

W

GD-1

Handwritten notes: "Habit 11/1/19" and "K cell notes"

A Young man Of 40 years suffered with acute hypoxic attack and rushed to hospital emergency where with in no time he gets treatment and oxygen perfusion. He recovered and his laboratory diagnostic tests are of normal base line.

- A- What is the type of this injury?
- B- What are various cause of cell injury?
- C- What are morphological changes of reversible injury?

(These changes are appreciated by viewing this image.)



KEY:

- i. Reversible type of injury
- ii. ~~Apoptosis~~ Hypoxia, physical agent. *Toxins* Chemical and drugs, infectious agent, immunological factors, genetic derangements and nutritional imbalance.
- iii. Cellular swelling b- plasma membrane alteration c- mitochondrial changes d- dilatation of ER.

Cellular swelling

Plasma membrane

Alteration

ER

A 54-year-old man with a chronic cough has a squamous cell carcinoma diagnosed in his right lung. On examination, it was noted that the hilar lymph nodes are small, 0.5 to 1.0 cm in size, and jet black in color throughout.

- A. What is most likely diagnosis *Anthracosis*
B. What are pigments. *C = in the tissues*
C. What are endogenous type of pigments.

KEY :-

ANTHRACOSIS

- Pigments of the Body
- They are the coloring substance deposited in the tissue

A. ENDOGENOUS PIGMENTS *→ 4 Types*

- 1. Melanin
- 2. Melanin-like pigment
 - a. Alkaptonuria
 - b. Dubin-Johnson syndrome
- 3. Haemoprotein-derived pigments
 - i) Haemosiderin
 - ii) Acid haematin (Haemozoin)
- c. Bilirubin
- d. Porphyryns
- 4. Lipofuscin (Wear and tear pigment)
Lipofuscin

SGD 3

An obese man of 45 years having the habit of alcohol drinking have abnormal liver function tests with raised in ALT, AST and gamma gt and also high cholesterol level.



Q-

- A- BY correlating the picture above with his laboratory tests what is most likely lesion
- B- What are main causes of this lesion
- C- What will be the microscopic finding of his liver biopsy .

Fatty change of liver

Definition;

- Fatty change refers to any abnormal accumulation of ^{TAG} triglycerides within parenchymal cells.
- Site:

liver, most common site
heart, skeletal muscle, kidney, and other organs

Causes of fatty change

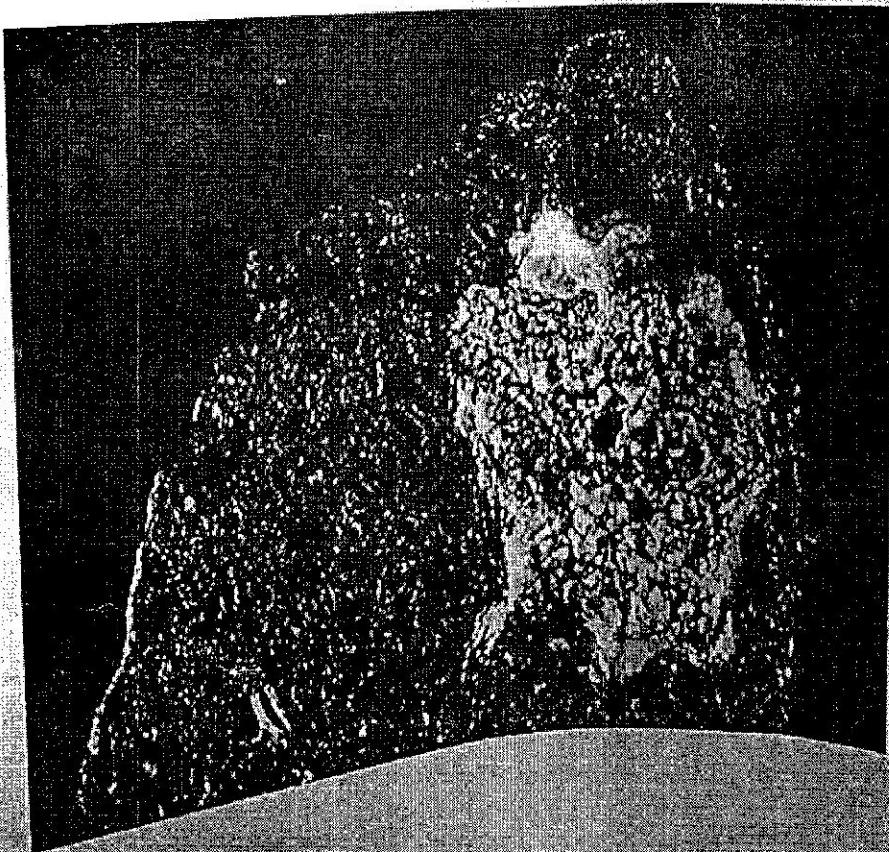
- Toxins (most importantly: Alcohol abuse)
- DM (2)
- Protein malnutrition (starvation) (3)
- Obesity (4) (5)
- Anoxia Toxins (most importantly: Alcohol abuse)
- DM
- Protein malnutrition (starvation)
- Obesity
- Anoxia

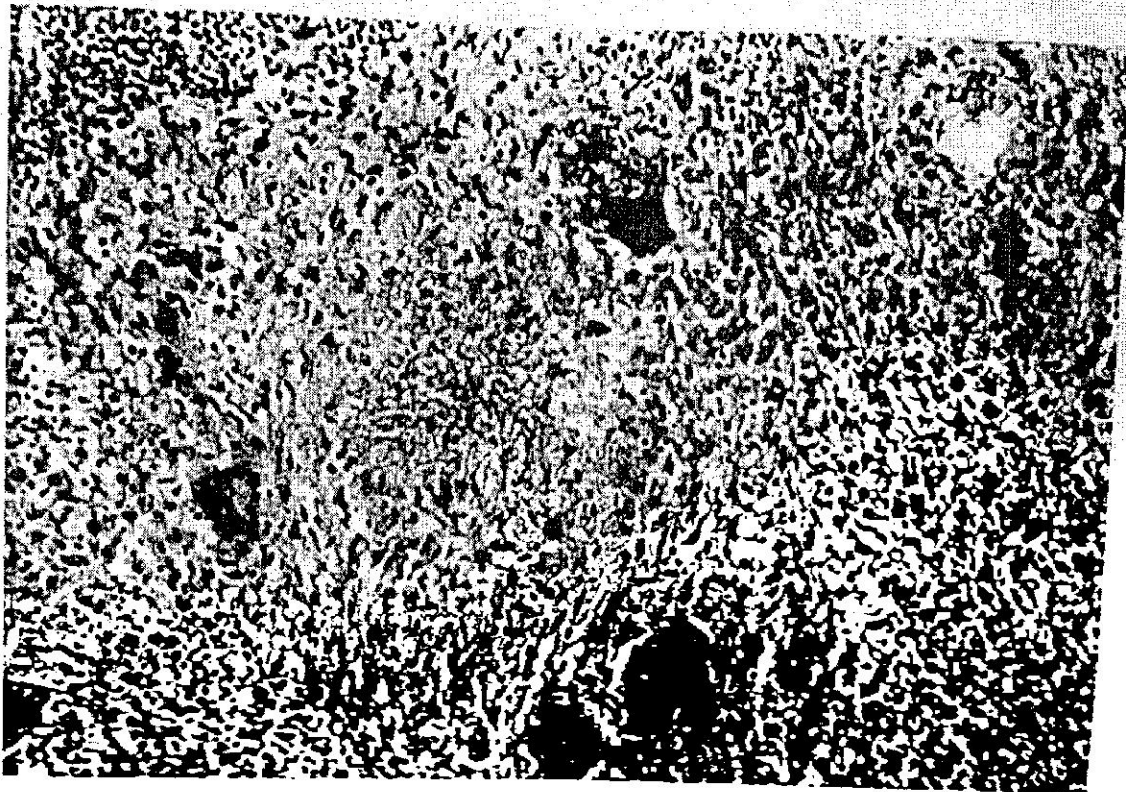
SGD-2

A 65 years old man having productive cough with low grade fever at evening time with loss of weight and his chest X-ray reveals apical opacity. His Biopsy report shows structures less eosinophilic material with epithelioid cells and multinucleated giant cells.

1. What is the name of necrosis?
2. What are others various forms of necrosis?

Note - can be appreciated by looking at these images)





Key:-

1. Caseous necrosis
2. Other types are :-

Liquefactive necrosis

Brain, abscess

Gangrenous necrosis

Intestine, lung

Coagulative necrosis

Heart, kidney

Fat necrosis

Pancreas
Breast