Organ: Lung
Stain: H \& E
Lesion: Active hyperemia

## Microscopical findings:

1. The peribronchiolar and interalveolar blood capillaries are dilated and filled with blood.
2. The capillaries which normally contain one raw of erythrocytes are dilated and contain several rows. (10-12)
3. The pulmonary alveoli are clear and free from any fluid
4. Leukocytic infiltration in the interlaveolar septa and capillaries were also seen.


Organ: Lung
Stain: H \& E
Lesion: Passive hyperemia

Microscopical findings:

1. The venules and blood capillaries of the pulmonary tissue are dilated and filled with blood.
2. The alveoli contain pale eosinophilic or purplish fluid (transudate).
3. Absence of inflammatory cells.


Organ: Liver
Stain: H \& E
Lesion: Chronic venous congestion (nut-meg-liver)

## Microscopical findings:

1. The portal veins and central veins are congested, dilated and filled with blood.
2. The hepatic sinusoids are severly dilated and filled with blood and hemosiderin pigments taken amorphous yellow coloration.
3. The hepatic cells particularly around the central veins suffered from pressure atrophy and may be replaced by erythrocytes.
4. Severe thickening of the central veins.
5. Fatty change and vacuolar degeneration may be noticed in the cytoplasm of hepatocytes.


Organ: Lung
Stain: H \& E
Lesion: Chronic venous congestion (brown induration of the lung)

## Microscopical findings:

1. The peribronchiolar and interalveolar blood capillaries are dilated and filled with blood.
2. The pulmonary alveoli are filled with eosinophilic granular material mixed with dark brown hemosiderin pigments .
3. Severe thickening of the alveolar wall resulted from fibrosis of the pulmonary tissue.
4. Heavy hemosiderosis scattered all over the lung tissue.


