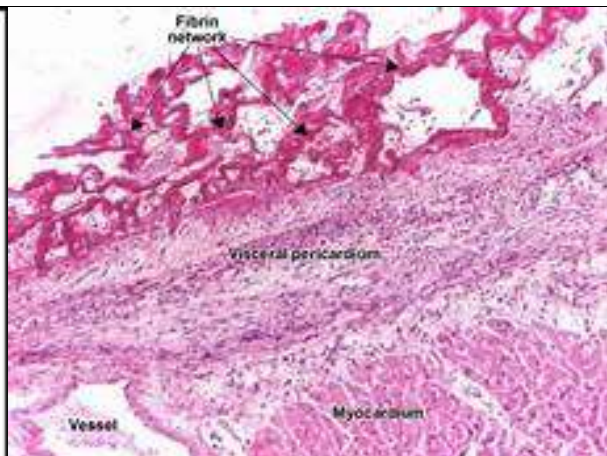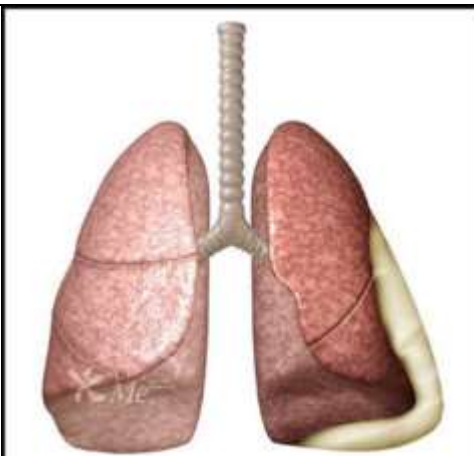**N.B. 1**

- The Bilharzia ova reach the lungs **as emboli and become impacted in the arterioles** which accompany the respiratory bronchioles producing a **specific acute necrotizing arteriolitis.**
- Following necrosis, the ovum escapes through the vessel wall and a **parenchymatous tubercle** forms near the respiratory bronchiole.
- In cases with a moderate infection, vascular lesions as well as parenchymatous tubercles are present and embolic ova are frequent.
- Healing of the acute vascular lesions leads to **obliterative arteriolitis**, often followed by **canalization of the occluding tissue.**
- The new-formed capillaries hypertrophy, producing a **structure characteristic of pulmonary Bilharziasis called angiomatoid formation (anastomotic channels).**
- Massive and repeated infection of the lungs with Bilharzia is followed by widespread arterial changes, **hypertrophy of the right ventricle** and the development of the **cardio-pulmonary features of Ayerza's disease** with death from **congestive heart failure,**
- **The visceral pleura** may show patches of thin pale white opacities denoting **areas of fibrosis from the local ischaemia.**
- There may be few minute nodules which may be slightly projecting.
- The same types of nodules are seen when cutting the lung.
- They occur singly or in groups in any lobe.
- Recent nodules are yellowish **(fresh bilharziomata),** and old nodules are whitish dense scar tissue.
- Pressure on the sides of the small bronchi, expresses out clear mucus.
- There occurs dilatation of the elastic arteries to the extent of aneurysm formation with destruction of the media.
- The muscular arteries show hypertrophy of the media and fibrosis.
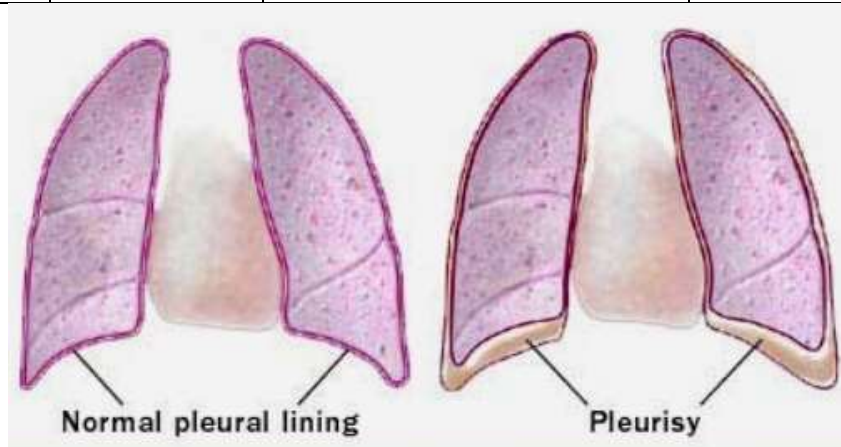- There appears atheroma of the pulmonary arteries.

N.B. 2

Parasites of the Lung:

    1. Bilharzia (Schistosoma) ova /worms.
    2. Amoebic abscess.
    3. Hydatid cyst.
    4. Paragonimus westermanii (human lung-fluke)
    5. Ascaris larvae and Strongyloides.
    6. Ancylostoma larvae.
    7. Micro-Filaria.

Pleurisy (Serofibrinous)				
Lung	*Is small in size*			
Pleura	• Dull • Dirty pale • Pinkish-whitish-yellow			
	Covered by:	• An inflammatory exudate • A network of fibrin		

Normal pleural lining   Pleurisy

N.B.:
Pleurisy may be classified into:
1. Fibrinous (dry).
2. Serofibrinous (with effusion).
3. Purulent (empyema).

The so-called primary form of pleurisy may actually be **due to**
• **Tuberculosis or**
• **Rheumatic fever.**

The secondary form of pleurisy may be due to causes in the lung (as
• Tuberculosis,
• Pneumonia (lobar) and
• Carcinoma or to
• Causes in some other organs

N.B.:
A condition which <u>clinically produces physical signs simulating pleural effusion</u> is
1. **"Hydrothorax"** i.e. a non-inflammatory transudation of clear fluid) into the pleural cavity, and, may be due to cardiac or renal causes or obstruction to the great veins.
2. **Pneumothorax:** Is air (or gas) in the pleural cavity → collapse of the corresponding lung→ displacement of the mediastinum to the in-affected side.
   This may be catty rupture of emphysematous bulla