

ACUTE INFLAMMATION

- 1. FIBRINOUS PERICARDITIS (*PERICARDITIS FIBRINOSA*)
- 2. BRONCHOPNEUMONIA
- 3. ACUTE, NECROTIZING APPENDICITIS WITH PERIAPPENDICITIS (*APPENDICITIS ACUTA ET ULCEROPHLEGMONOSA*)
- 4. LOBAR PNEUMONIA
- GROSS PREPARATION: LOBAR PNEUMONIA (WITH „HEPATIZATION”).

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Form of exudative inflammation: neutrophils in a meshwork of fibrin strands (amorphous pink material)

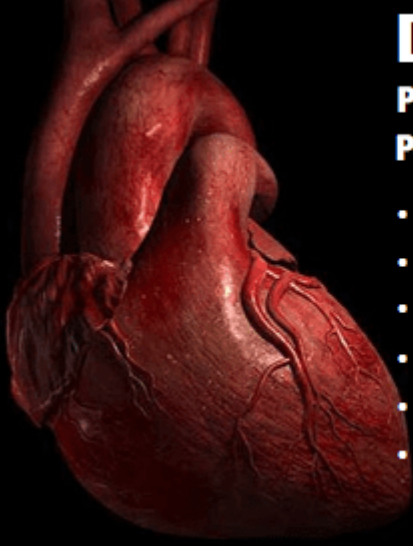


Morphologic Patterns of Acute Inflammation

1. SEROUS INFLAMMATION

2. FIBRINOUS INFLAMMATION

- ❑ A fibrinous exudate develops when:
 - ❑ Vascular leaks are large or
 - ❑ Local procoagulant stimulus (e.g., cancer cells)
- ❑ Fibrinogen will be converted to fibrin
- ❑ Occurs in inflammations involving the body cavities
- ❑ Histology of fibrin: Eosinophilic meshwork of threads or amorphous coagulum
- ❑ Presence of fibrin stimulate the fibroblasts and blood vessels resulting in scarring
- ❑ Scarring (*organization*) may result in functional impairment eg: cardiac encasement



Dressler Syndrome

Postmyocardial Infarction syndrome
Postpericardiotomy pericarditis

- **Occurs 2 - 10 weeks post myocardial infarction**
- **Persistent low-grade fever**
- **Chest pain (pleuritic)**
- **Pericarditis (friction rub on exam)**
- **Usually resolves spontaneously**
- **Colchicine, Steroids, NSAIDs (less often)**

Post-infarction syndrome (Dressler syndrome)

Uremia

Rheumatic fever

SLE

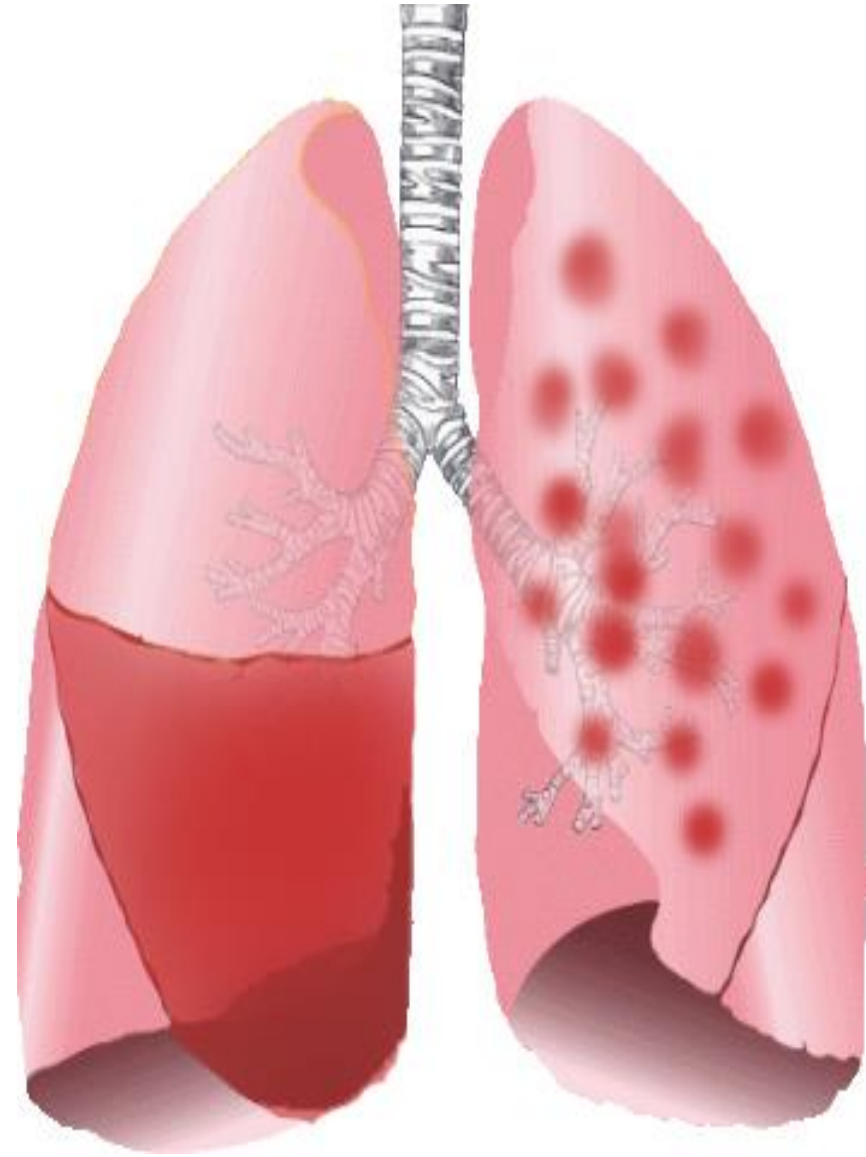
Trauma (including heart surgery)

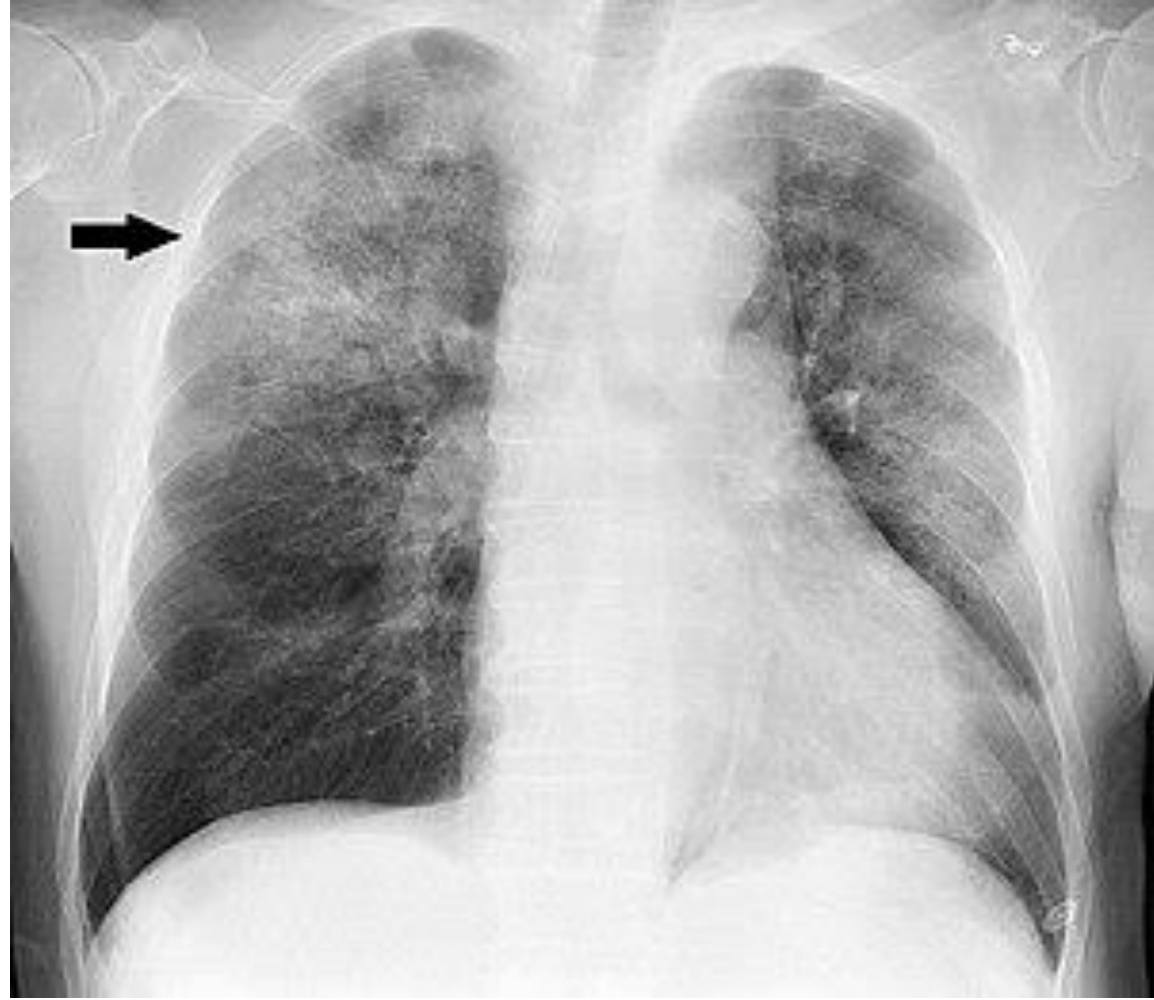


Lipofuchsin = „wear-and-tear” pigment, by-product of lipid peroxidation in lysosomes

- Lipofuchsin in cardiomyocytes
- Subepicardial adipose tissue
- Fibrin exudate
- Active hyperemia

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- Intraalveolar purulent exudate
- Neutrophils
- Pulmonary edema
- Fibrinous pleuritis
- Intra bronchiolar purulent exudate
- Anthracosis

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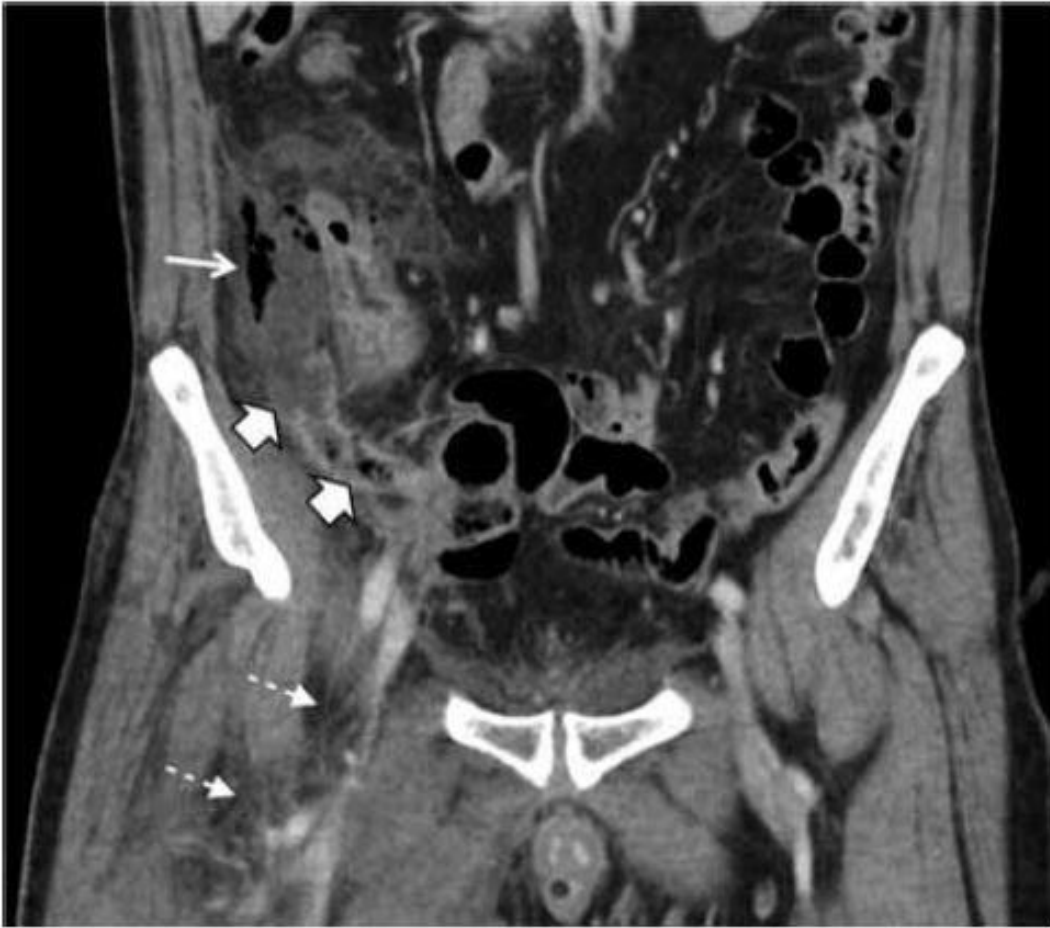
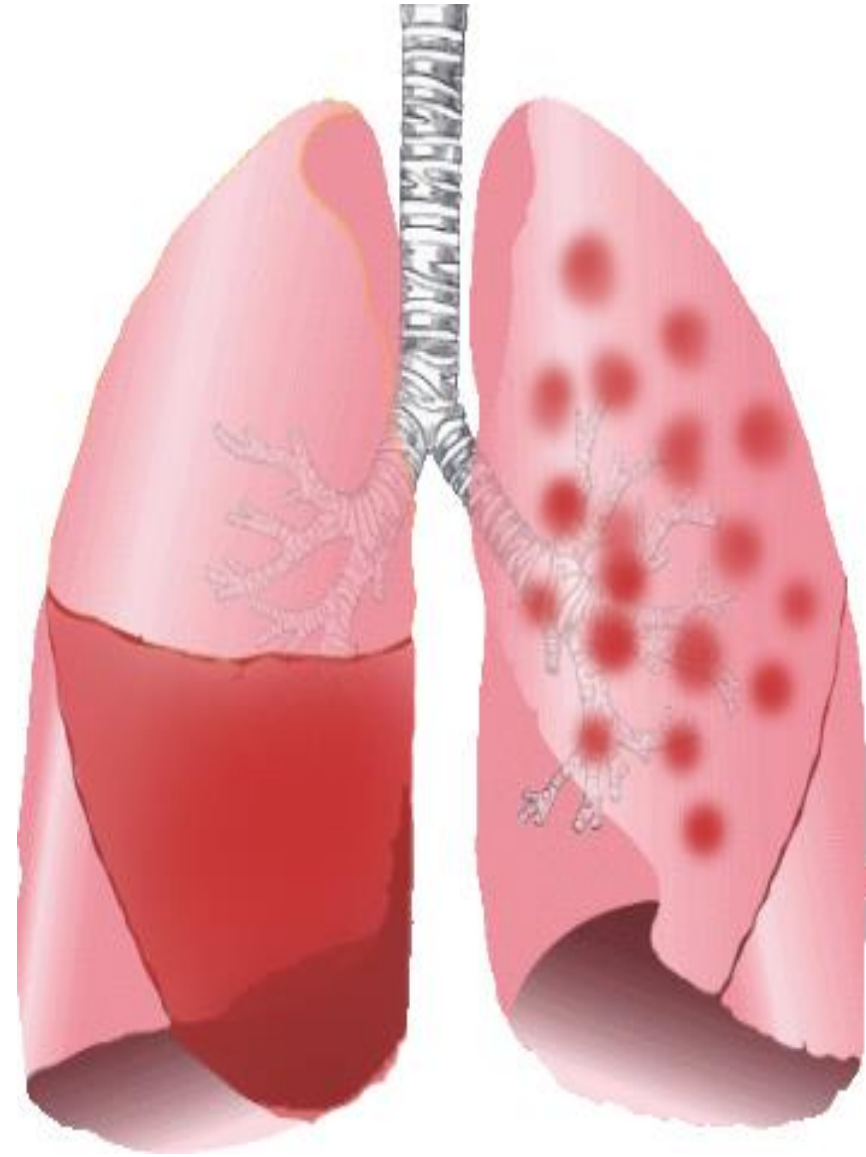


FIG 1. Coronal computed tomography image: dilated retrocaecal appendix with rupture at the tip (thick arrows). The appendiceal tip connected with a gas-containing abscess (thin arrow) posterolateral to the ascending colon. Abnormal fat stranding along the femoral neurovascular bundles (dashed arrows) is shown

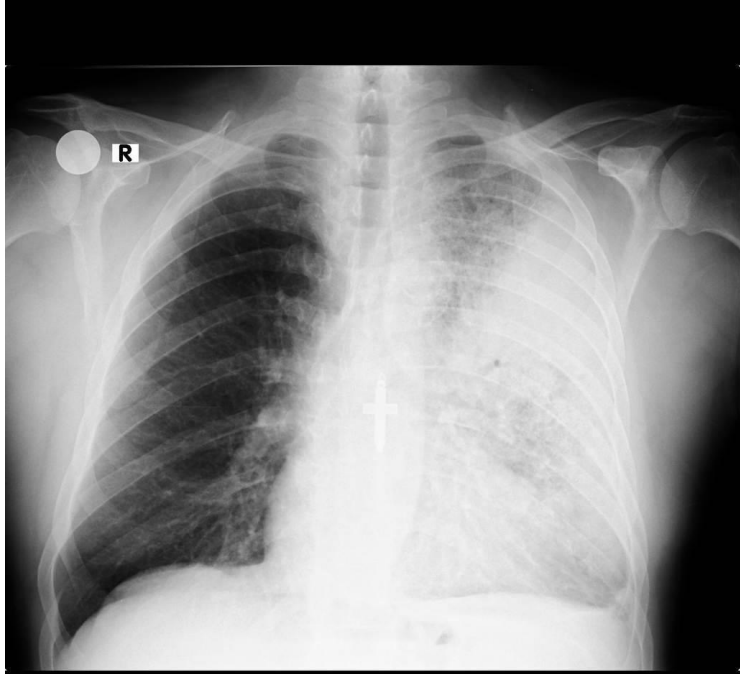


- Acute mucosal ulcer
- Fibrino-purulent exudate
- Acute inflammation (transmural, associated with necrosis)

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- 4. **LOBAR PNEUMONIA**
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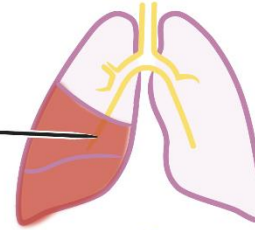
- Anthracosis
- Intralveolar fibrinous and neutrophilic exudate
- Fibrinous pleuritis



Histological Patterns

Lobar pneumonia

Inflammation continuous area

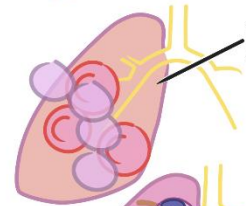


Lobe(s) or entire lung

4 Stages: Bacterial

CONGESTION (24 HRS)

Heavy, red, "baggy," from blood & bacteria in alveoli



Engorged vessels, edema

RED HEPATIZATION (DAYS 2-4)

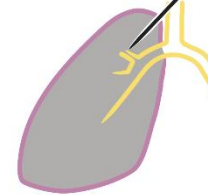
RBCs, Neutrophils, Fibrin



Dry, firm like liver

GRAY HEPATIZATION (DAYS 5-9)

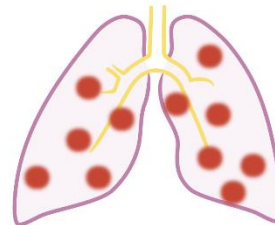
RESOLUTION



Lysed RBC, fibrinopurulent exudate

Bronchopneumonia

Infection starts in bronchi; Spreads as patchy, bilateral inflammation



	Lobar Pneumonia	Bronchopneumonia	Interstitial Pneumonia
Primary location of infection	Alveoli	Bronchi	Interstitium
CXR / CT pattern	- Dense consolidation - Air bronchograms	- Patchy opacities	- Diffuse hazy opacities - Septal thickening
Ultrasound pattern	- Consolidation (often extensive) - Dynamic air bronchograms	- Patchy B-lines - May have some consolidation	
Microbiology	- Mostly Streptococcus pneumoniae - Klebsiella pneumoniae - Legionella	- <i>Wide</i> variety of bacteria (including Mycoplasma, Chlamydia, Staph, Pseudomonas)	- Viruses - PJP - Mycoplasma