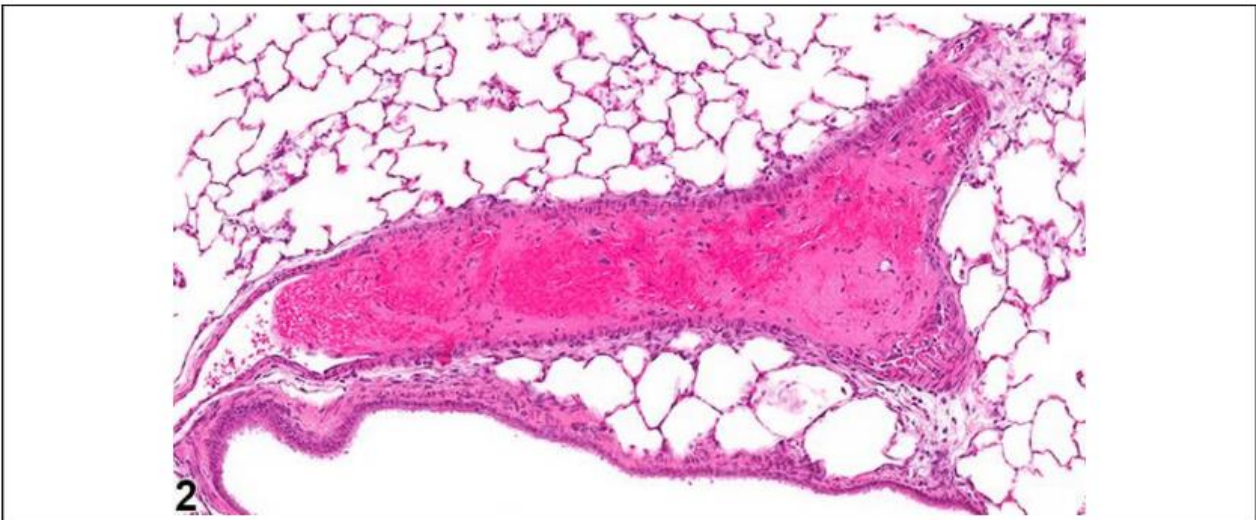
**Lesion:** The histopathological examination of shows, the lumen of blood vessels is completely obstructed by a recent thrombus. The white color in the thrombus entirely of platelets, and red color in the thrombus is composed of platelets, fibrin, erythrocytes, and leukocytes (The lines of Zahn). The thrombus is adherent to the wall of blood vessels.

**Diagnosis:** Thrombus of blood vessels

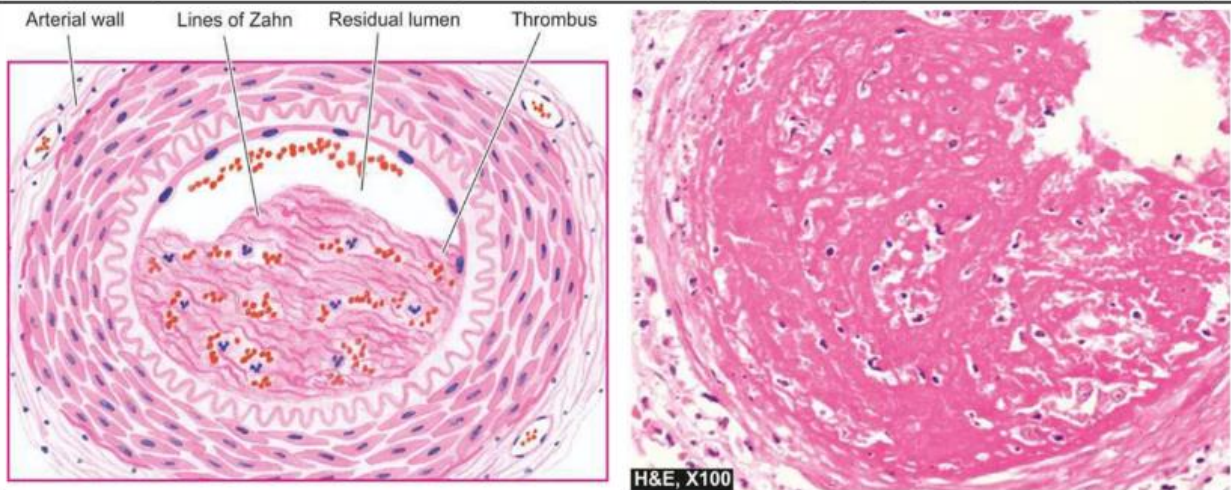


the lumen of blood vessels is completely obstructed by a recent thrombus - fibrin network (pink) containing red blood cells, platelets, and leukocytes. The thrombus is adherent to the wall of blood vessels.





Lung, Artery . A thrombus containing a large number of erythrocytes is present in a pulmonary artery.

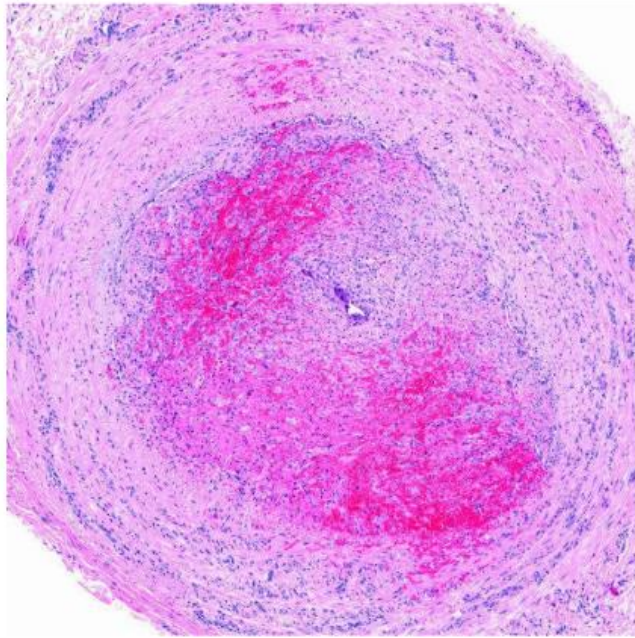


Thrombus in an artery. The thrombus is adherent to the arterial wall and is seen occluding most of the lumen. It shows lines of Zahn composed of granular-looking platelets and fibrin meshwork with entangled red cells and leucocytes.

**Organ:** blood vessels

**Lesion:** The histopathological examination of shows, the lumen of vessels is pale stained of myxoid extensively vacuolated connective tissue (CT) which rich in CT mucin (blue color). The cells in CT are mixture of elongated fibroblasts and round macrophage. The fibroblasts and capillaries proliferate and invade the base of the thrombus. The intravascular mass is organized and converted into a vascularized connective tissue. The capillaries anastomose to provide new channels that cross the thrombus known as re-canalization of the thrombus, and filled with RBC. The intima is thick and fibrous with chronic inflammatory cells. The media layer is more eosinophilic due to musculo-elastic laminae.

**Diagnosis:** Organized thrombus



Organizing blood vessel thrombus

