

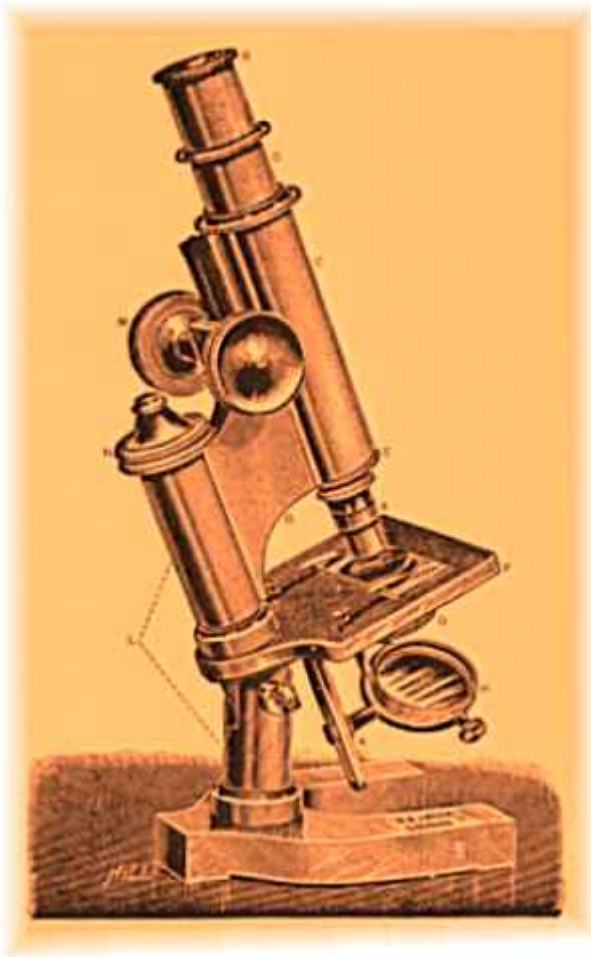


# Pathology Practical

**Review.**

**Email:** To contact us [Pathology433@gmail.com](mailto:Pathology433@gmail.com)

**Date:** 25-11-2013

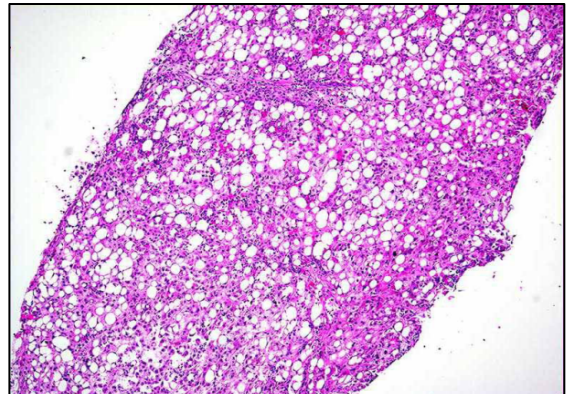
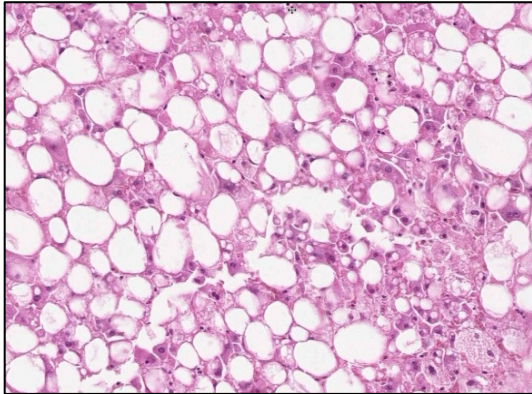


**CASE 1**

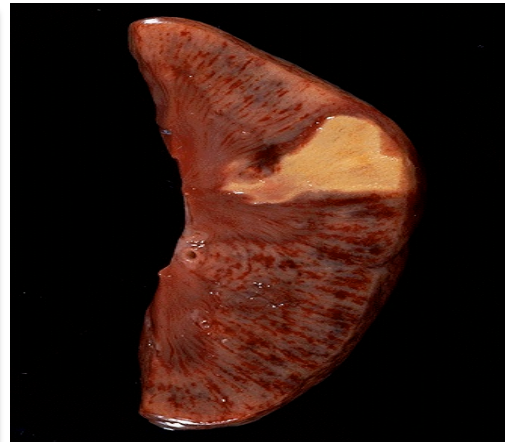
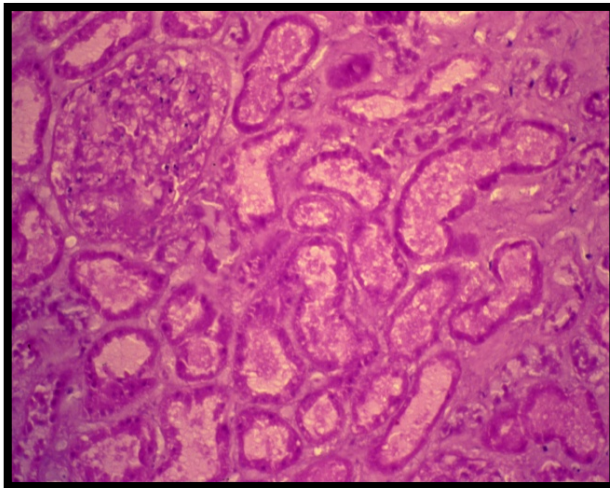
**Organ:** Liver.

**Diagnosis:** Steatosis (Fatty Liver)

**Gross description:** enlarged liver, yellowish color, greasy (oily).



**Microscopic description:** clear vacuoles of dissolved fat with peripheral nuclei.

**CASE 2**

**Organ:** Kidney.

**Diagnosis:** Coagulative necrosis.

**Gross description:** triangular cortical infarct.

**Microscopic description:** No nuclei, ghost cells only.

### CASE 3

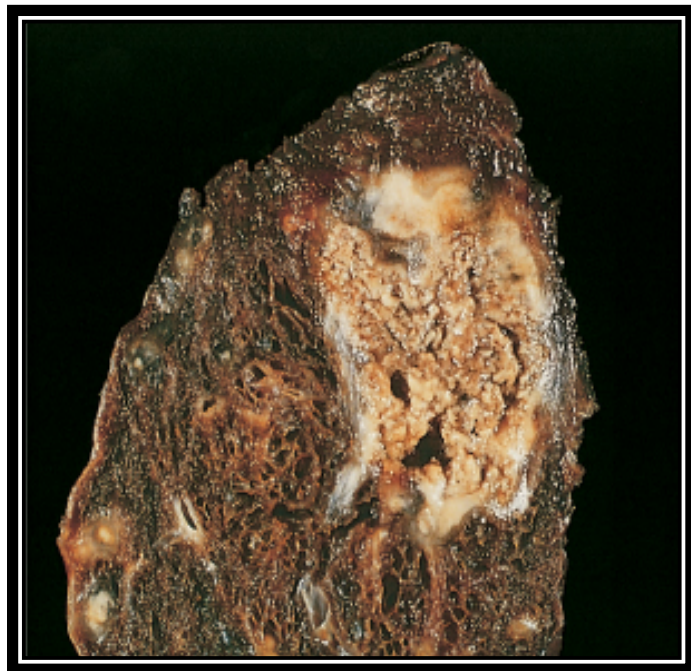


#### Liquefactive necrosis

**Organ:** Brain.

**Diagnosis:** Liquefactive necrosis in brain leads to resolution with cystic spaces.

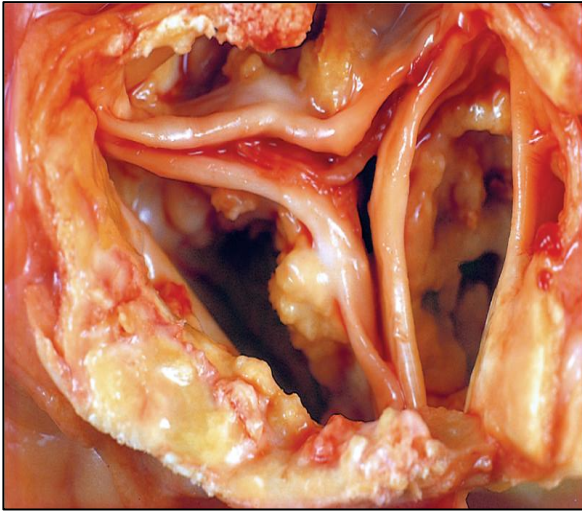
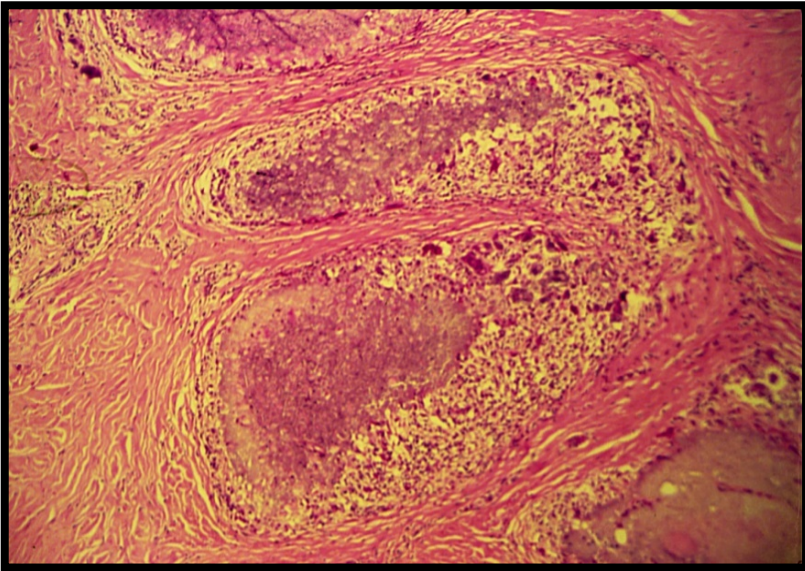
### CASE 4



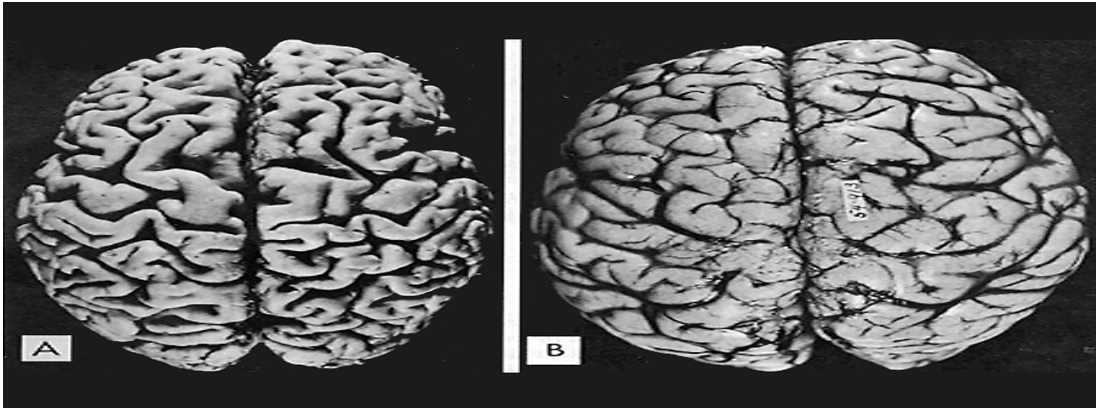
#### Caseous Necrosis

**Organ:** lung

**Diagnosis:** Caseous necrosis (tuberculosis)

**CASE5****Calcification****Organ:** aortic valves.**Diagnosis:** Dystrophic calcification.**Gross description:** Fused (closed) and calcified aortic valve.**NOTE:** It is normal calcification.**CASE 6****DYSTROPHIC CALCIFICATION OF SKIN:****Microscopic description:** Irregular blue granular deposits of calcium surrounded by fibrous tissue and giant cell reaction.**Additional questions:**-Causes of increased serum calcium: **Metastatic malignancy to bone, hyperparathyroidism, milk alkali syndrome and vitamin D intoxication****dystrophic calcification** is the deposition of calcium in abnormal tissue without abnormalities of blood calcium. (normal calcium serum in blood)

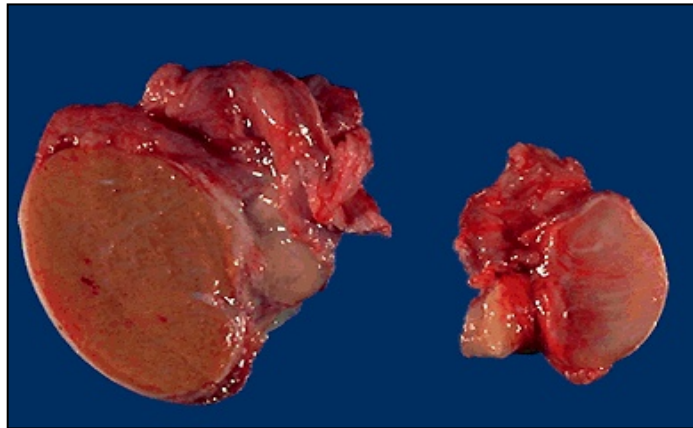
### CASE 7



#### Atrophy

Atrophy of the brain: in A (Atrophy= shrinking)

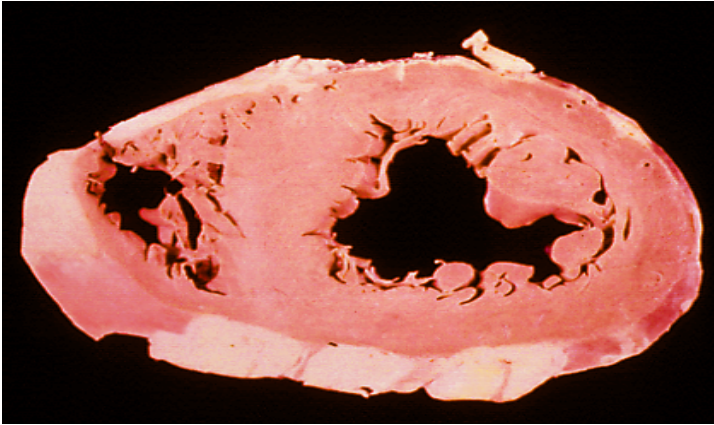
### CASE 8



Organ: Testis

#### Atrophy

Diagnosis: Atrophy

**CASE 9****Hypertrophy**

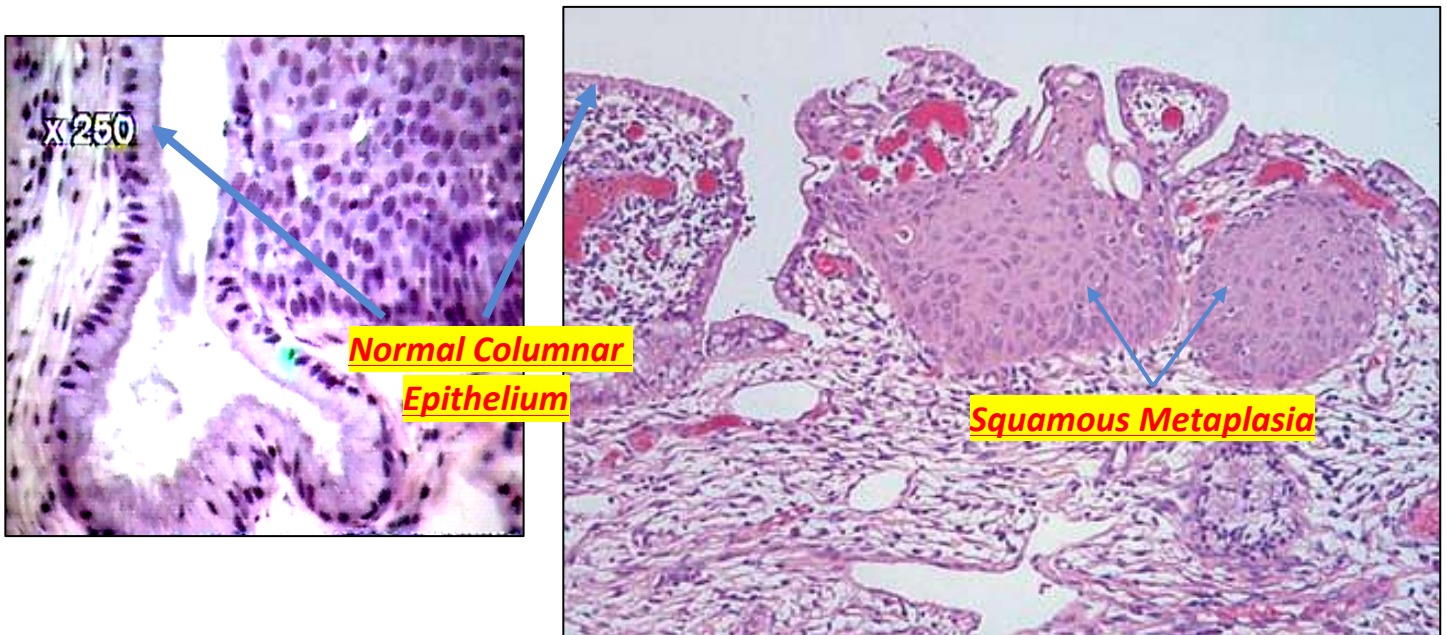
**Organ:** Heart.

Normal Heart in the left picture.

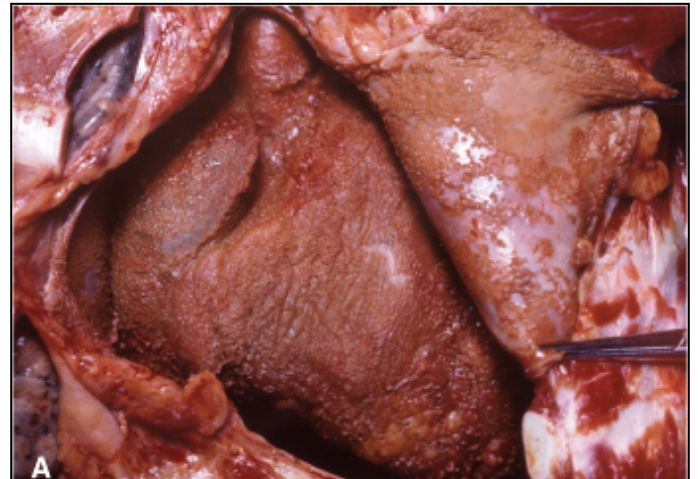
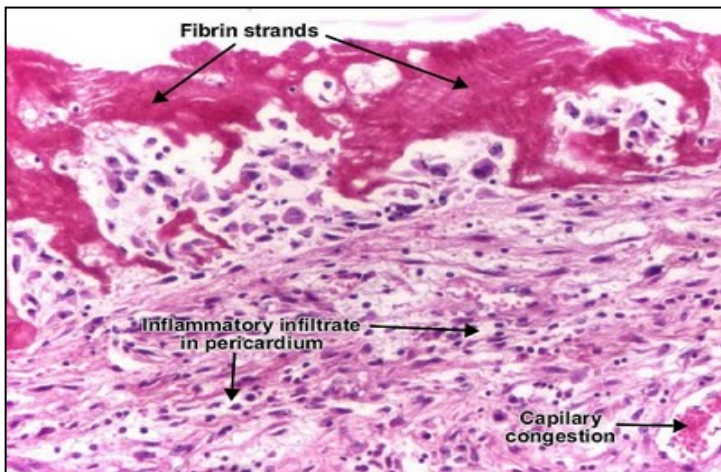
Left ventricular hypertrophy in the right picture.

**CASE 10****Hyperplasia of the prostate**

**Microscopic description:** Corpora amylacea, large number of glands of variable sizes lined by tall columnar epithelium, increase in fibromuscular stroma.

**CASE11****Endocervical squamous metaplasia.**

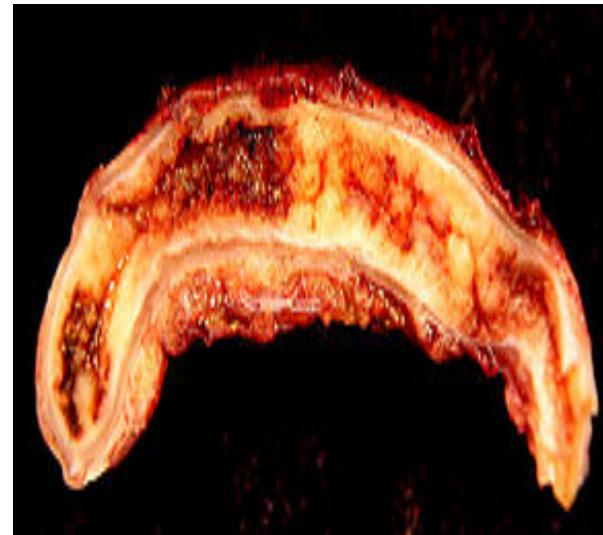
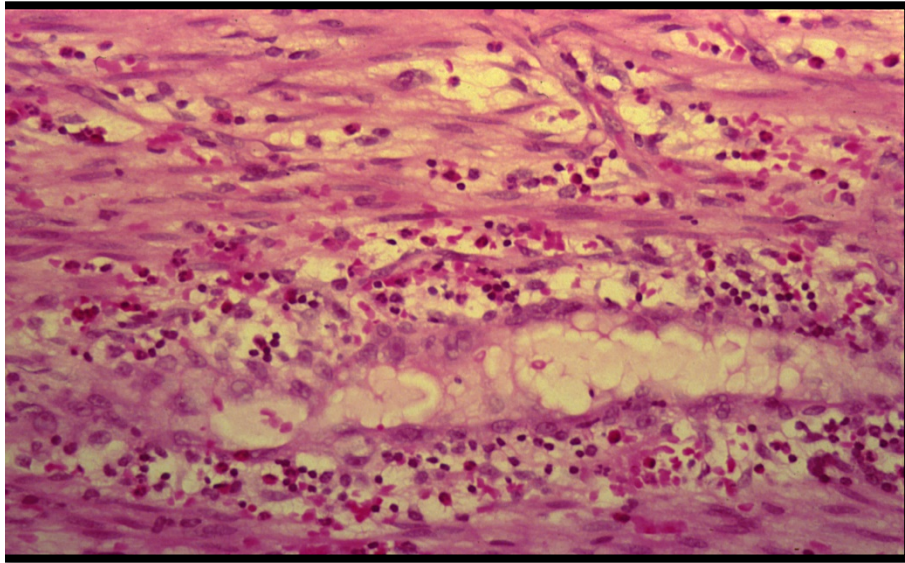
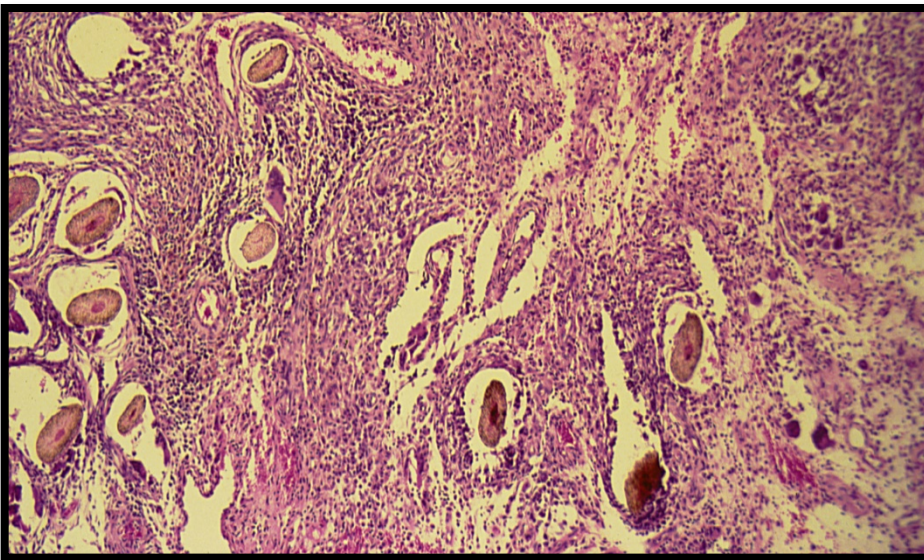
A section of endocervix shows the normal columnar epithelium at both margins and a focus of squamous metaplasia in the center in a background of chronic inflammation.

**CASE12****Pericarditis**

**Organ:** Pericardium.

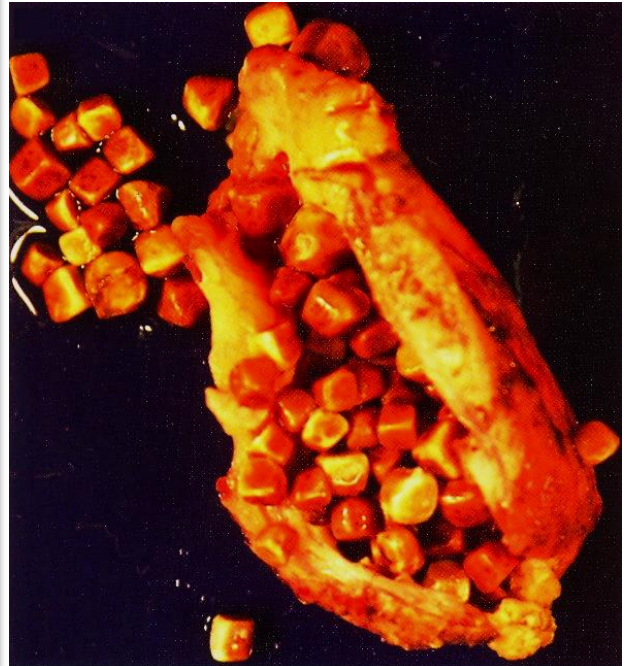
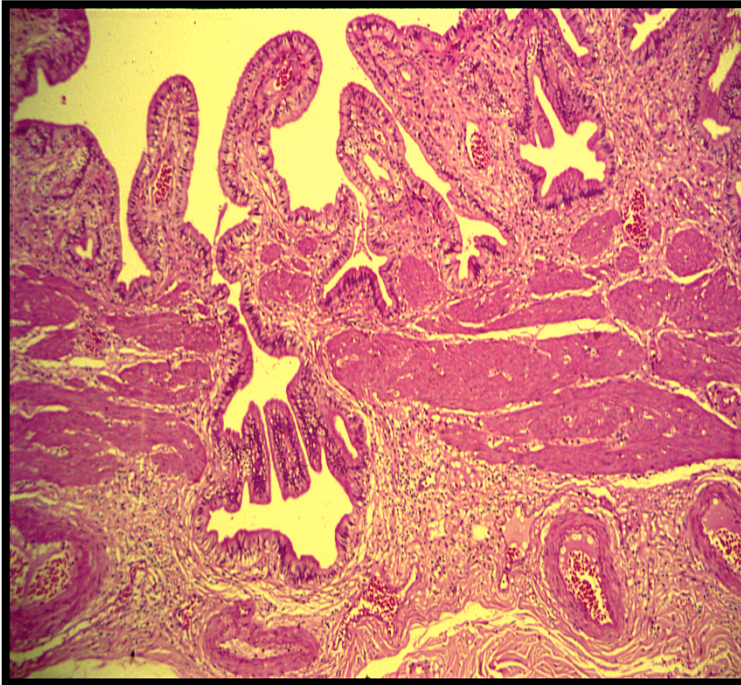
**Diagnosis:** Fibrinous Pericarditis.

**Microscopic description:** pinkish fibrinous, inflammatory cells, RBCs, edema, calcification areas.

**CASE13****Organ:** Appendix.**Diagnosis:** acute appendicitis.**Microscopic description:** inflammatory cells, many neutrophils, edema, mucosa is ulcerated.**CASE14****Organ:** Skin**Diagnosis:** pilonidal sinus.**Gross description:** Section of the skin shows sinus tract with impacted tufts of hair shafts.**Microscopic description:** sinus, inflammatory cells, hair shafts.**SINUS:** A track lined by vascular granulation tissue and chronic inflammatory cells with **Only one opening**.**FISTULA:** A track lined by vascular granulation tissue and chronic inflammatory cells with **Two openings**. {Comparison between them had came in previous year OSPE}



## CASE 15

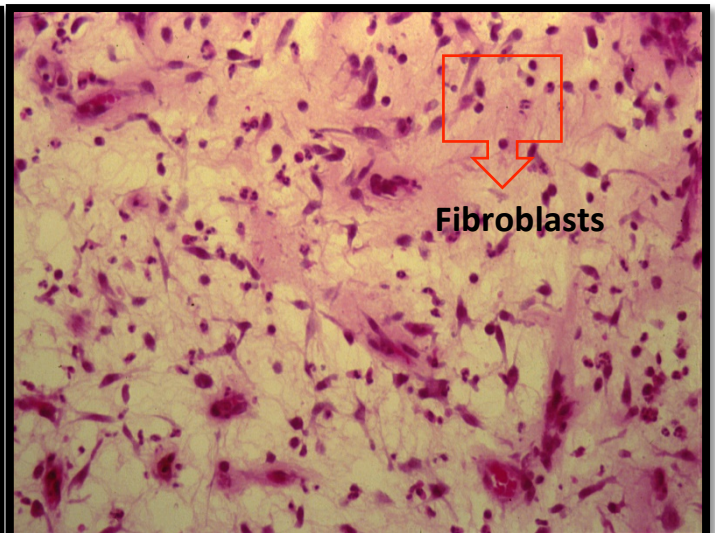
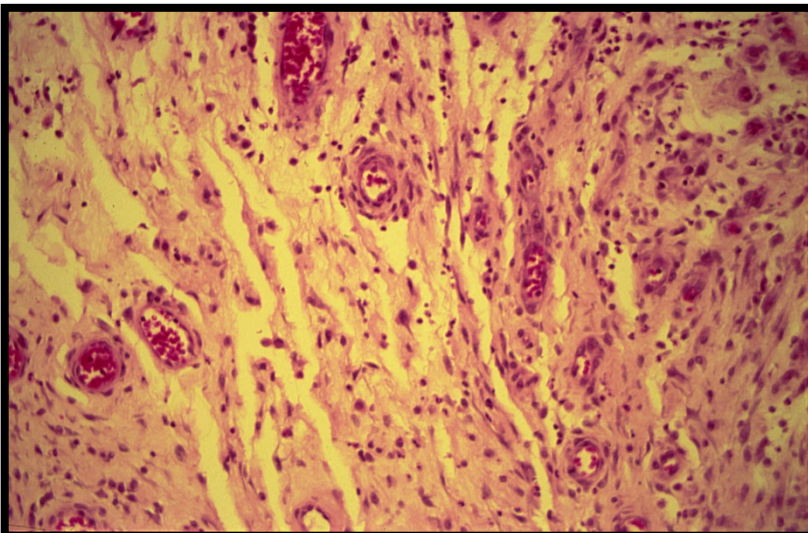


**Organ:** Gallbladder.

**Diagnosis:** Chronic cholecystitis with stones.

**Microscopic description:** Rokitansky-Aschoff sinuses, inflammatory cells and fibrosis.

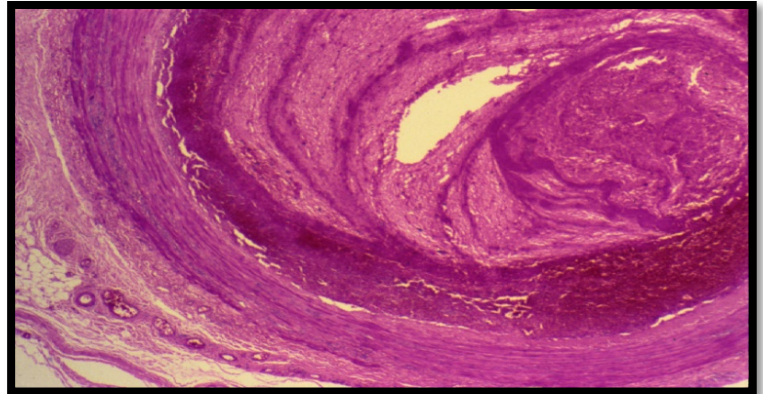
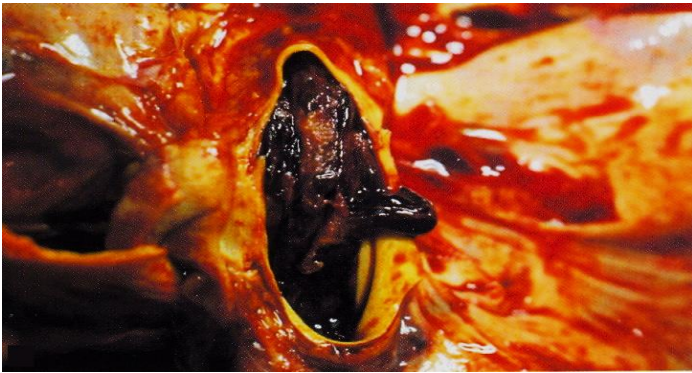
## CASE 16



## Granulation Tissue

**Microscopic description:** fibroblasts are seen, Inflammatory cells including macrophages, lymphocytes, plasma cells and neutrophils in the edematous stroma, pink homogenous collagen fibers may be identified. **Where? It Can be seen in Healing wound, fistulae, sinus.**

**CASE17**



Organizing thrombus (in pulmonary embolism):

**Microscopic description:** thrombus which consists of layers of platelets with fibrin thread and clotted blood (lines of Zahn).

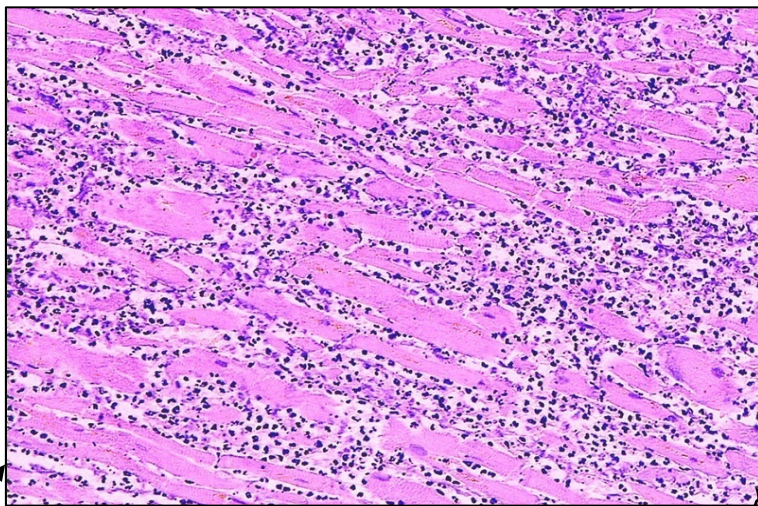


**Myocardial infarction**



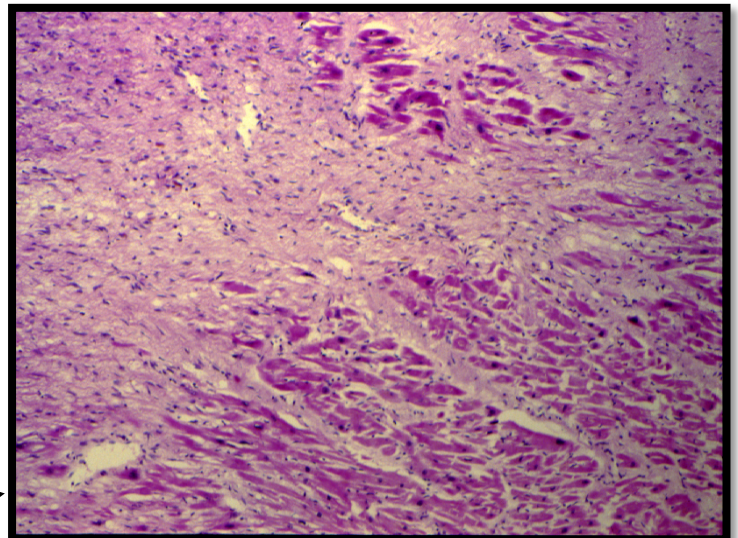
**Pulmonary embolus with infarction.**

(Embolism means formed in a place and transfer to another place from blood circulation)

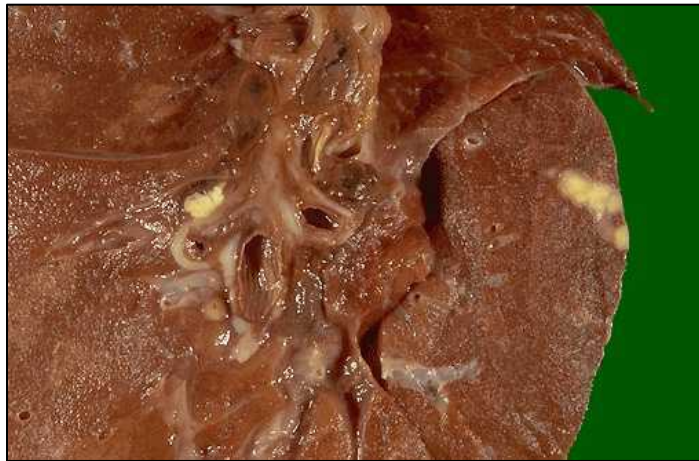


(Acute, recent stage)

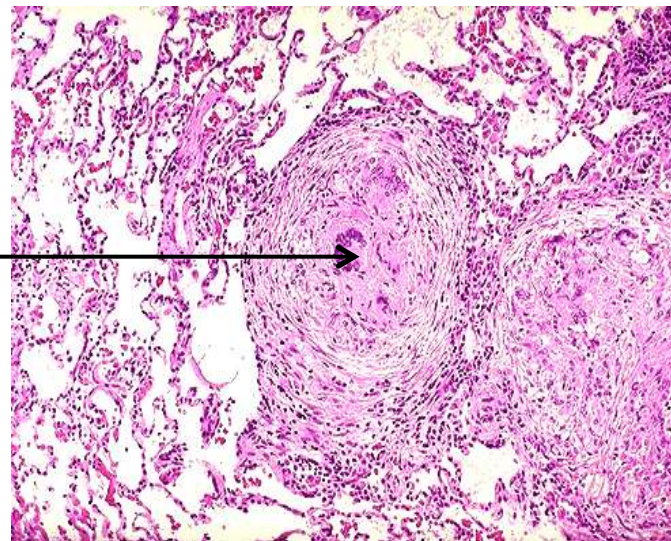
(Late stage)



**Microscopic description:** Infiltration of neutrophils in recent stage is seen, later granulation tissue formation and fibrosis.

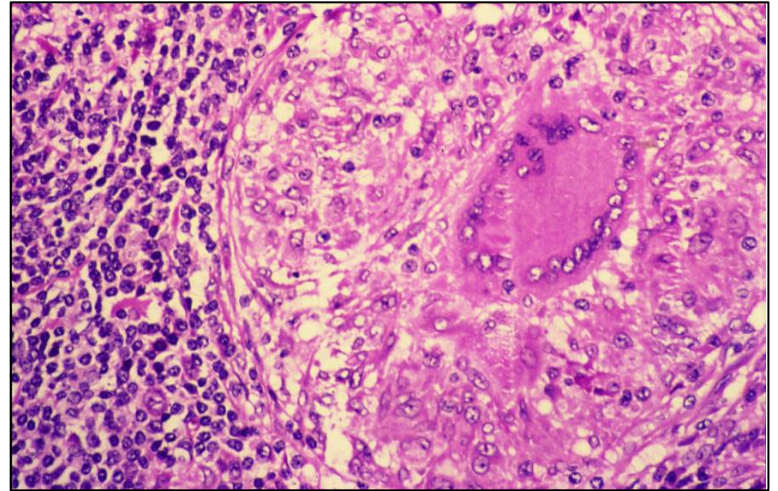
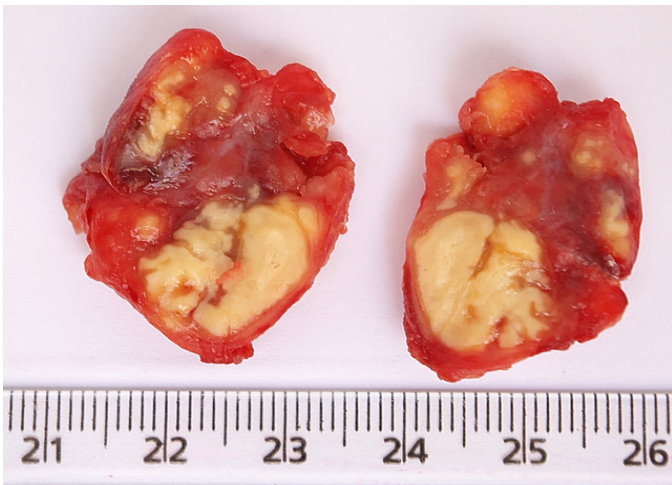
**CASE18****Small intestine infarction****CASE19**

**Organ:** Lung.  
**Diagnosis:** Ghon's Complex  
 (Primary TB)

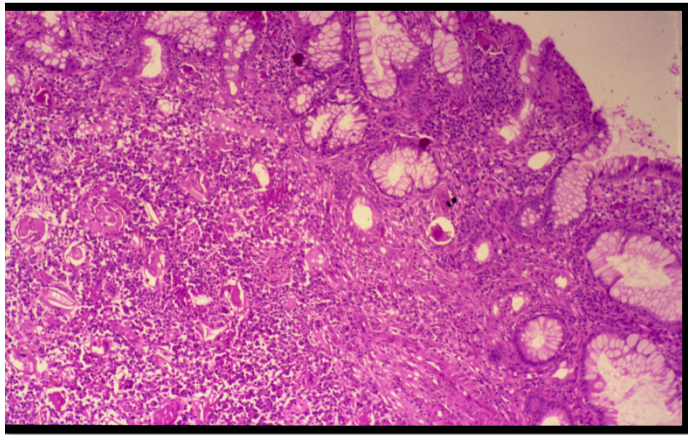
**CASE20****Gaint cell****Miliary tuberculosis of the lung**

**Microscopic description:** epithelioid cells , few langhan's giant cells and peripheral rim of lymphocytes with or without caseation

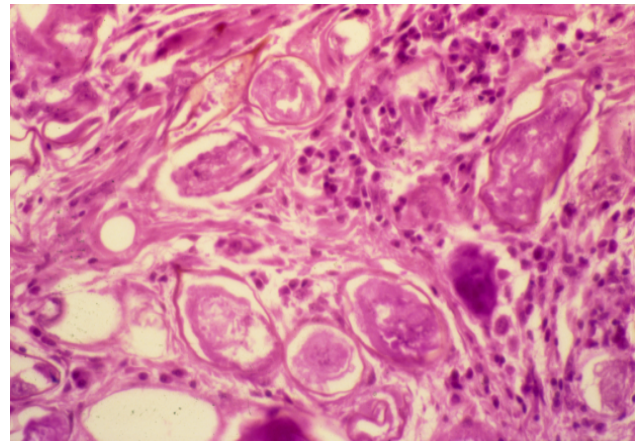
**Stain for Mycobacterium tuberculosis is : AFB {ACID-FAST BACILLI} or ZN {Ziehl-Neelsen }**

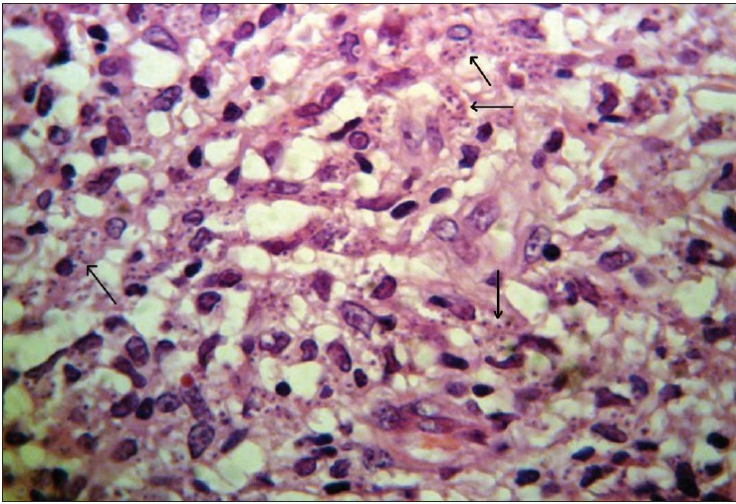
**CASE21****Tuberculous lymphadenitis**

**Microscopic description:** Epithelioid and giant cell granuloma, Lymphocytes.

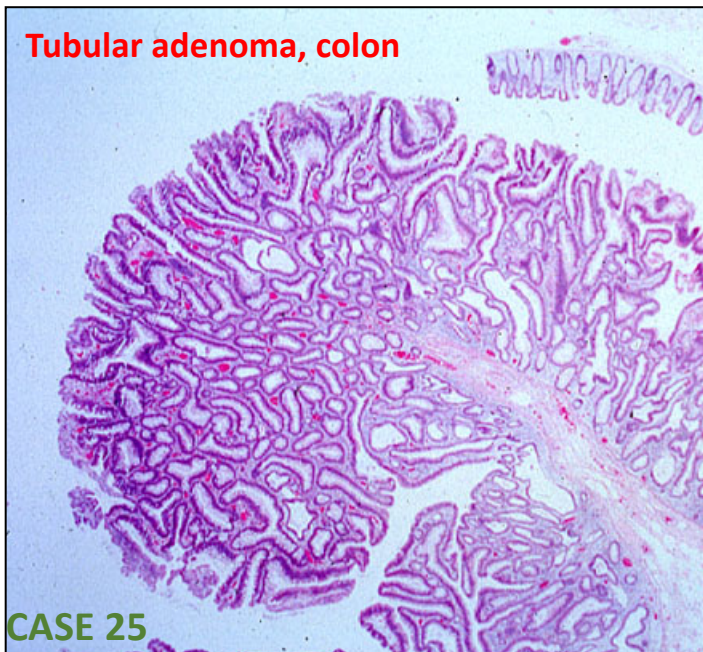
**CASE22****Colonic**

**Microscopic description:** Many Bilharzial ova with yellow brown shells surrounded by fibrosis and chronic inflammatory cells consisting of lymphocytes, plasma cells and many eosinophils, few granulomas.

**Schistosomiasis of the urinary bladder**

**CASE 23****Cutaneous leishmaniasis**

**Microscopic description:** infiltration and parasites (Leishman bodies) within macrophages.

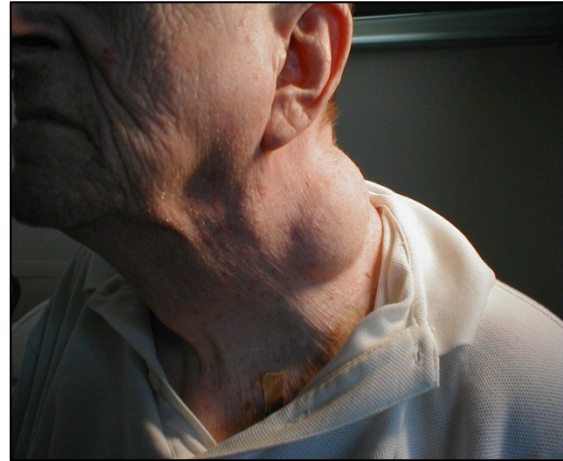
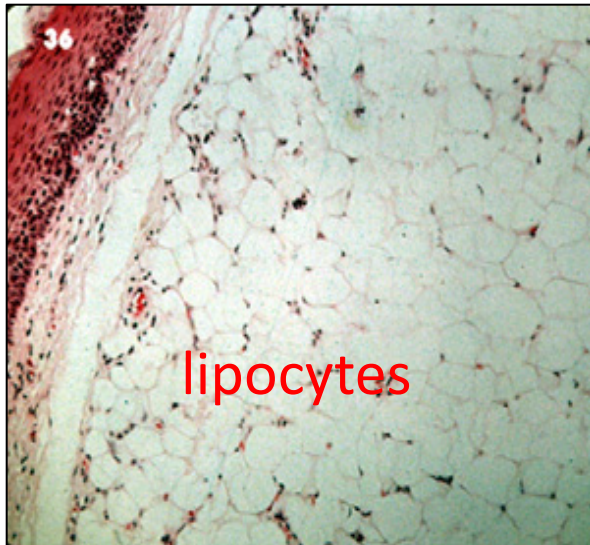
**CASE 24****Tubular adenoma, colon**

**Organ:** Colon

**Diagnosis:** adenoma

**Microscopic description:** Hyperplastic villous mucosa, Proliferating glands and Fibro vascular core.

**Note:** polyposis syndrome (same family 100's polyps) is not a cancer.

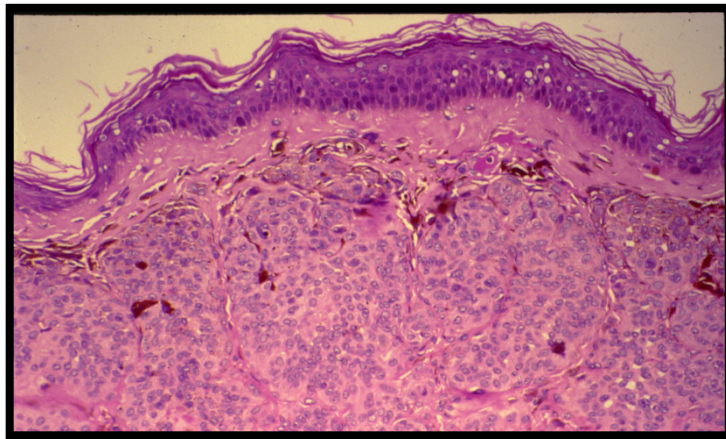


### Lipoma of the neck

**Gross description:** Soft tissue and subcutaneous swelling with overlying intact skin in the neck

- It is benign tumor.
- Malignant tumor of soft tissue is **Liposarcoma**.

### CASE 26



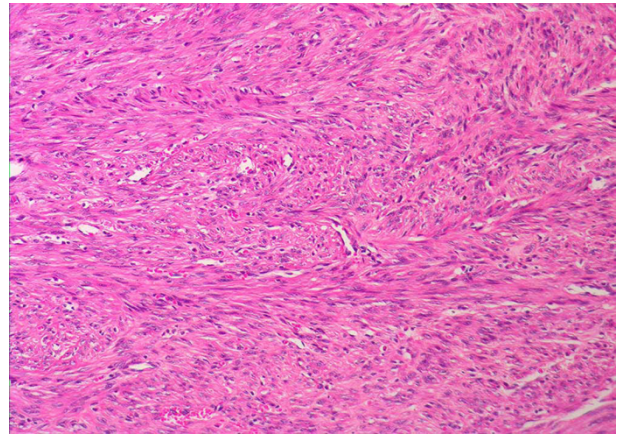
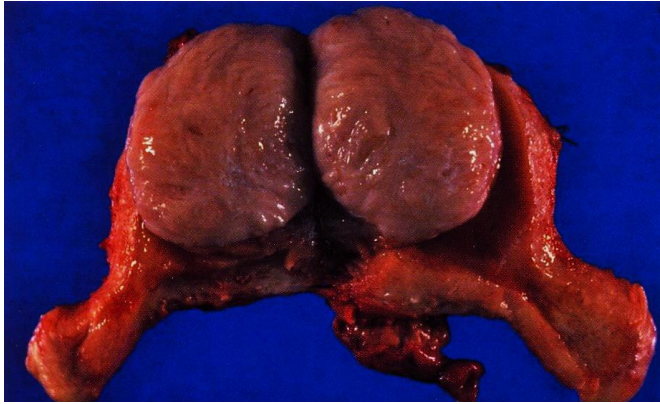
### Skin nevus

**Gross:** Raised and pigmented skin lesion.

**Microscopic:** Proliferating benign intradermal melanocytes, nevus cells containing melanin pigment.

**Note:** malignant counterpart is melanoma.

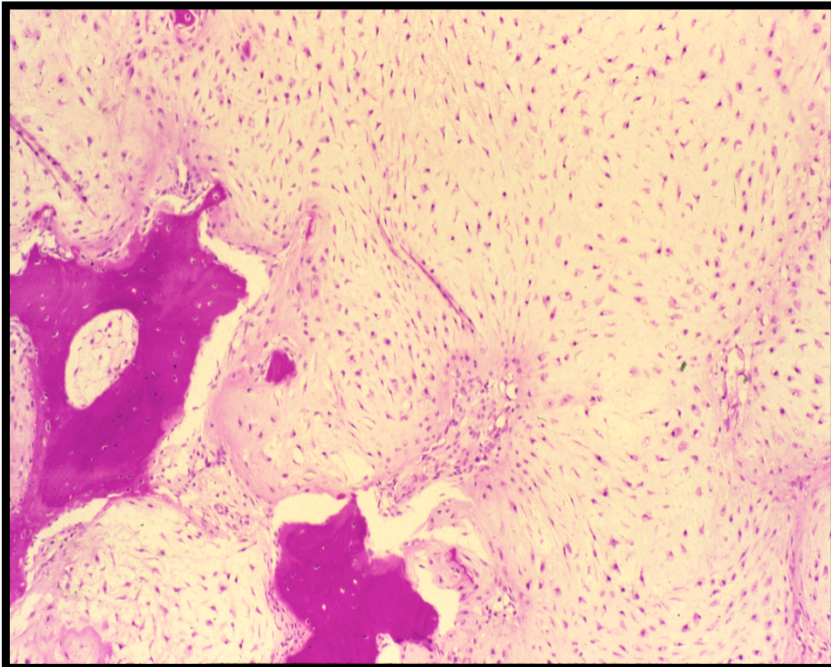
### CASE 27



Leiomyoma (uterine)

-Malignant tumor is Leiomyosarcoma

### CASE 28

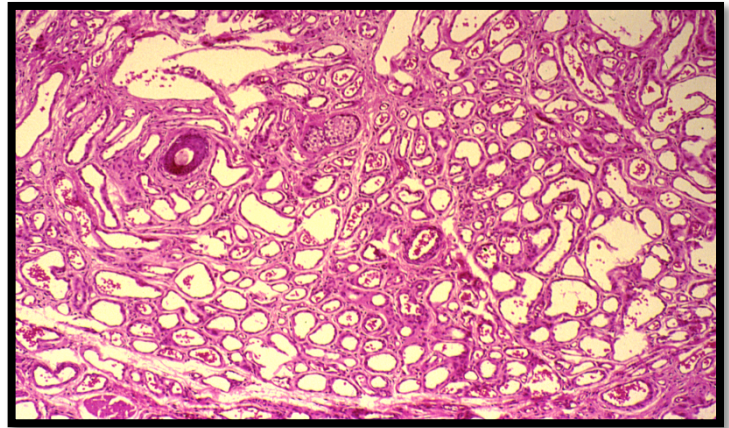


## Enchondroma of the fibula

### CHONDROMA OF BONE

-Malignant tumor is chondrosarcoma.

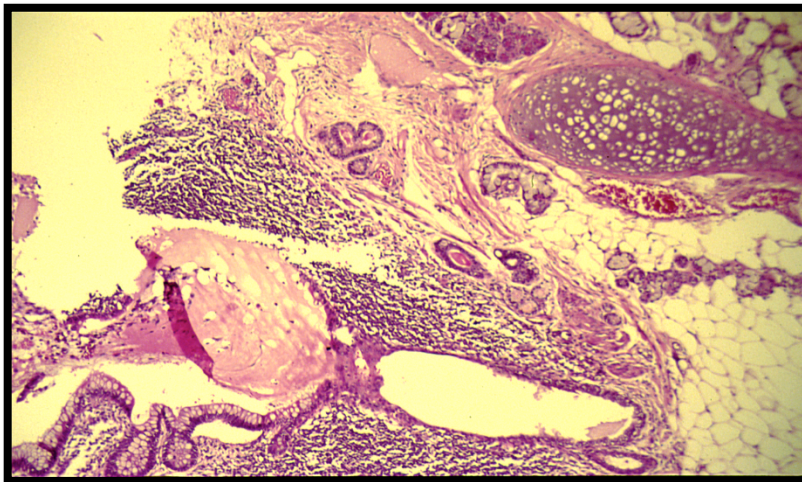
### CASE 29



### HEMANGIOMA

**Gross:** Reddish, hemorrhage, pimples on the skin causes pain.

### CASE 30

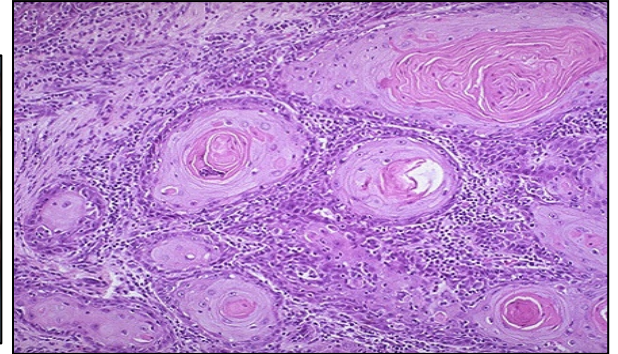


### Teratoma

Dermoid cyst of the ovary.  
(benign cystic teratoma of the ovary).

**Microscopic:** Stratified Squamous epithelium with underlying appendages (sweat glands, sebaceous glands, hair follicles) columnar ciliated epithelium, mucous and serous glands and structures from other germ layers such as bone and cartilage, lymphoid tissue, smooth muscle and large area of brain tissue containing neurons and glial cells.

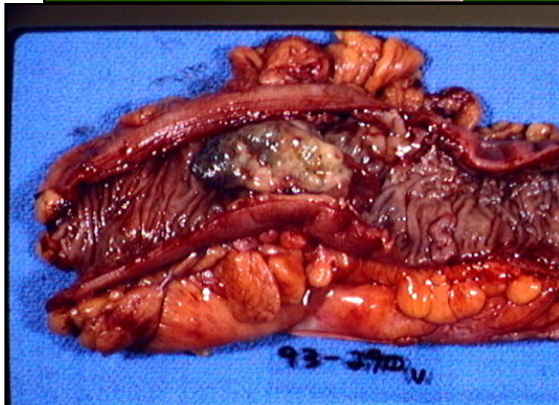
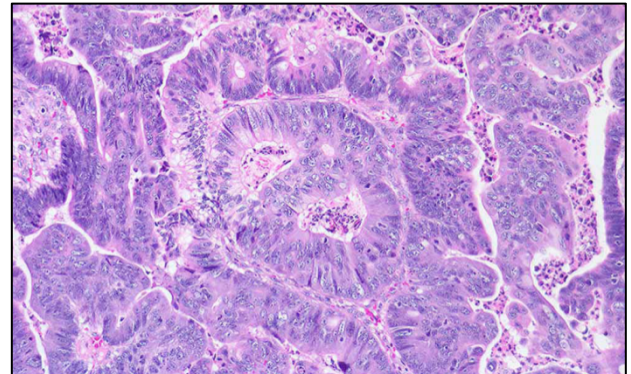
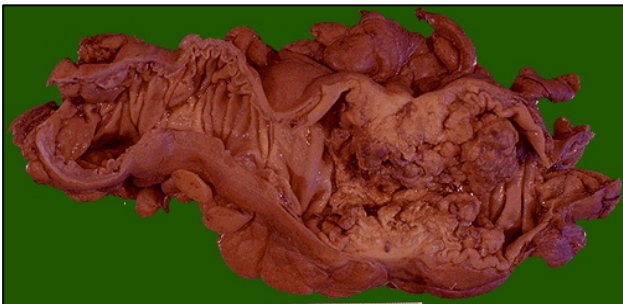


**CASE 31****Squamous cell carcinoma (skin)**

**Microscopic:** The dermis is infiltrated by masses of well differentiated malignant squamous cells which are separated by fibrous tissue stroma with chronic inflammatory cells. Pinkish laminated keratin pearls.

The predisposing factor of this lesion is mainly chronic exposure to sun light .

Tumour cells show pleomorphism , hyperchromatism and many mitotic figures .

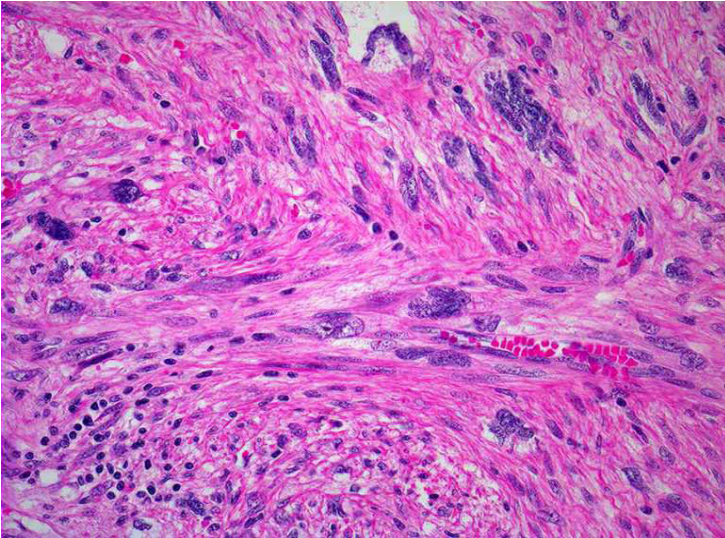
**CASE 32**

**Organ:** Colon.

**Diagnosis:** adenocarcinoma.

**Gross:** Infiltrating, hemorrhaging, irregular adenocarcinoma arising from colon mucosa.

**Adenocarcinoma of the large intestine:** several layers of malignant cells with papillary projection showing pleomorphism, hyperchromatism and few mitoses.

**CASE 33****Leiomyosarcoma**

**Gross:** irregular fleshy mass with hemorrhage and necrosis.

**Microscopic:** Pleomorphic cells, atypical cells, multinucleation, mitoses.