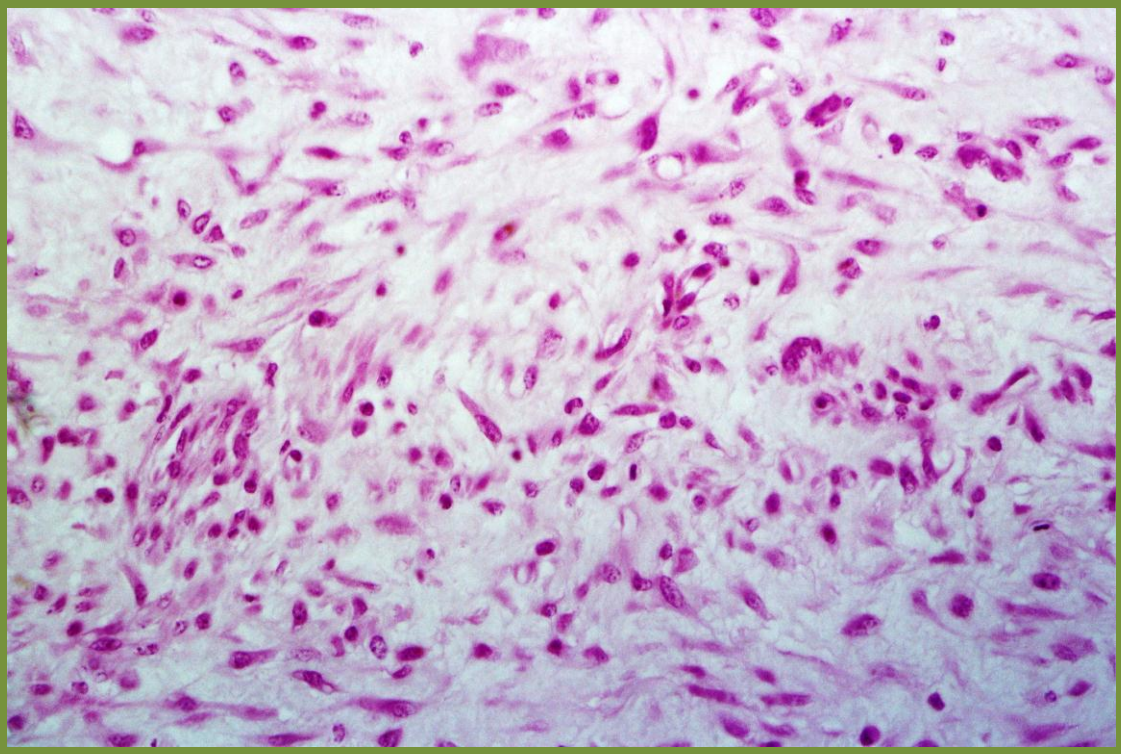
Organ: Skin

Stain: H&E

Lesion: Mucoid degeneration

Microscopical findings:

1. The affected connective tissue cells taken different shapes oval, rounded, fusiform or satellite or irregular.
2. The intercellular matrix appear as homogenous basophilic substance separating the cells from each other.
3. the cells showing delicate branching processes which running in various direction and criss-cross each other.



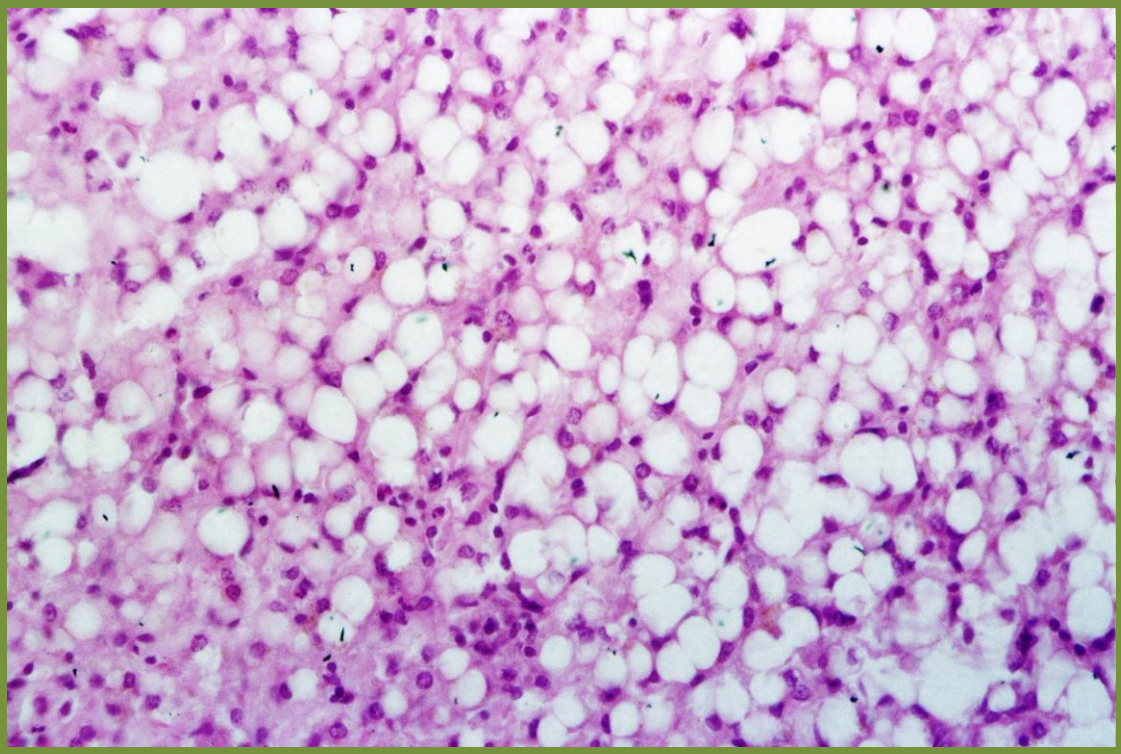
Organ: Liver

Stain: H & E

Lesion: Fatty changes

Microscopical findings:

1. the affected hepatocytes showing the presence of fat vacuoles which appear in the form of clear vacuoles in the cytoplasm of the hepatocytes.
2. The vacuoles well defined and displace the nucleus to the periphery given the cells (signet ring)appearance.
3. Some of These vacuoles coalesce with each other giving rising to large fat vacuoles.
4. Some of nuclei of hepatocytes become pyknotic .
5. The vacuoles differ from vacuolar degeneration as it clear, well defined and squeezed the nuleus to one side.



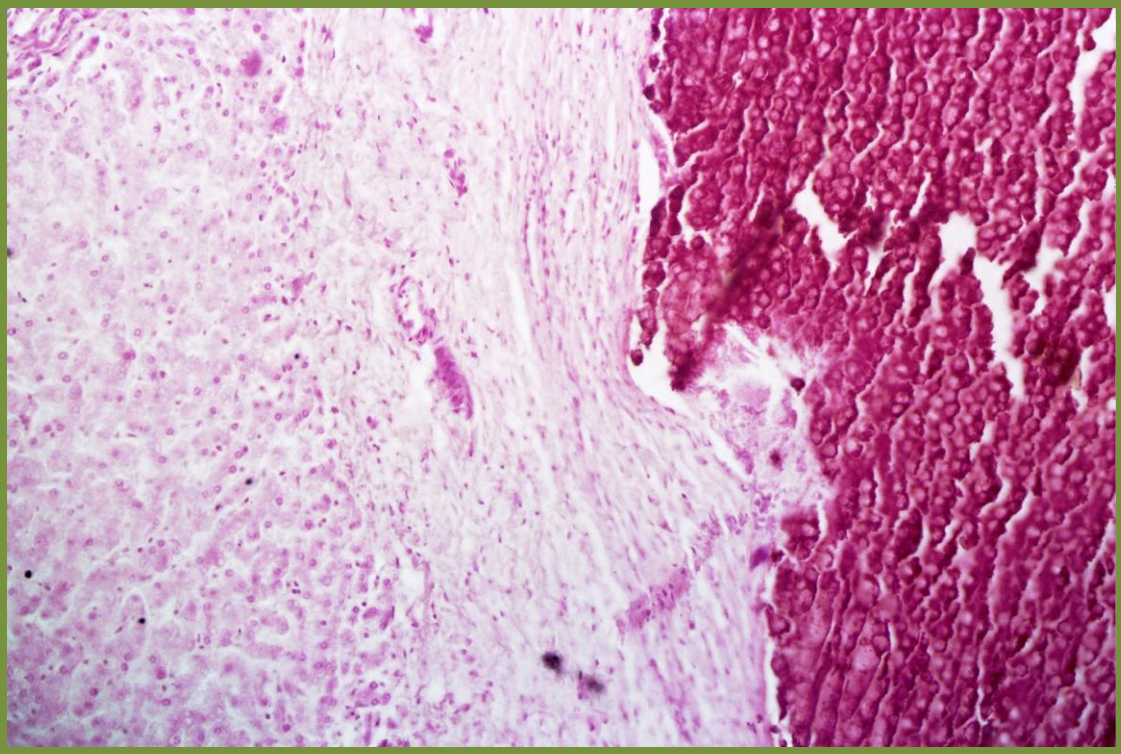
Organ: Liver

Stain: H & E

Lesion: Dystrophic calcification

Microscopical findings:

1. The calcium salts appears as purplish to bluish granular material seen in the lumen of old abscess.
2. The abscess surrounded with thick fibrious connective tissue capscule.
3. The hepatocytes beside the abscess suffering from degenerative changes.
4. Focal mononuclear infiltration were seen around the abscess



Organ: Liver

Stain: Von Kossa's stain

Lesion: Dystrophic calcification

Microscopical findings:

1. The calcium salts taken blackish coloration by Von Kossa's stain.
2. The remaining tissue stained red coloration by counter stain (neutral red 1%).

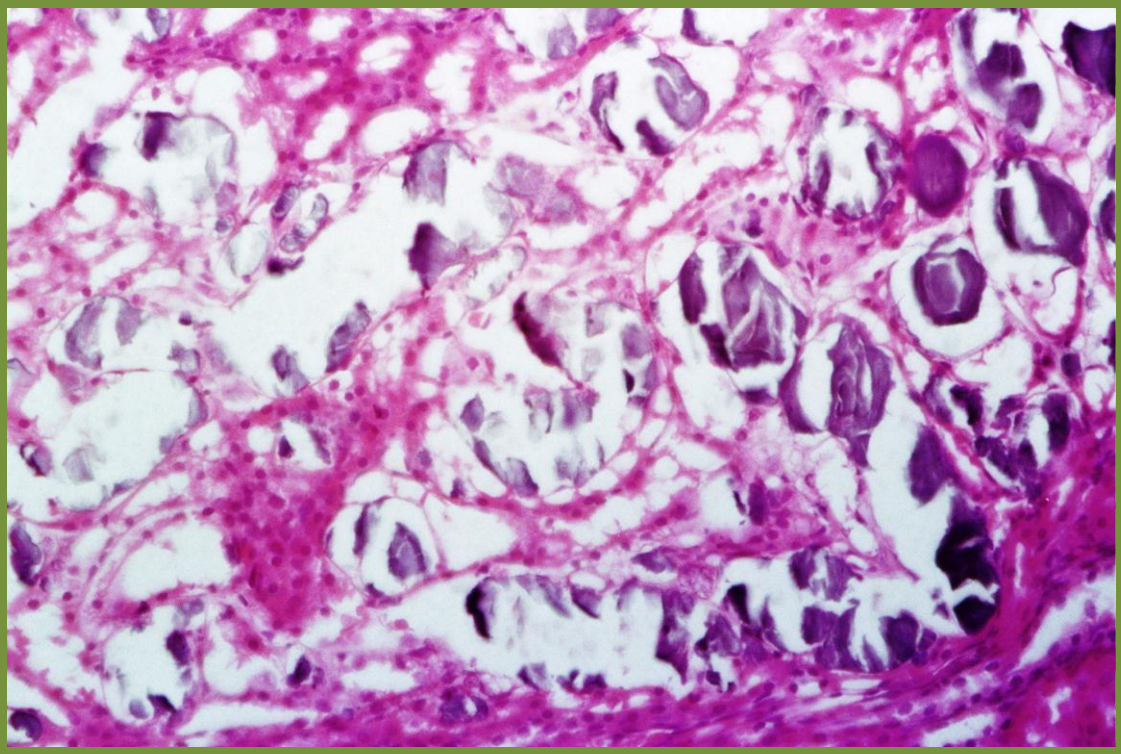
Organ: Kidney

Stain: H & E

Lesion: Metastatic calcification

Microscopical findings:

1. The lesion represented by the presence of bluish masses (calcium) in the lumen of the affected renal tubules which taken irregular shapes
2. The mostly affected part of the nephron is renal medulla
3. The lining epithelium of the renal tubules is desquamated.
4. Peritubular connective tissue prolifation were also noticed.



Organ: medium sized artery

Stain: H & E

Lesion: Medial calcification

Microscopical findings:

1. The tunica media of the affected artery showing the presence of basophilic granular substance (calcium salts)which replace the affected smooth and elastic fiber.
2. The lesion scattered in the tunica media.
3. The endothelial cells lining the affected artery showing destructive lesions.