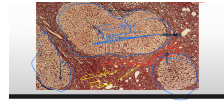


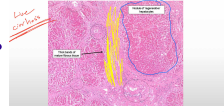
Stains

* **Hemosiderin** → 1 → **Chronic Lung Congestive (Heart failure cells)**
 → 2 → **Breakdown of RBCs and release of the iron in heme.**

* **H&E (elastin)** → **Organization of thrombus**



* **Reticulin Stain** → **Liver cirrhosis (Regeneration + fibrosis)** →



* **Trichrome stain** → 1 → **Granulation tissue (Mature scar) → blue → Type 1 Collagen**
 → 2 → **Atrophy of skeletal muscle → blue**

* **Congo red stain** → **Amyloid (in rheumatoid arthritis / Multiple Myeloma)**

* **Sudan 4** → **Intracellular accumulation of lipids**
 Oil ⊕ Red ⊖

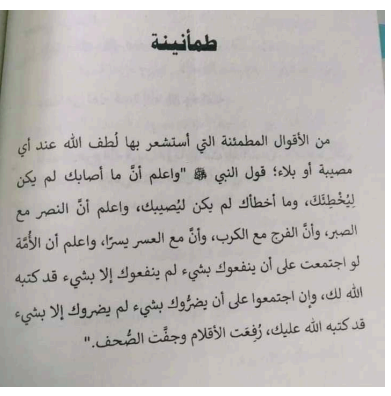
* **PAS stain** → **Intracellular accumulation of Glycogen**

* **Prussian blue (C Perl's stain)** → **Iron stain**

* **Anthracotic pigment** → **Come from carbonaceous material (Carbon pigment)**

* **Lipofusion** → **Seen in liver or heart (Brown atrophy) → Wear and tear**

* **Melanine** → **2ry Melanoma (Lymph node metastasis) (Black)**



سعيك للمذاكرة ثواب،
 خوفك على وقتك ثواب،
 ترتيبك لعملك ثواب،
 إحساسك بالقلق من الامتحان ثواب،
 سعيك تفرّح أهلك ثواب،
 محاولة تعويض وقتك بالضايغ ثواب،
 الكلمة اللي بتحبطك وتستحملها وتكمل ثواب،
 واحنا شو غايتنا غير الأجر والثواب والجنة؟ ❤️

أفهم ان كل عملك في طريق العلم خير يثيبك عليه الله فسلم أمرك الله ❤️

Appearance

Notes
 * Brain Atrophy = Dementia
 * leiomyomata is a benign tumor but is encapsulated

→ Autosomal dominant:
 1. FAP
 2. Neurofibroma } benign
 → Autosomal recessive:
 * Squamous cell carcinoma } malignant
 in Xeroderma pigmentosum

- * Nutmeg liver → Liver congestive
- * Peau orange → Breast cancer (edema)
- * Chicken fat → Post mortem clot
- * Saddle embolus → Pulmonary thromboembolism at bifurcation
- * Proud flesh → Exuberant granulation
- * Rolex formation ^{RBCs} → Margination of leukocyte in dilated vessel
- * Bread & Butter → Chronic fibrinous pericarditis
- * Mushroom like membrane → Pseudomembranous inflammation (Clostridium Difficile infection)
- * Cheesy like → Caseous necrosis (In lung) (Caused by TB)
- * Chalky white → Fat necrosis (Saponification) شبه الكباشيرت
- * Wear & Tear → Accumulation of lipochrome with aging (in liver or heart)
- * Finger like frond → Squamous cells papilloma (Skin Wart) → HPV

من للظهور إذا فؤادك أعرض
 من للحياة إذا اقتعت بما مضى!
 لا زال في الأيام حليماً مزهراً
 لا يزهو الدرب سوى أن تترقى

سكان الواسع في جدران الواسع الخليم

Types of infarction

- Red infarction:** ^{نصفه في Hemorrhage}
 Occurs in venous occlusion (ovaries and testes)
 Occurs in loose tissues as: lung
 Occurs in tissues with dual blood supply (lung, liver, small intestine)
 Occurs in previously congested tissues
- White infarction:**
 Occurs in arterial occlusion
 Occurs in solid organs (kidneys, heart, spleen)
 Occurs in tissues with single blood supply

Type	Involved organs (examples)	Important notes
Coagulative necrosis	Solid organs (kidneys, spleen, heart)	The most common form
Liquefactive necrosis	Brain, abscess	-----
Caseous necrosis	Tuberculosis in lungs, granulomatous reaction	Associated with granuloma which composed of area of necrosis surrounded by inflammatory cells (macrophages, epithelioid cells, Langerhans' cells)
Fat (enzymatic) necrosis	Pancreas, trauma to breast or subcutaneous tissue	Associated with fat saponification (Ca ²⁺ deposition)
Fibrinoid necrosis	Kidneys in malignant hypertension or immune mediated vasculitis (polyarteritis nodosa)	Hyaline appearance surround the small blood vessels in kidneys
Gangrenous necrosis	Dry gangrene in diabetic foot, Wet gangrene in small intestine, gas gangrene	It is a coagulative necrosis with superimposed infection with saprophytic bacteria

Pattern	Features/causes	Examples
Serous inflammation	Exudation of <u>cell poor fluid</u> into spaces created by cell injury or into body cavities lined by the peritoneum, pleura, or pericardium. Can be caused by heart failure or protein losing nephropathy/Liver diseases	1. Pleural effusion 2. Pericardial effusion 3. Peritoneal effusion 4. Skin blisters
Fibrinous inflammation	• There is exudation of large amount of plasma proteins including fibrinogen with subsequent precipitation of masses of fibrin. • Histologically, fibrin appears as an eosinophilic meshwork of threads or sometimes as an amorphous coagulum • Organization of fibrin with fibrous tissue will produce bread and better appearance in the pericardium	1) Acute pericarditis 2) Uremic pericarditis
Suppurative inflammation	• This is characterized by production of large amount of pus (or purulent exudate). • Pus → an exudate consisting of neutrophils, the liquefied debris of necrotic cells, and edema fluid. • Caused by pyogenic bacteria (streptococcus and staphylococcus)	1) Skin pustule 2) Suppurative appendicitis
Pseudo-membranous inflammation	• Characterized by the formation of a membrane or more correctly a pseudo-membrane. • This pseudo-membrane is made up of precipitated fibrin, necrotic epithelium & inflammatory leukocytes.	1) Diphtheria of the larynx 2) Pseudo-membranous colitis (by clostridium difficile)
Ulcers	local defect, or excavation, of the surface of an organ or tissue that is produced by the sloughing (shedding) of inflamed necrotic tissue.	1) Aphthous ulcer 2) Gummatous ulcer of syphilis

دواتم