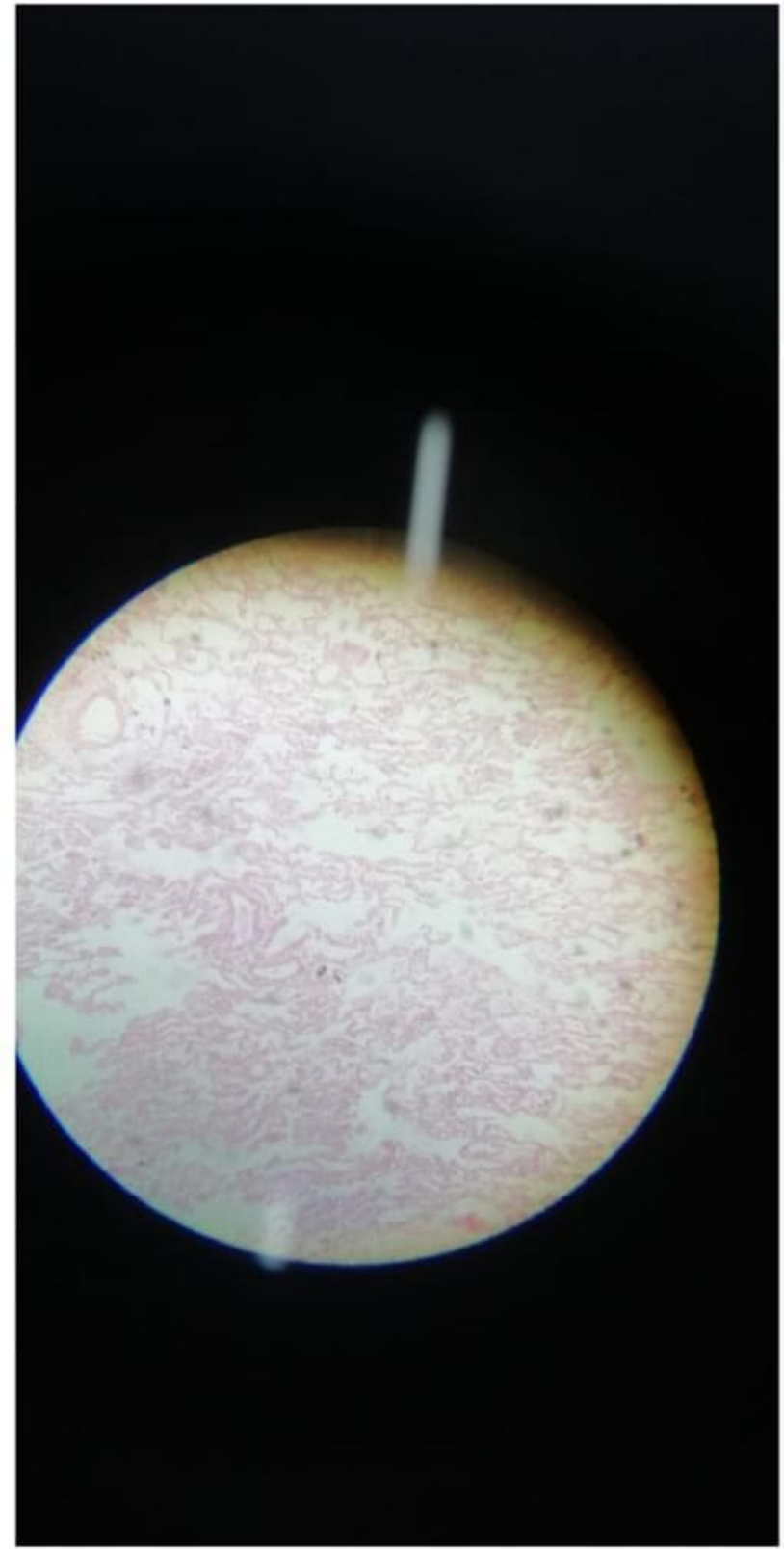

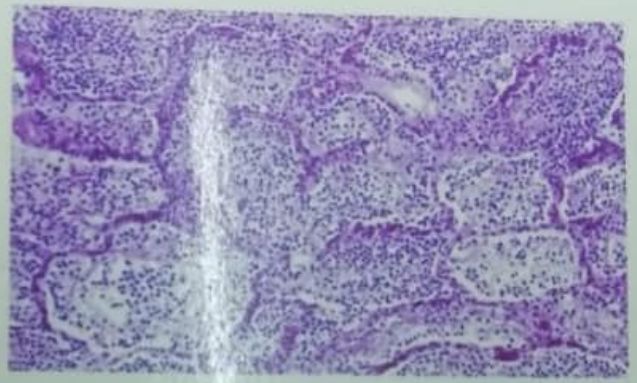

RED HEPATIZATION

Marked congestion of alveolar wall capillaries with intra alveolar exudate.

Massive confluent exudate with red cells, neutrophils and fibrin fill the alveolar spaces.

Extravasted red cells give the red colour.

17

UPGRADED DEPARTMENT OF PATHOLOGY OSMANIA MEDICAL

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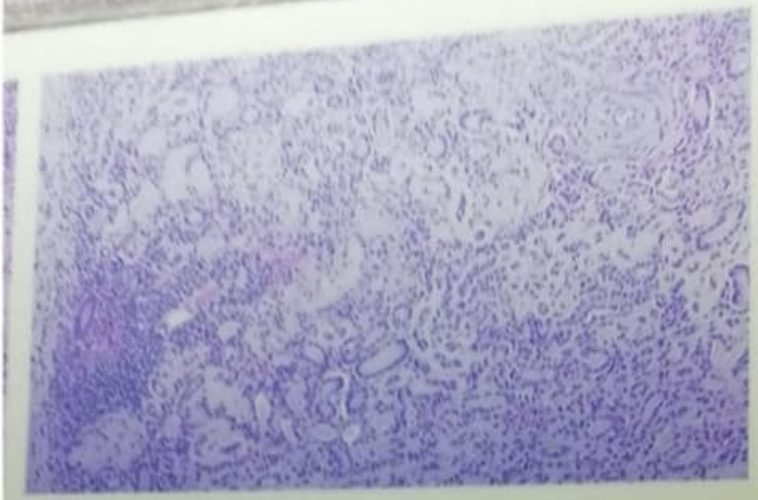


CHRONIC GLOMERULONEPHRITIS

Tubules : show atrophy of tubules. tubular lumina contain eosinophilic homogenous casts.

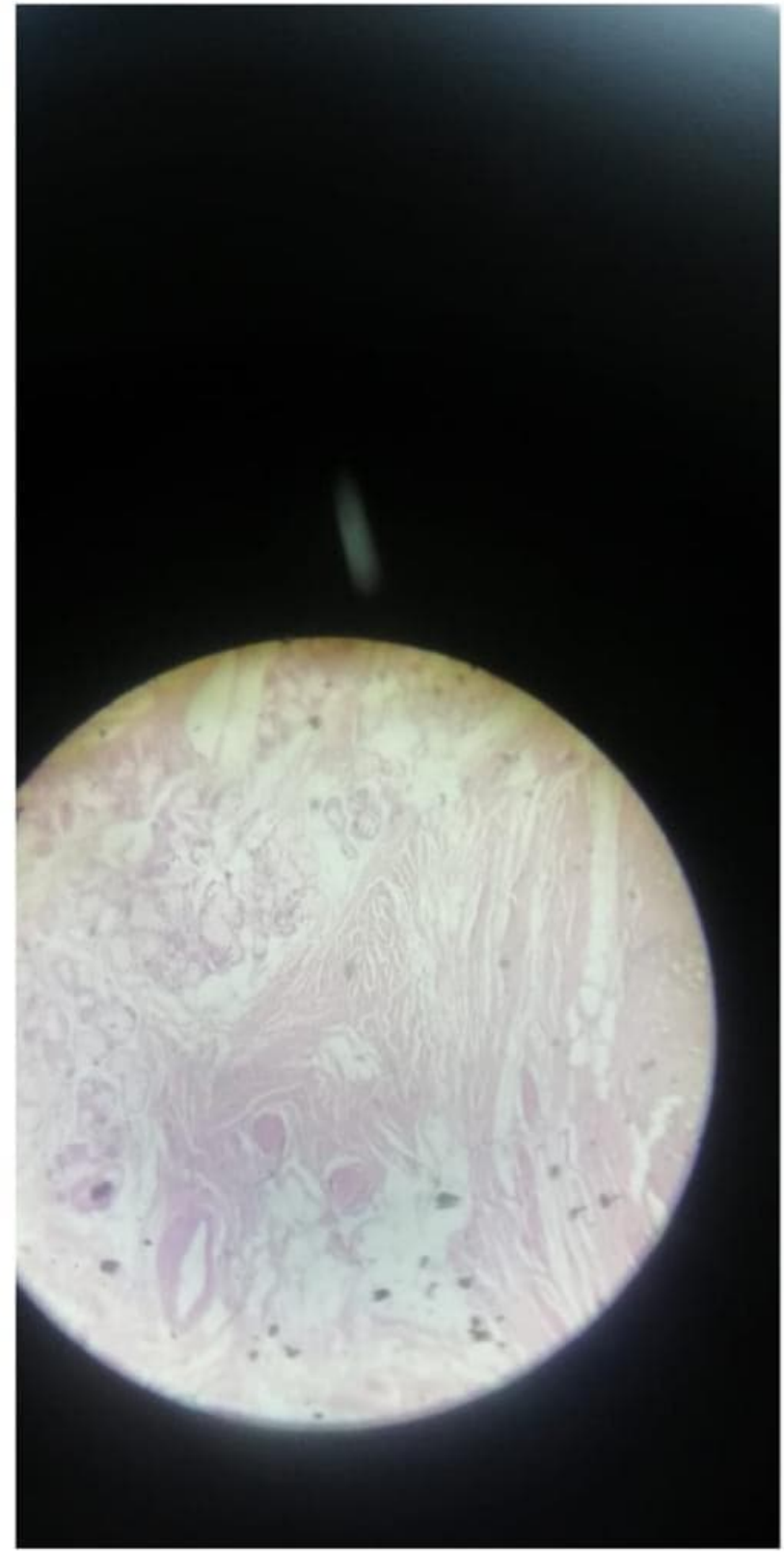
Glomeruli : Are reduced in number and most of them are hyalinised,they appear as acellular eosinophilic homogenous casts.

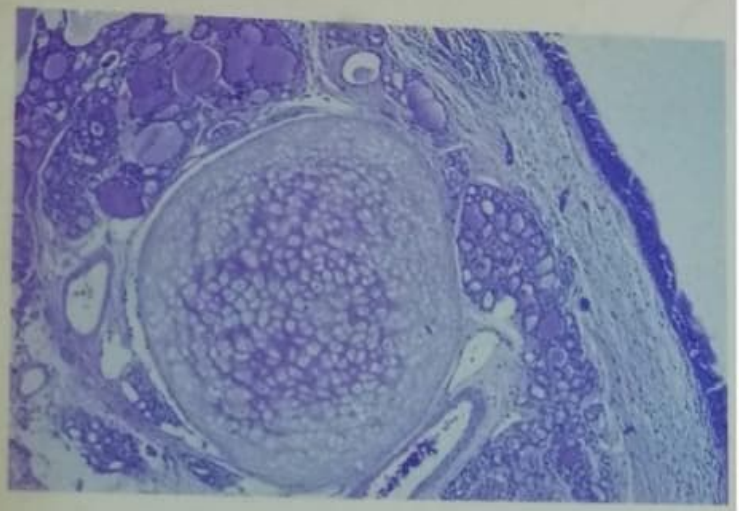
Interstitium : shows irregular fibrosis and lymphocytic infiltrate.

EGE

33

SMA





TERATOMA

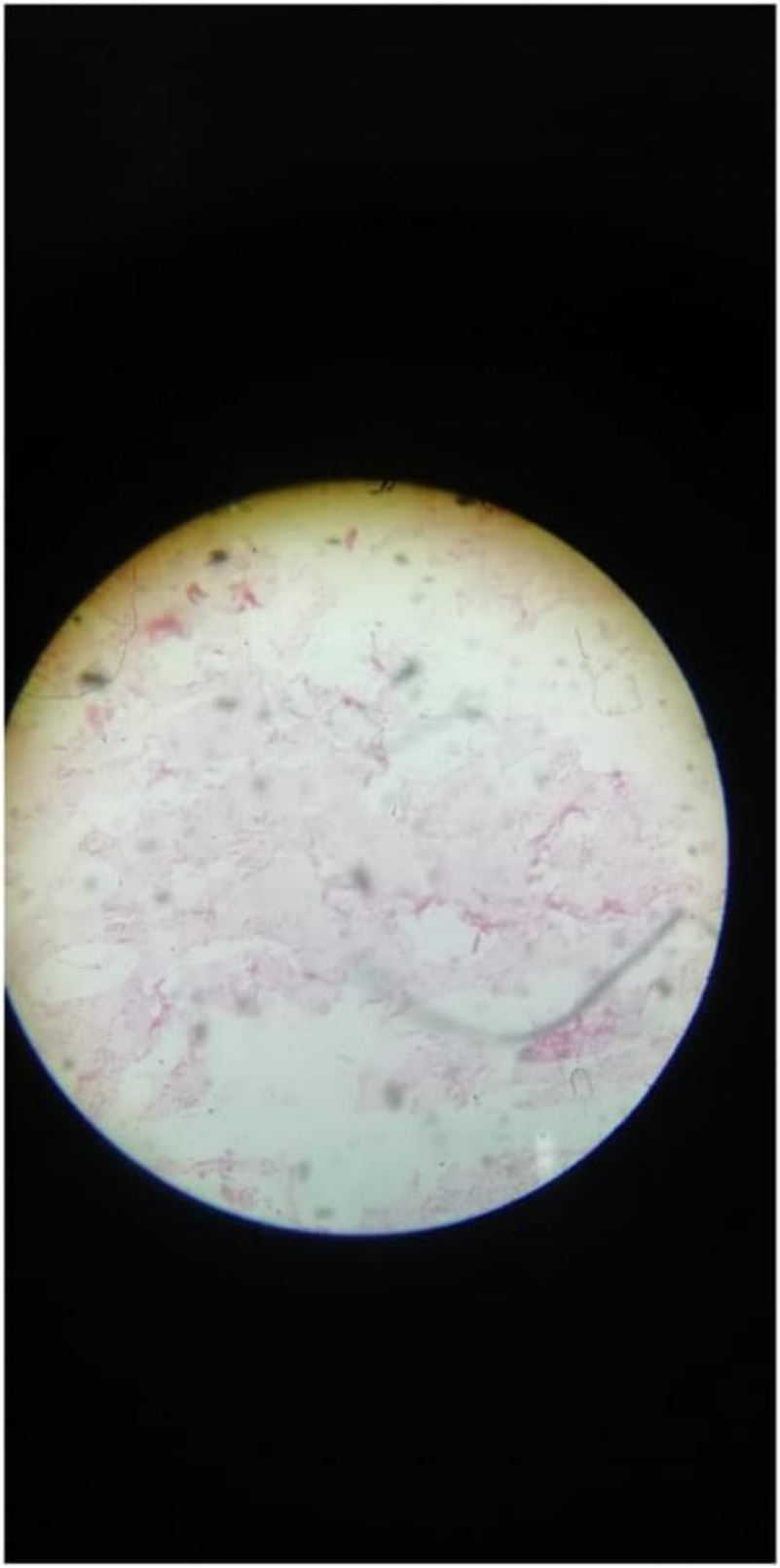
Teratoma arises from totipotent cells and seen principally in the gonads.

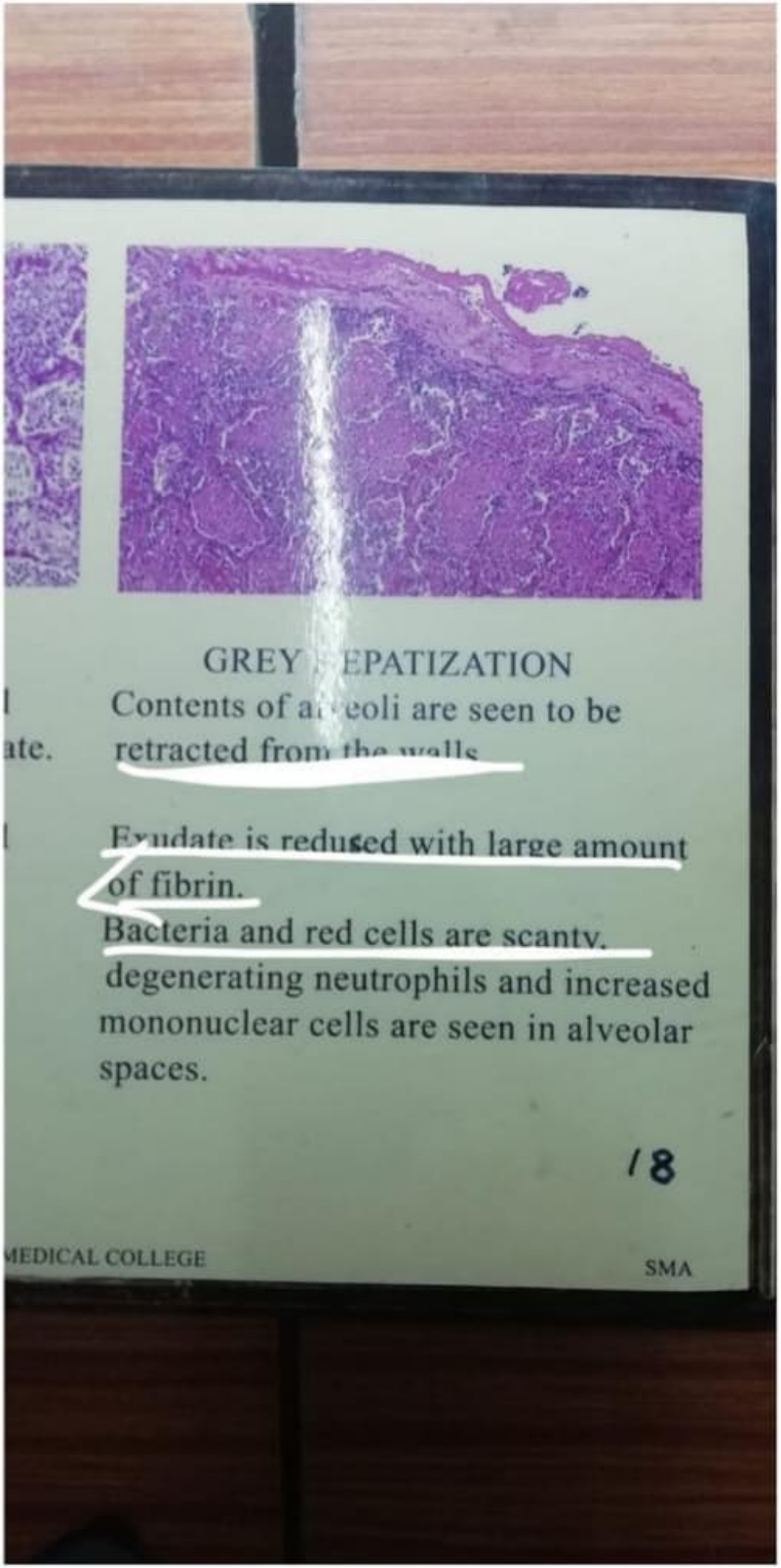
It is made up of variety of cell types derived from more than one germ layer.

Tissues that can be identified are lining epithelium (ectoderm), cartilage(mes[illegible]erm) and thyroid follicles(endoderm).

36

UPGRADED DEPARTMENT OF PATHOLOGY OSMA[illegible]EDICAL CO





GREY [illegible]EPATIZATION

Contents of a[illegible]eoli are seen to be retracted from the walls

ate.

Exudate is redused with large amount of fibrin.

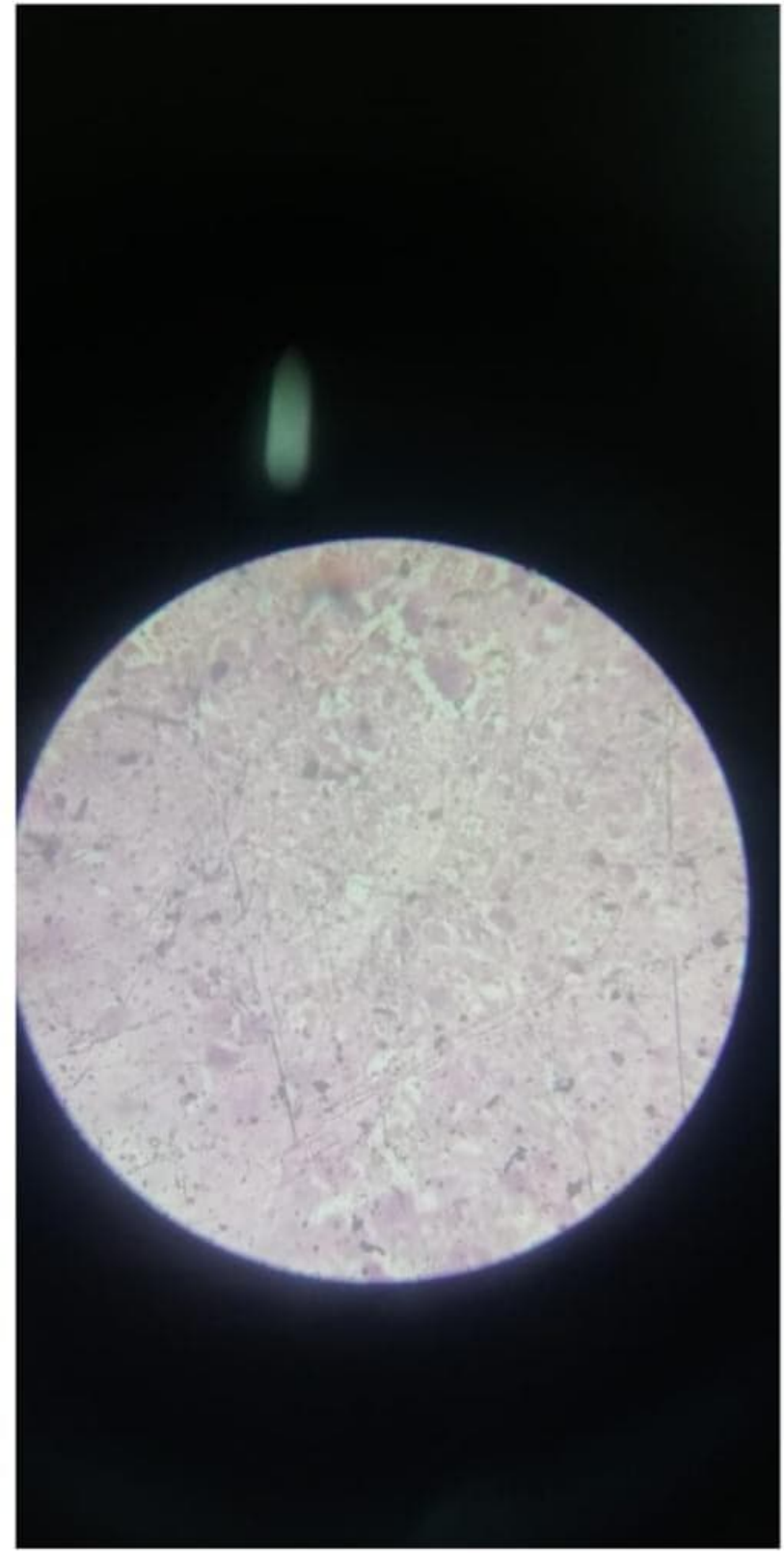
Bacteria and red cells are scanty.

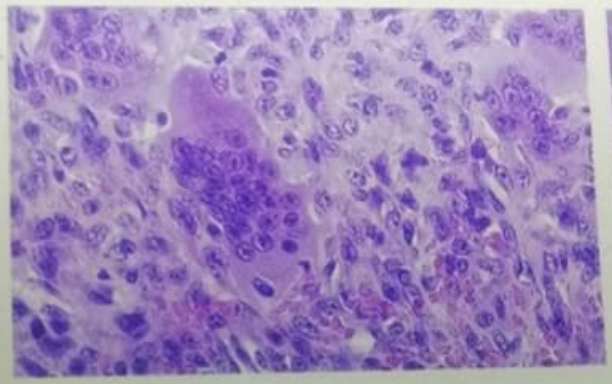
degenerating neutrophils and increased mononuclear cells are seen in alveolar spaces.

18

MEDICAL COLLEGE

SMA





OSTEOCLASTOMA

Histologically large number of multinucleate osteoclastic giant cells are found regularly scattered throughout the stromal mononuclear cells.

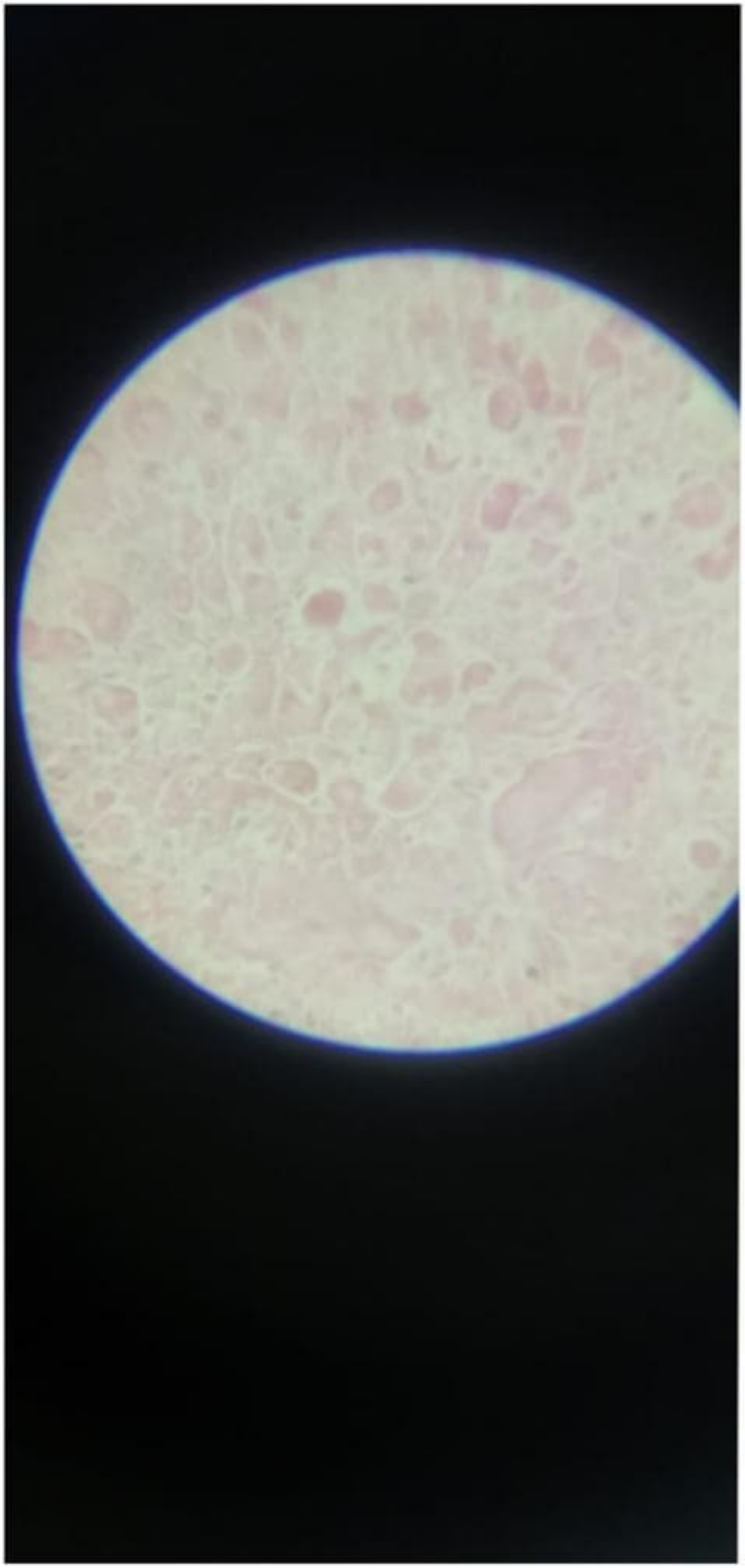
Giant cells contain as many as 100 nuclei.

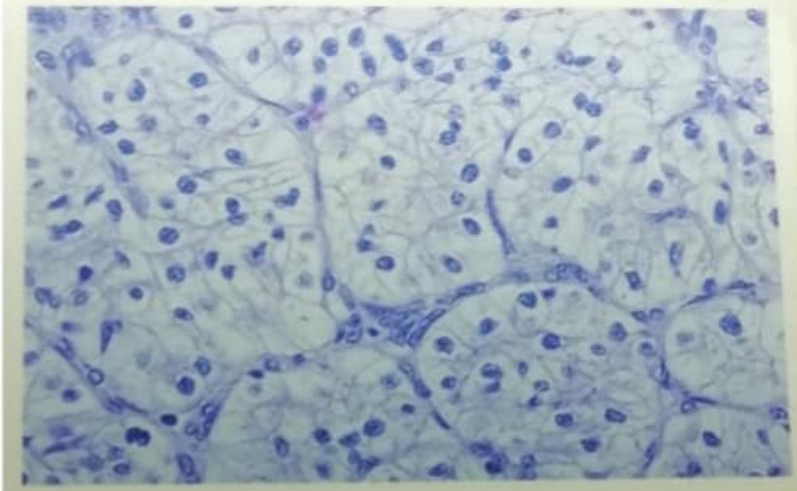
Stromal cells are mononuclear cells which are uniform,plump,spindle shaped cells.

stromal cells are the real tumour cells.

40

UPGRADED DEPARTMENT OF PATHOLOGY OSMANIA MEDICAL COLLEGE





RENAL CELL CARCINOMA - KIDNEY

Variety of patterns are seen in tumour like solid, acinar, trabecular, and papillary.

Tumour cells may be :

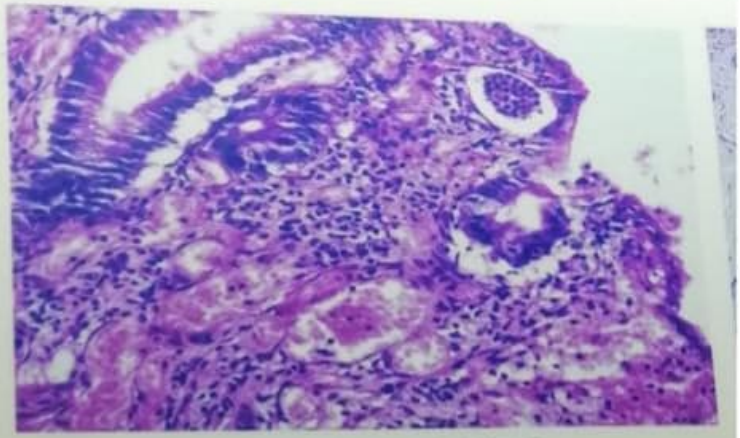
Clear cells : Cells are round to polygonal with abundent clear cytoplasm rich in glycogen and lipid and having regular small pyknotic nucleus.

Granular cells : Have moderate amount of pink granular cytoplasm.

35

SMA

EGE

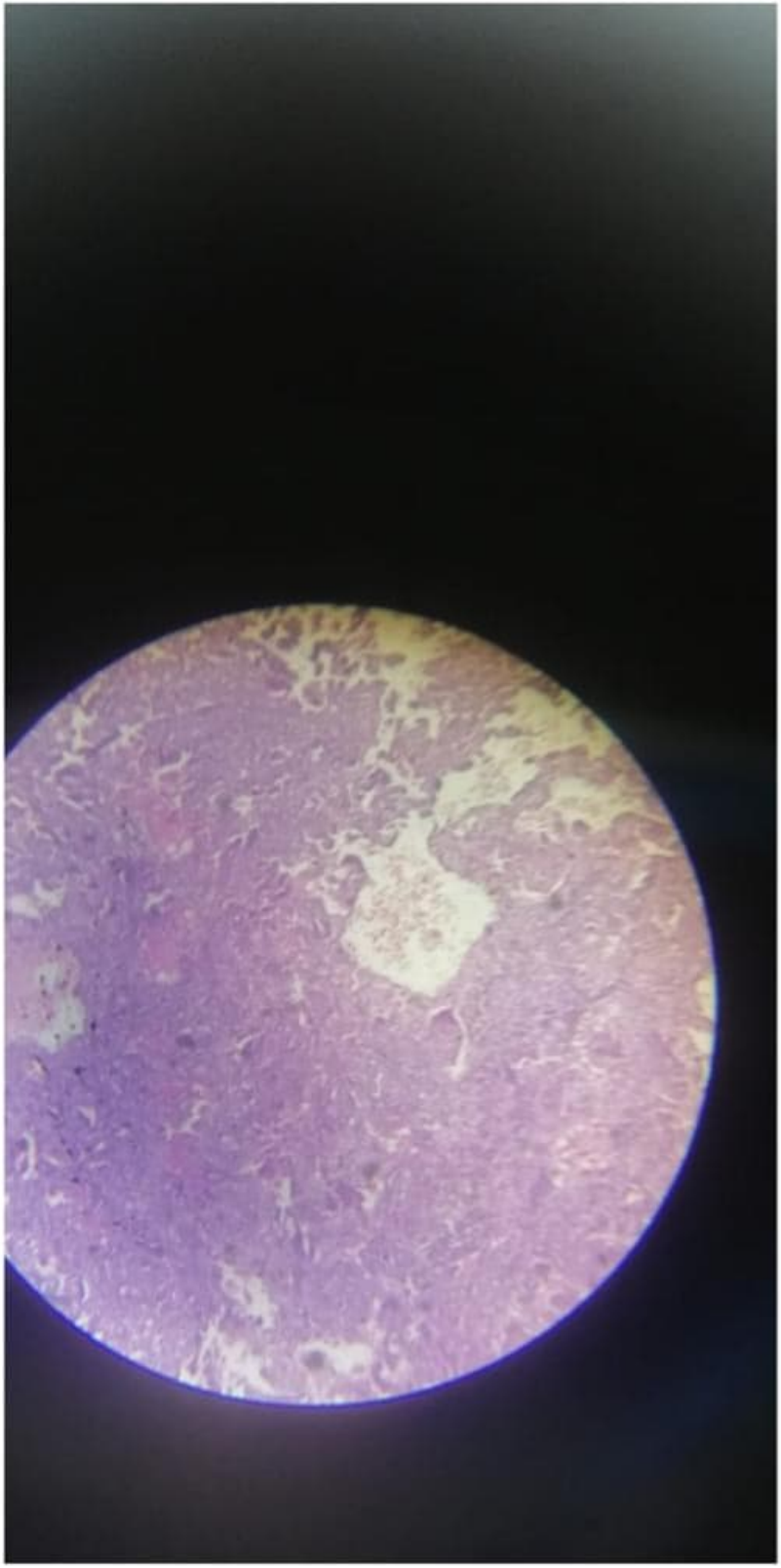


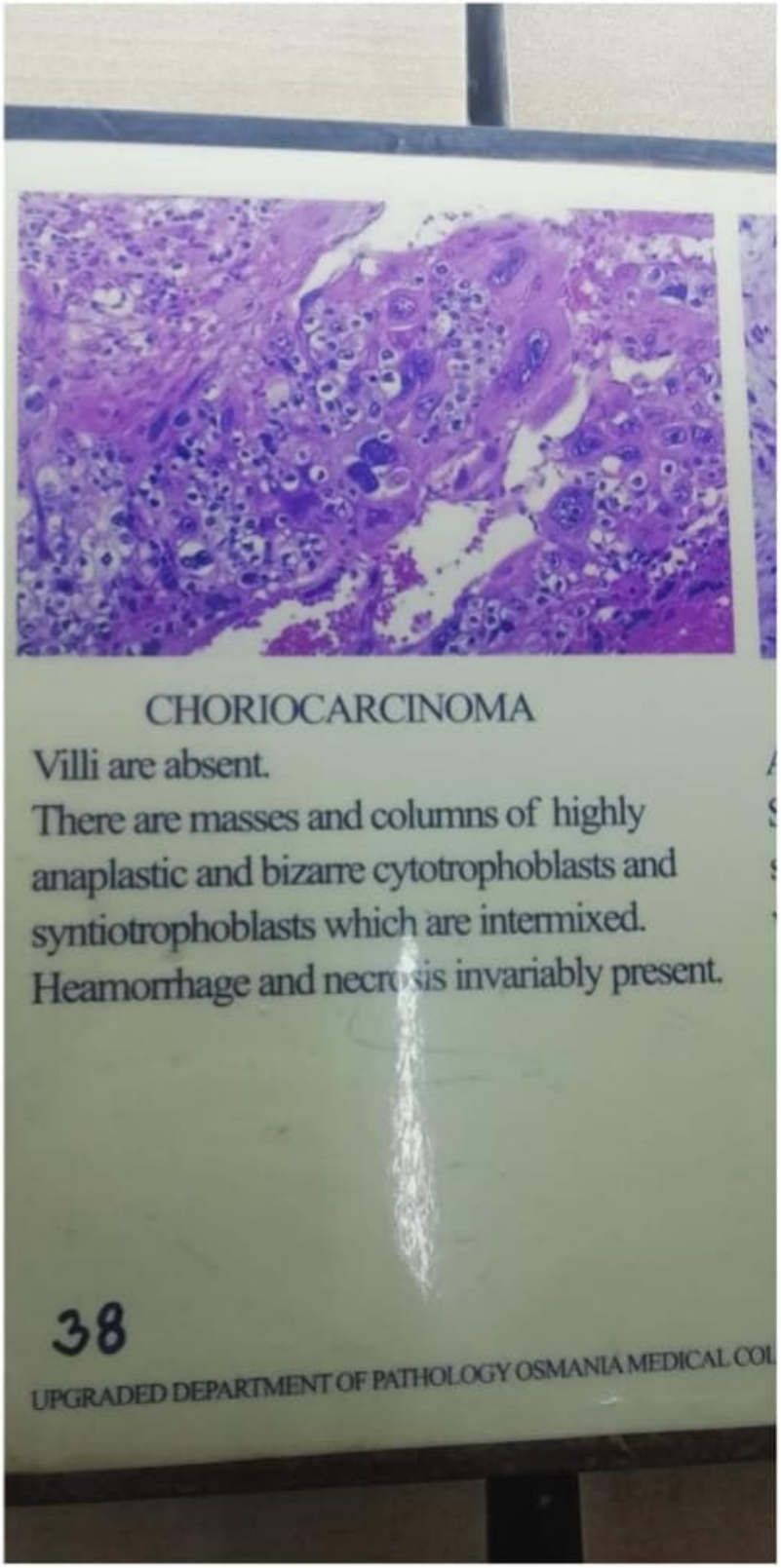
ACUTE APPENDICITIS

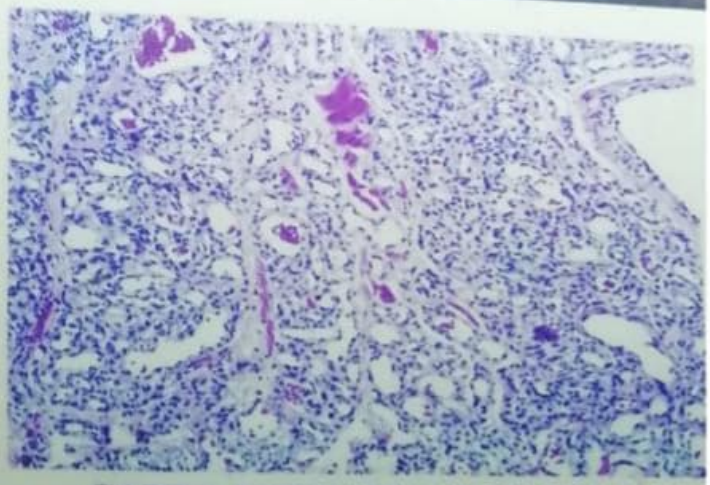
Mucosa is hyperemic, ulcerated and necrotic.
All layer of the appendix especially the muscularis propria show congestion, edema and dense neutrophilic infiltration.
Dilated and congested blood vessels are seen subseroslly,

7

UPGRADED DEPARTMENT OF PATHOLOGY OSMANIA MEDICAL




CHORIOCARCINOMA
Villi are absent.
There are masses and columns of highly anaplastic and bizarre cytotrophoblasts and syntiotrophoblasts which are intermixed.
Heamorrhage and necrosis invariably present.
38
UPGRADED DEPARTMENT OF PATHOLOGY OSMANIA MEDICAL COL



CAPILLARY HAEMANGIOMA

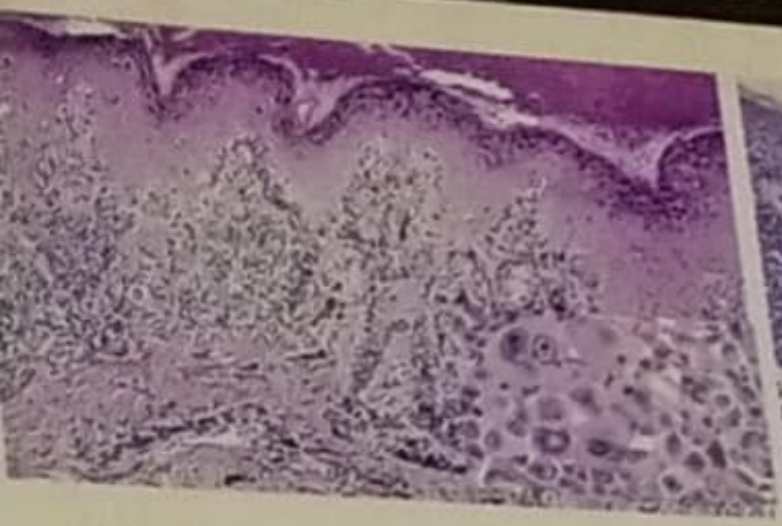
Benign neoplasm of blood vessels.

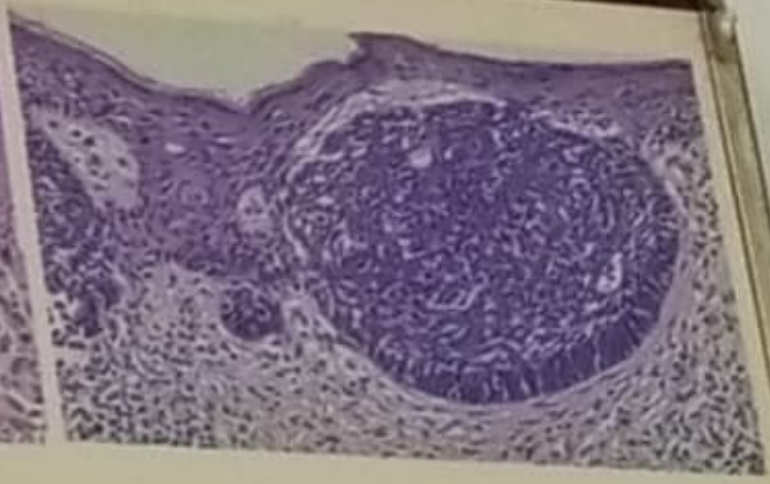
Dermis shows narrow capillary like vascular slits lined by regular or hyperchromatic endothelial cells seperated by connective tissue .

Lumen may be partially or completely thrombosed and organised .

5

UPGRADED DEPARTMENT OF PATHOLOGY OSMANIA MEDICAL





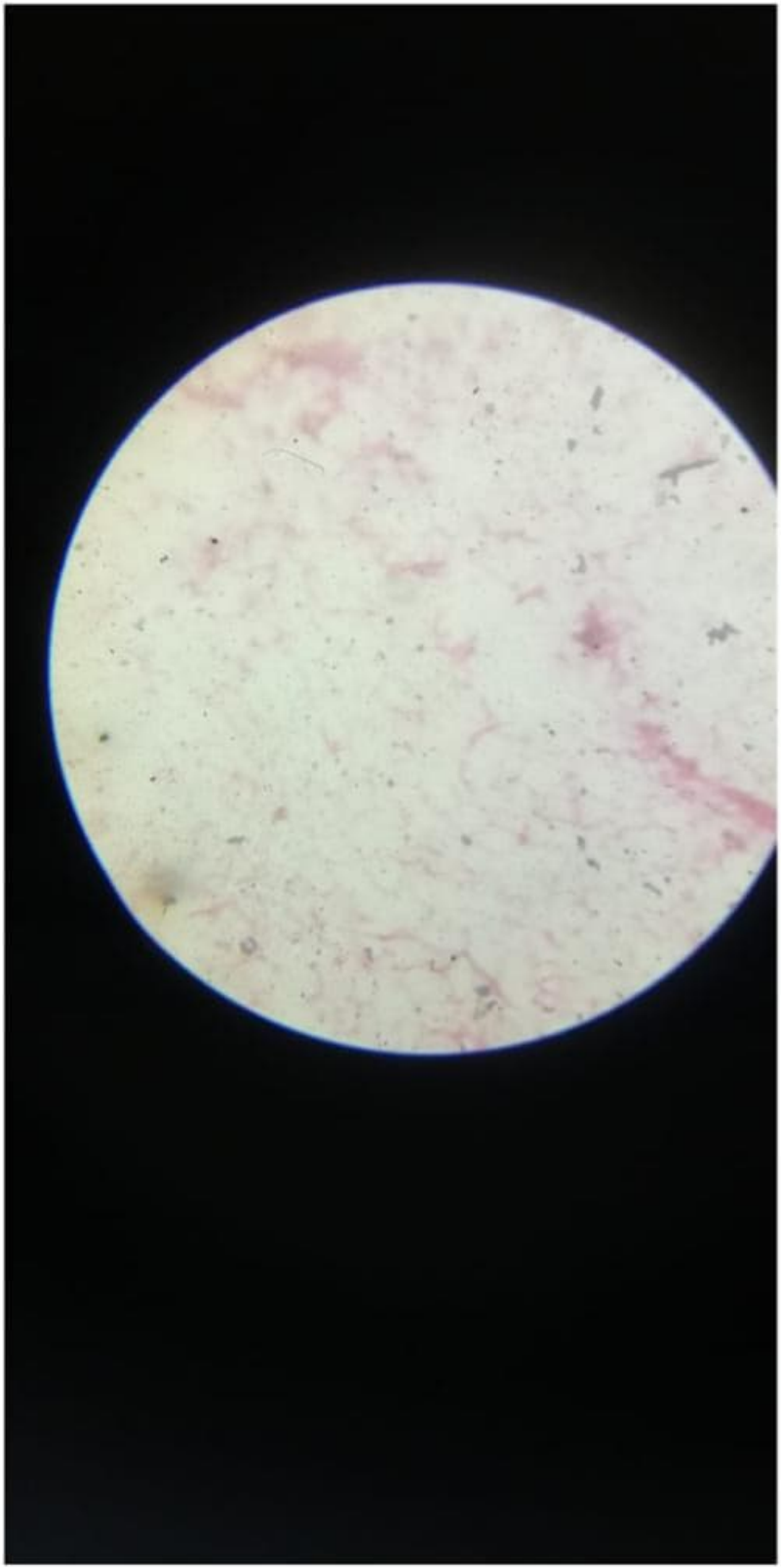
MALIGNANT MELANOMA

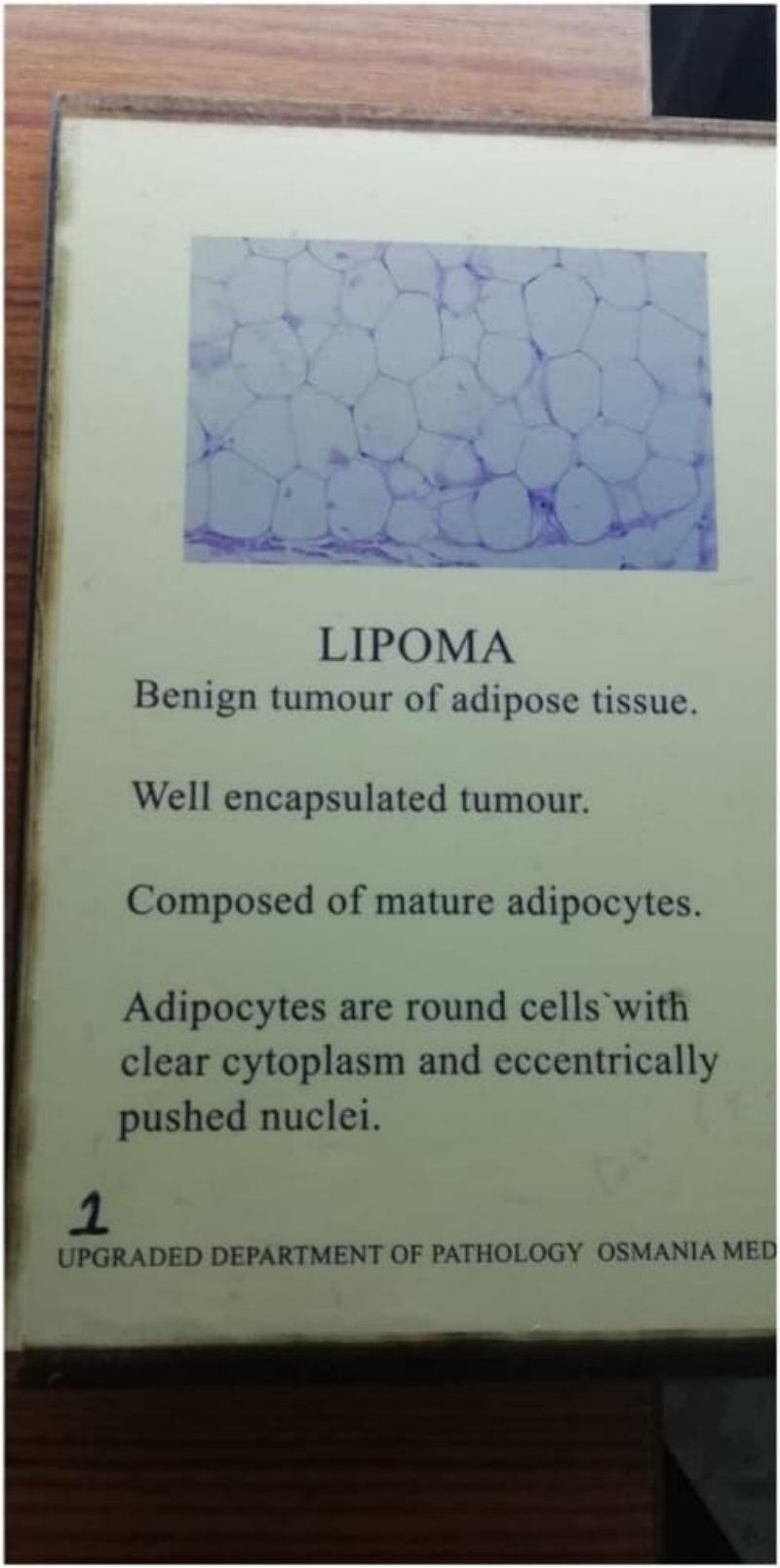
Shows epidermis and dermis.
Dermis shows nodular aggregates of tumour cells.
Melanoma cells are larger than naevus cells. nucleus is large with irrregular contours and contains prominent eosinophilic nucleoli.
Melanin pigment is present in cells in form of uniform granules can be demonstrated by Fontana-Masson stain/DOPA reaction. 27

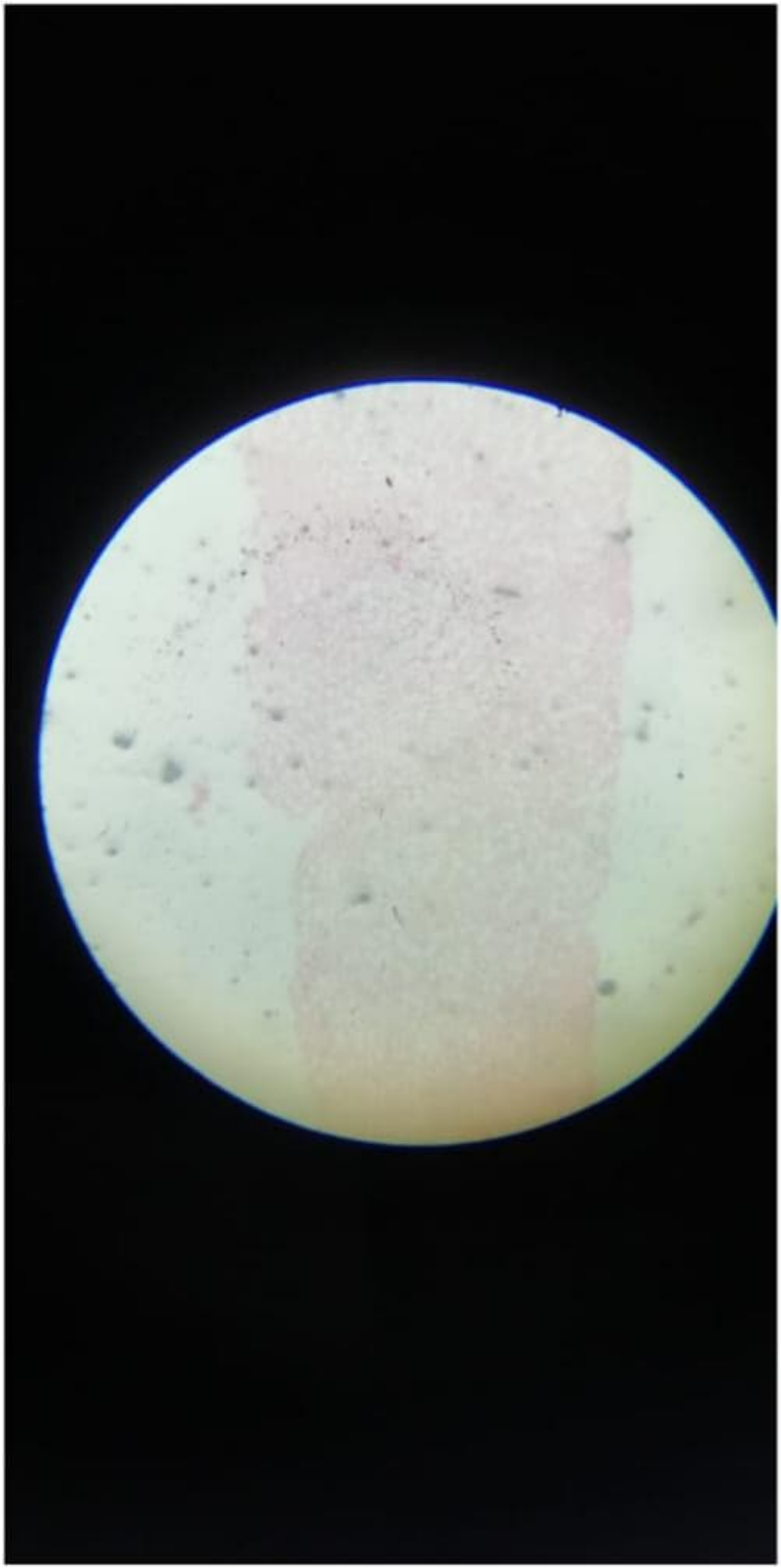
BASAL CELL CARCINOMA

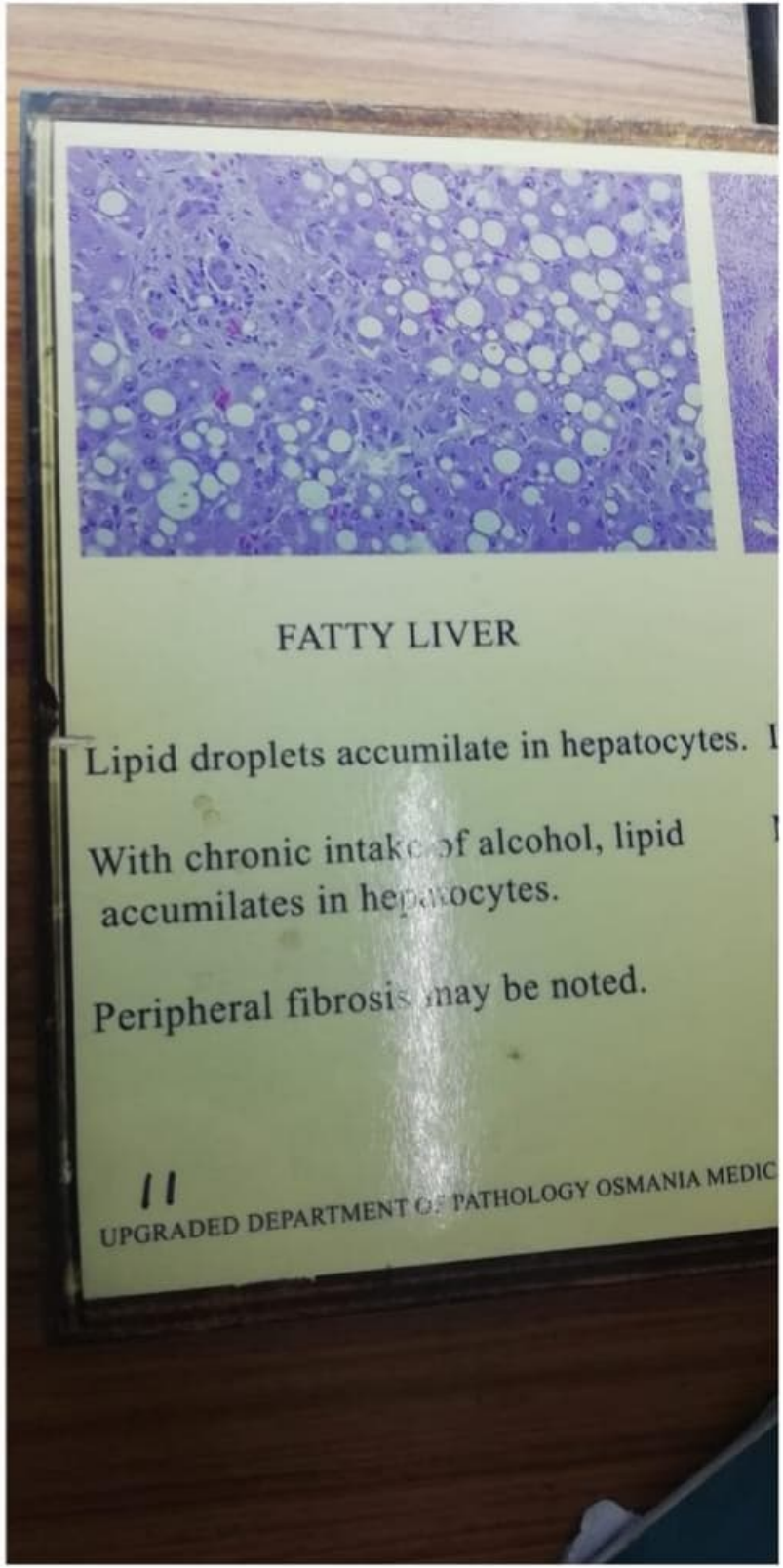
Tumour cells resemble those in normal basal cell layer of epidermis.
Dermis has islands of basophilic cells with hyperchromatic nuclei surrounded by fibrroblasts and lymphocytes.
Cells forming periphery of tumour are are arranged radially with their long axis in parallel alignment(pallisading)

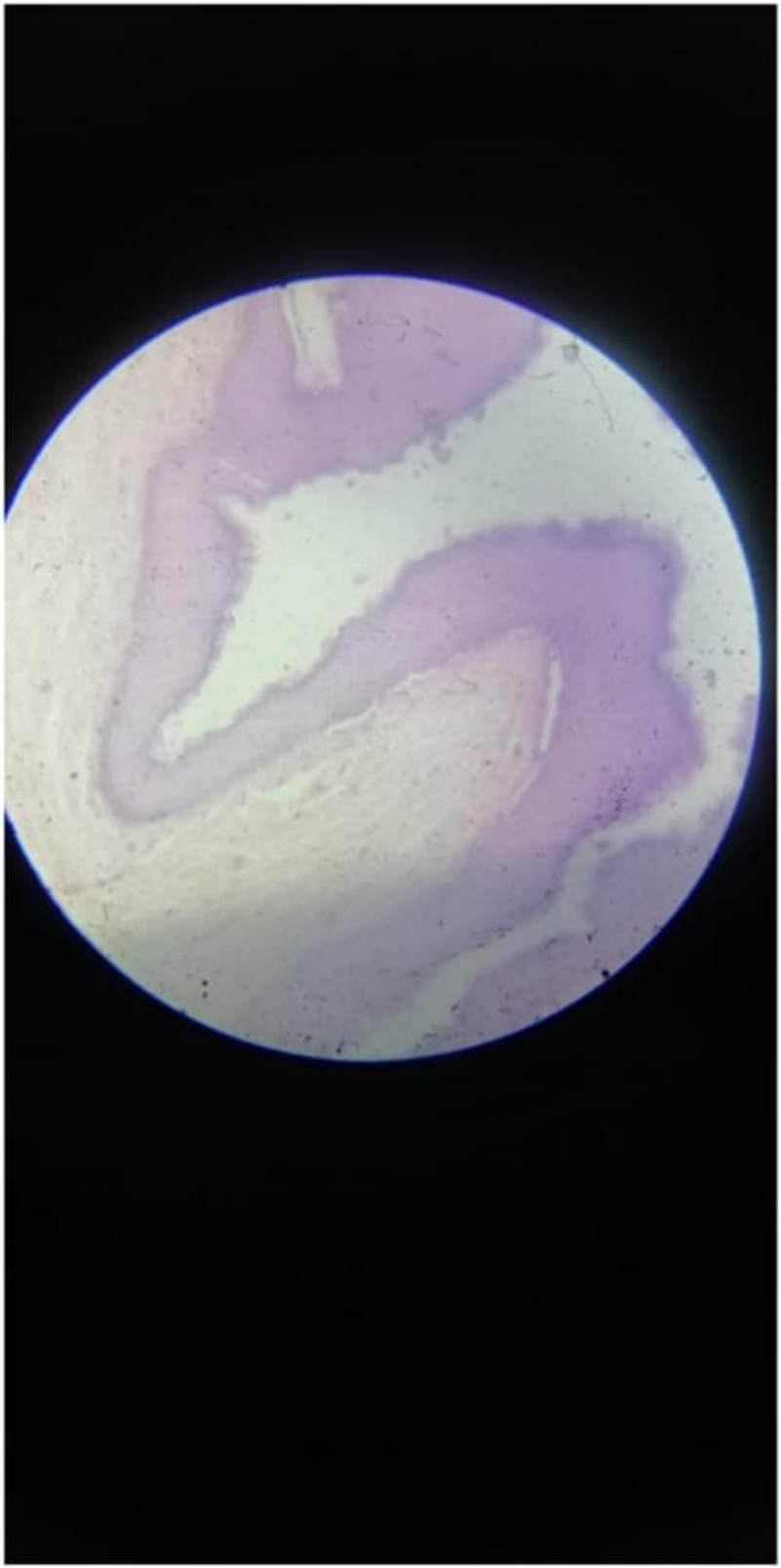
26

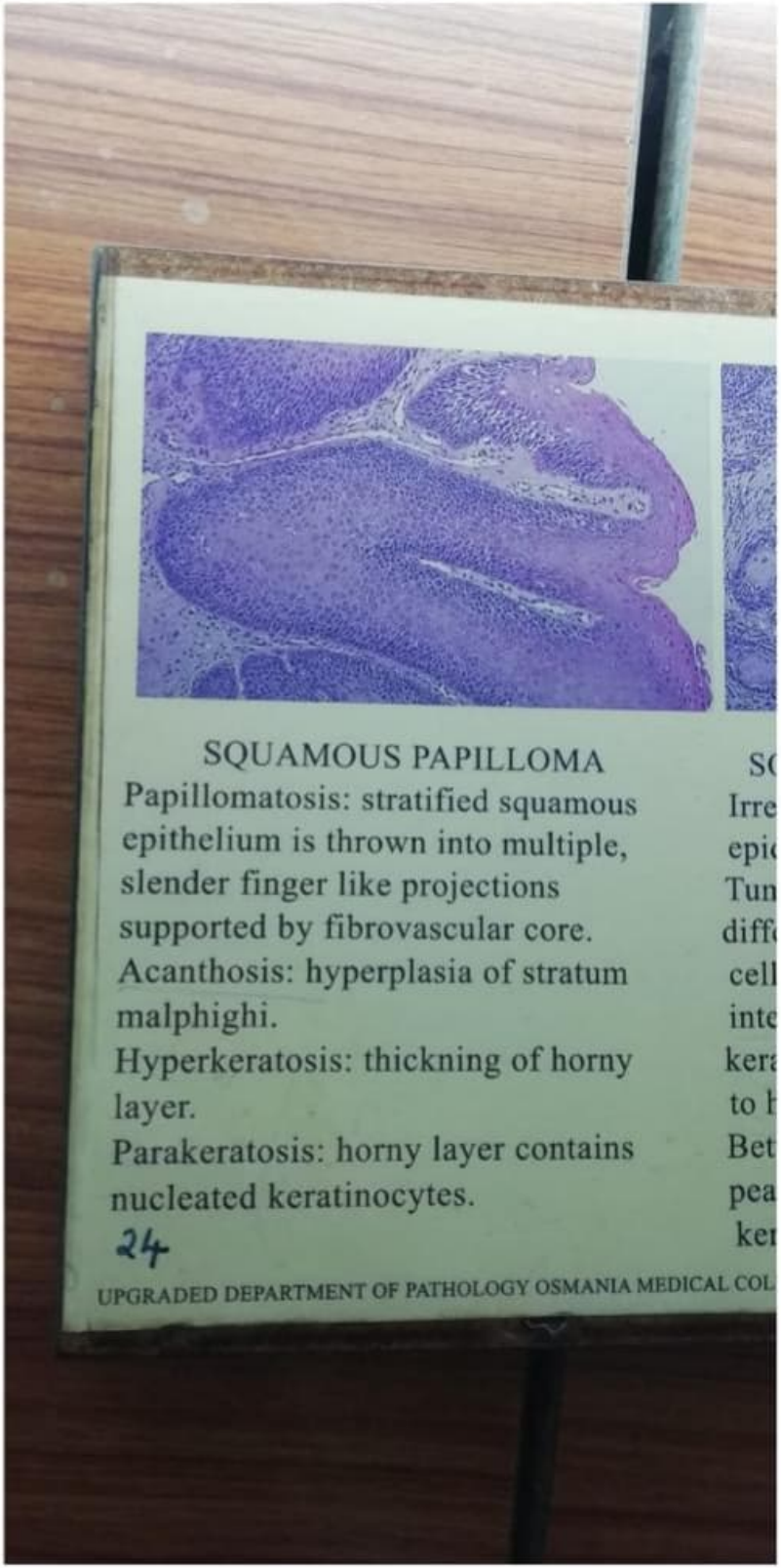


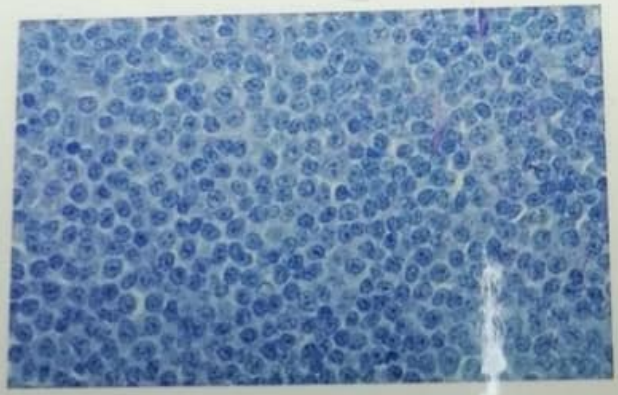

LIPOMA
Benign tumour of adipose tissue.
Well encapsulated tumour.
Composed of mature adipocytes.
Adipocytes are round cells with clear cytoplasm and eccentrically pushed nuclei.
1
UPGRADED DEPARTMENT OF PATHOLOGY OSMANIA MED




FATTY LIVER
Lipid droplets accumilate in hepatocytes.
With chronic intake of alcohol, lipid accumilates in hepatocytes.
Peripheral fibrosis may be noted.
11
UPGRADED DEPARTMENT OF PATHOLOGY OSMANIA MEDIC




SQUAMOUS PAPILLOMA
Papillomatosis: stratified squamous epithelium is thrown into multiple, slender finger like projections supported by fibrovascular core.
Acanthosis: hyperplasia of stratum malphighi.
Hyperkeratosis: thickning of horny layer.
Parakeratosis: horny layer contains nucleated keratinocytes.
24
UPGRADED DEPARTMENT OF PATHOLOGY OSMANIA MEDICAL COL



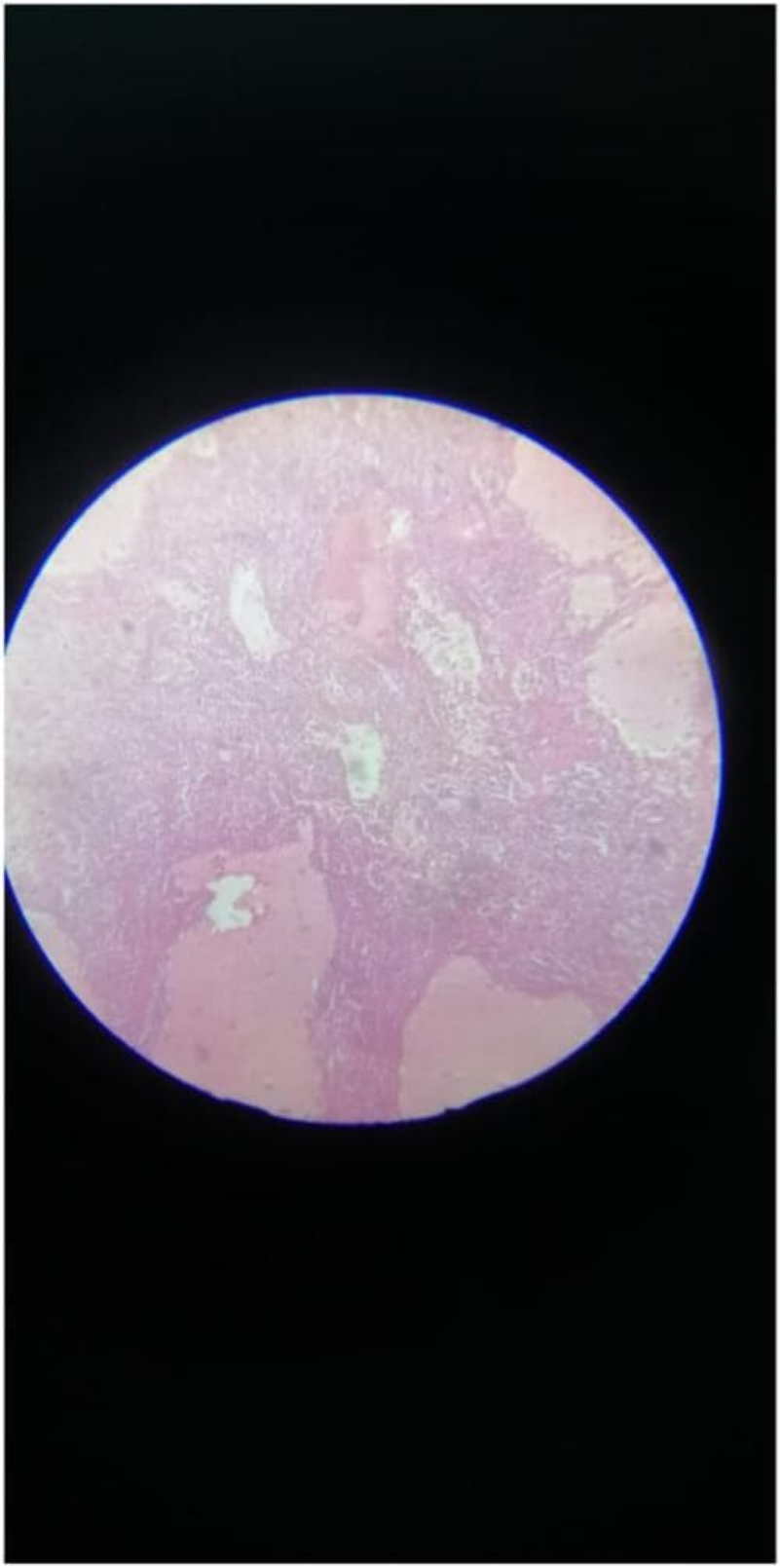
NON-HODGKIN'S LYMPHOMA

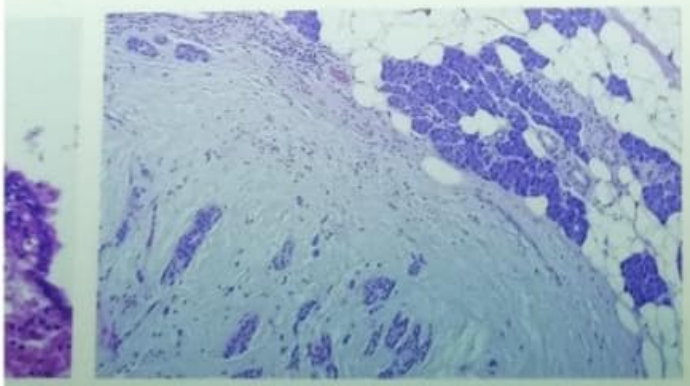
Lymph node architecture is lost

Monotonous cell population showing sheets of small lymphocytes with round nuclei and dense chromatin

20

NIA MEDICAL COLLEGE, HYDERABAD





PLEOMORPHIC ADENOMA

Dominent histologic feature is the great hetrogenity.

Epithelial elements are disposed in duct formation acini ,irregular tubules, strands or sheets of cells.

Epithelial elements are dispersed within a mesenchyme like background of loose myxoid tissue containing islands of chondroid or rarely foci of bone.

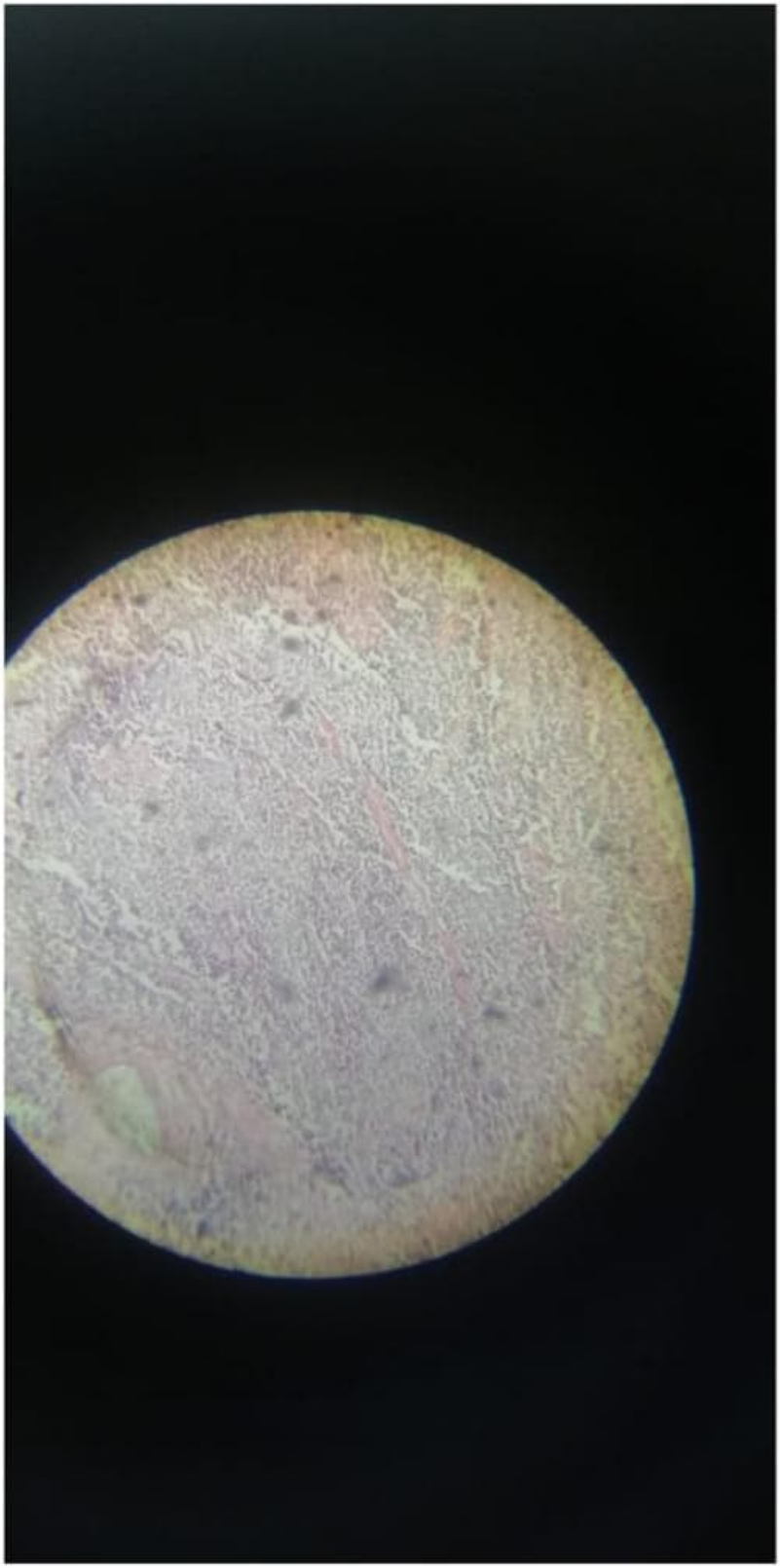
Myoepithelial cells and islands of well differentiated squamous epithelium may occur.

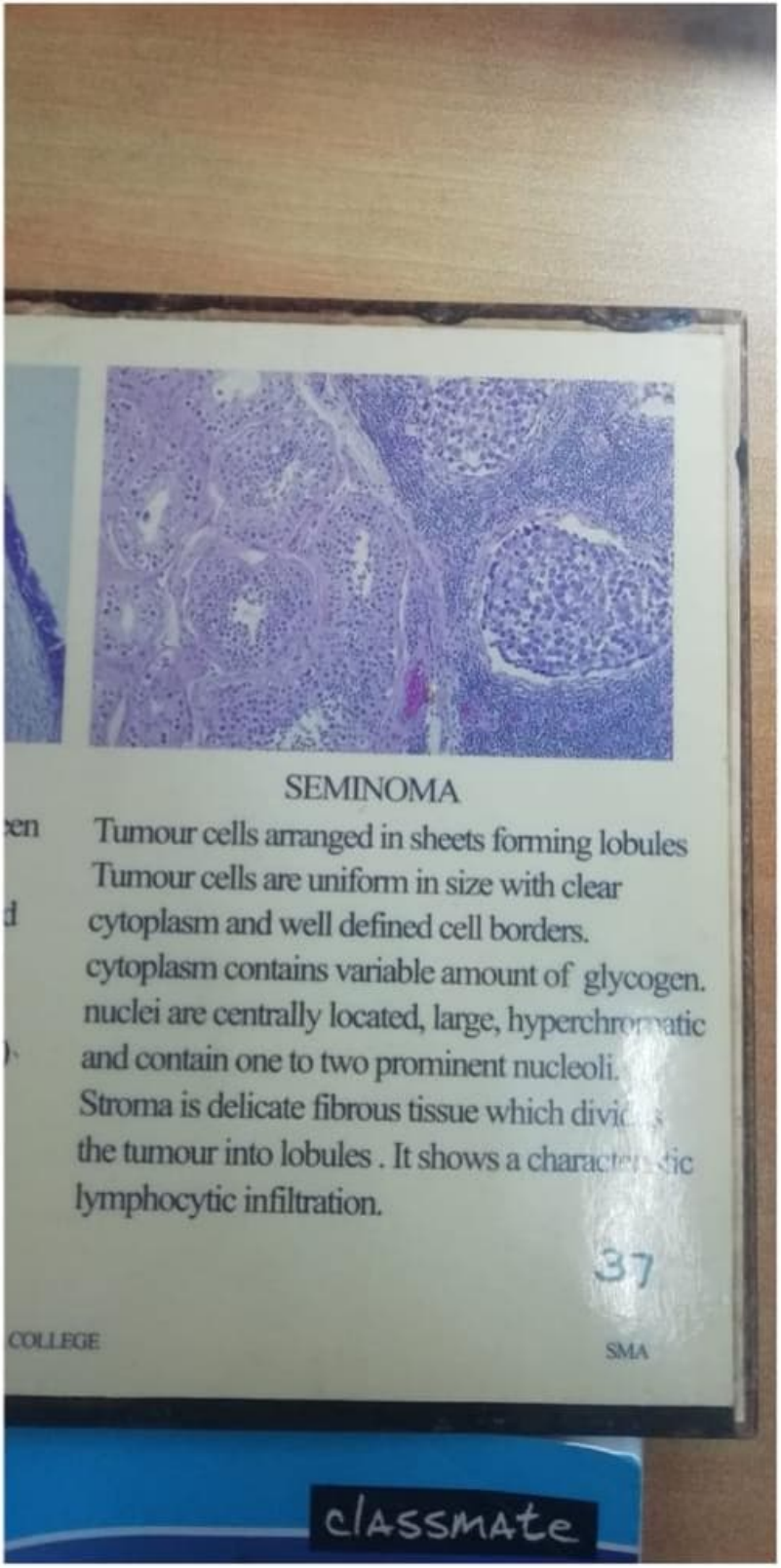
No epithelial dysplasia or mitotic activity.

8

COLLEGE

SMA





SEMINOMA

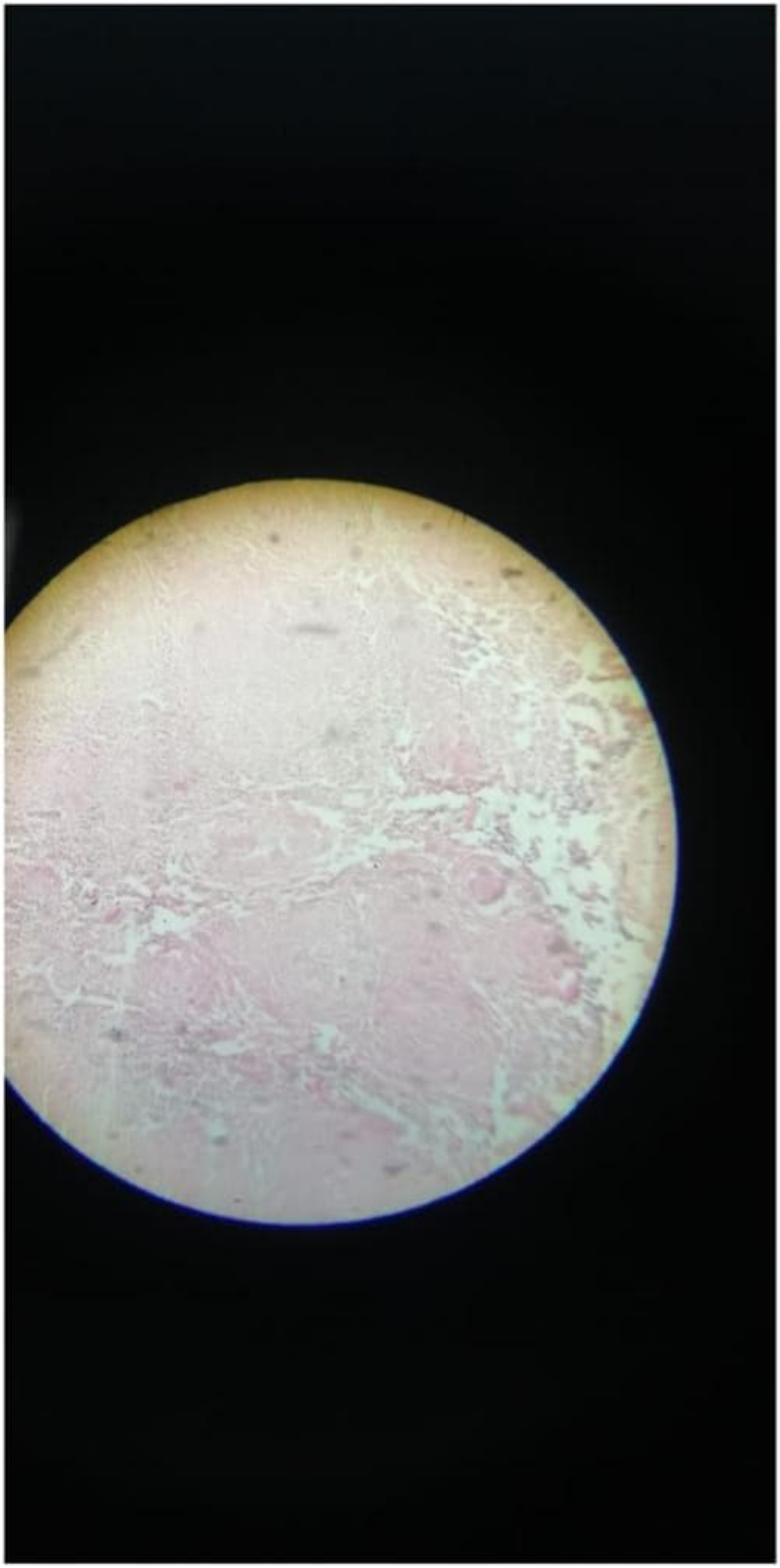
Tumour cells arranged in sheets forming lobules
Tumour cells are uniform in size with clear cytoplasm and well defined cell borders.
cytoplasm contains variable amount of glycogen.
nuclei are centrally located, large, hyperchromatic and contain one to two prominent nucleoli.
Stroma is delicate fibrous tissue which divides the tumour into lobules . It shows a characteristic lymphocytic infiltration.

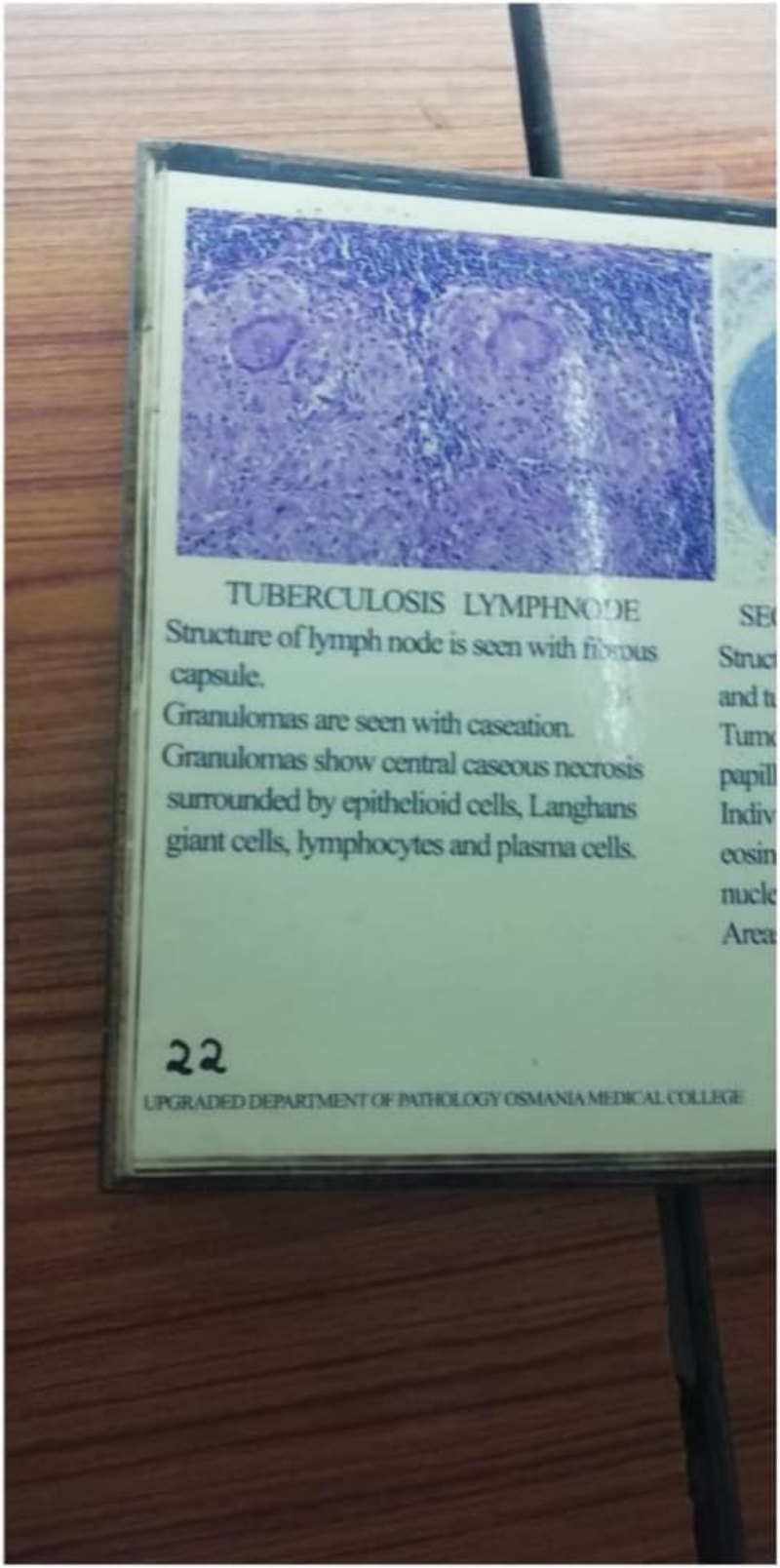
37

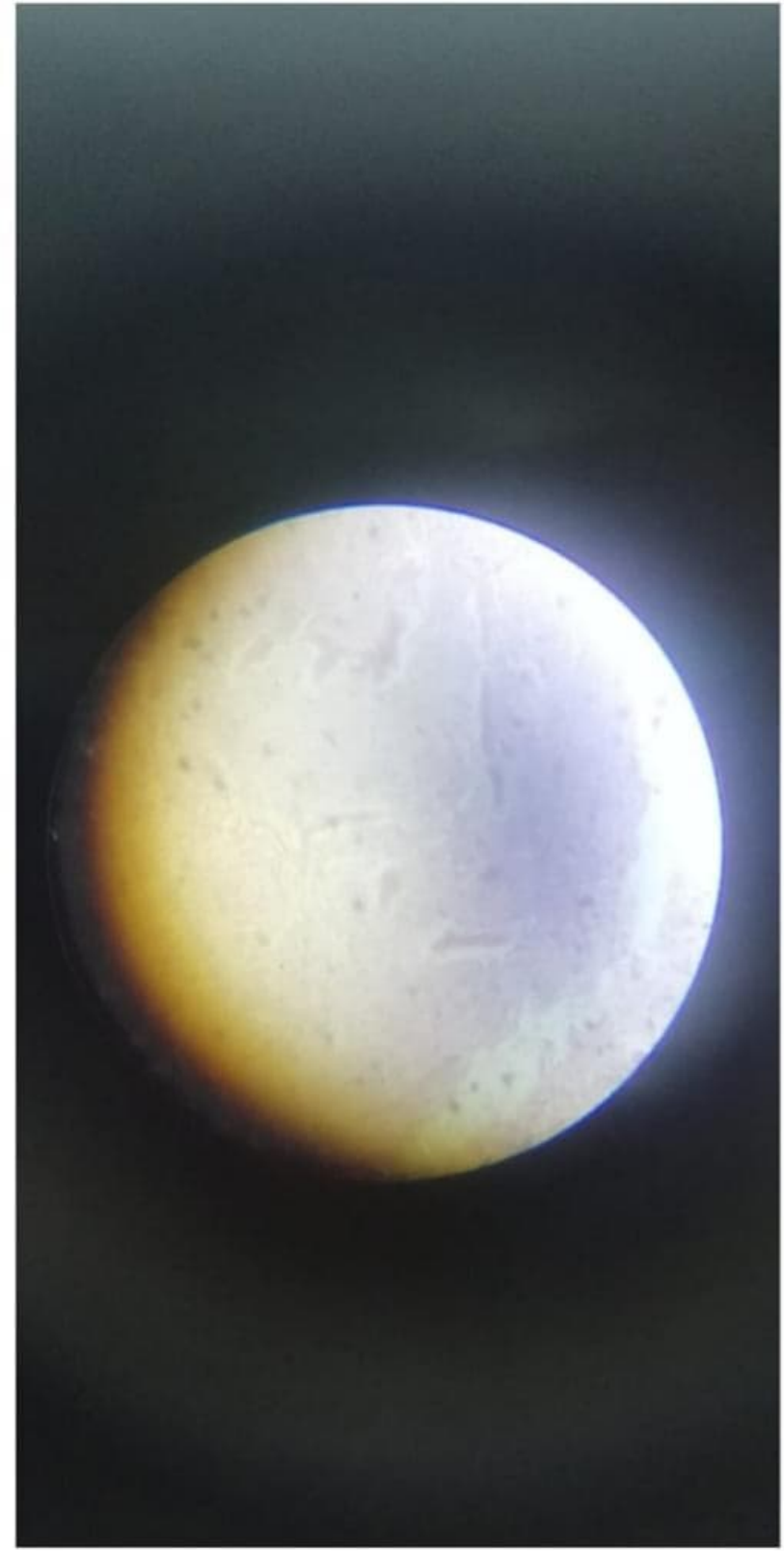
COLLEGE

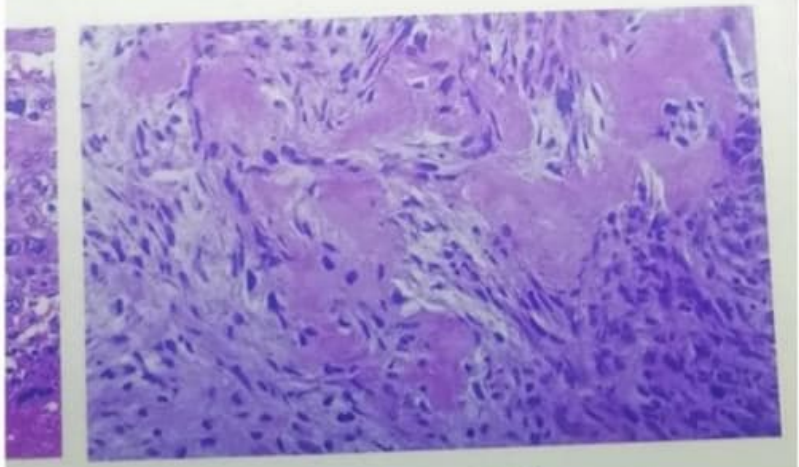
SMA

classmate




TUBERCULOSIS LYMPHNODE
Structure of lymph node is seen with fibrous capsule.
Granulomas are seen with caseation.
Granulomas show central caseous necrosis surrounded by epithelioid cells, Langhans giant cells, lymphocytes and plasma cells.
22
UPGRADED DEPARTMENT OF PATHOLOGY OSMANIA MEDICAL COLLEGE





OSTEOSARCOMA

All osteosarcomas have two features:

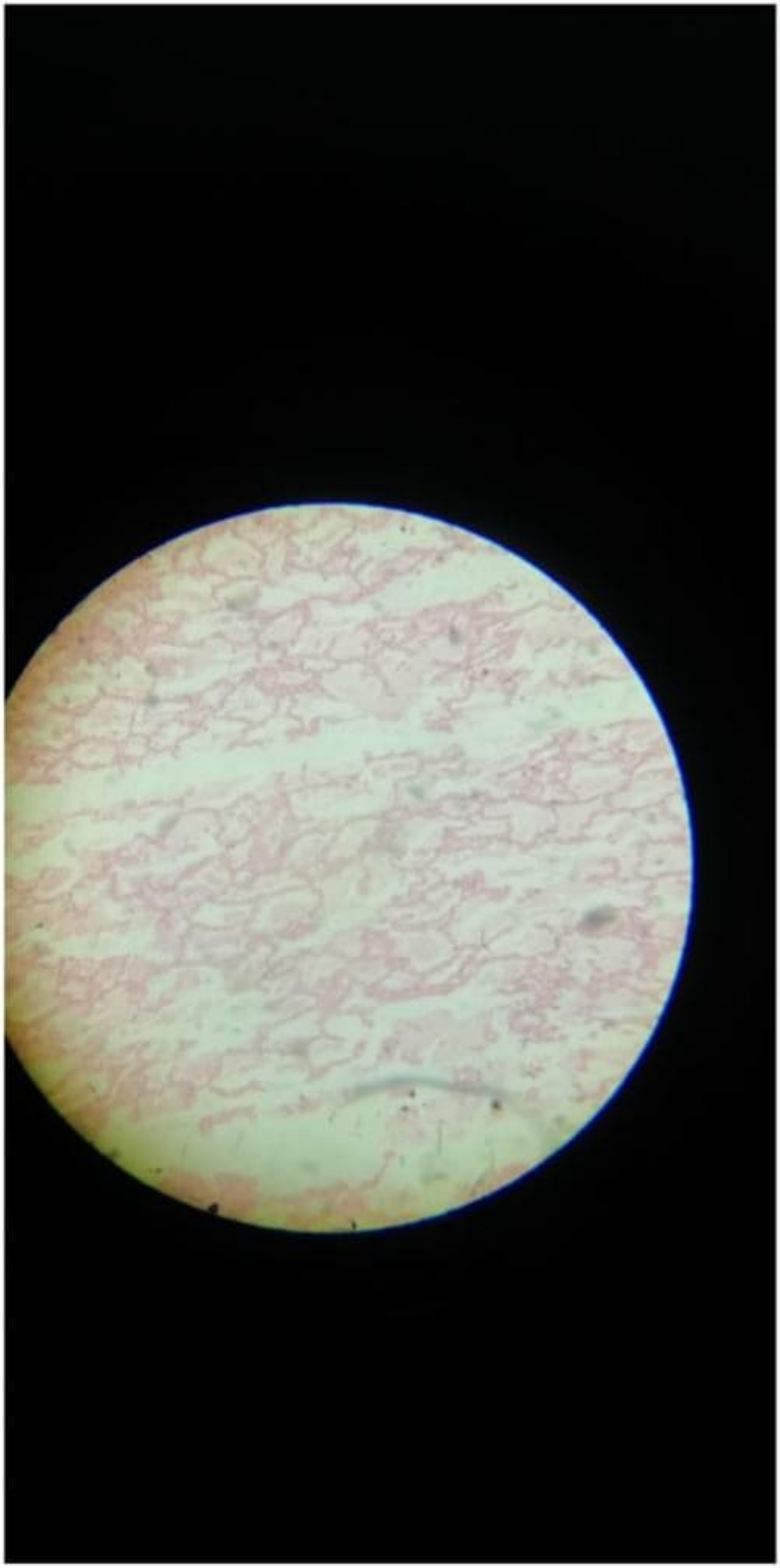
Sarcoma cells : Are undifferentiated mesenchymal stromal cells , shows marked pleaomorphism with hyperchromatic nuclei. bizarre tumour giant cells may be seen.

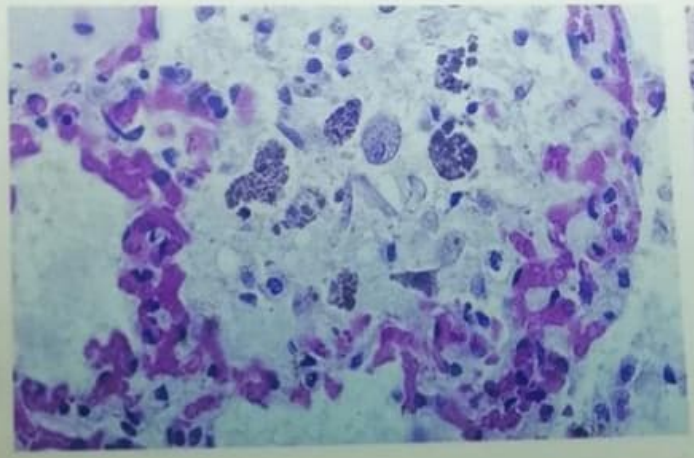
Osteogenesis : Sarcoma cells form osteoid matrix which are formed interspersed in the areas of tumour cells.

39

AL COLLEGE

SMA





CVC: LUNG

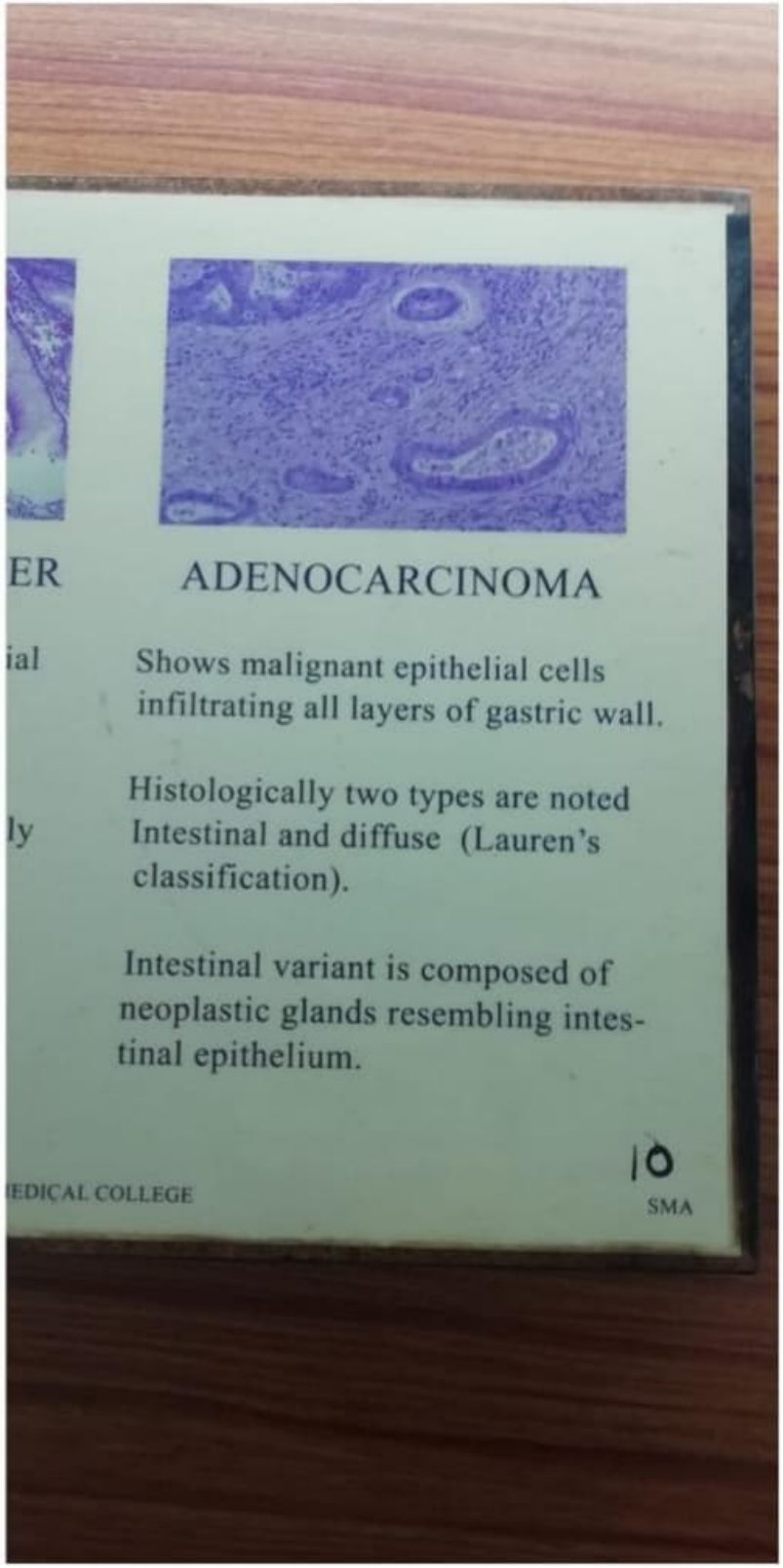
Alveolar capillaries are engroged with blood.

Alveolar septa are thickened and fibrotic.

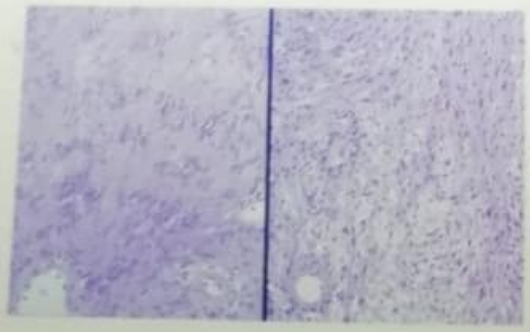
Alveolar spaces contains numerous heart failure cells (hemosiderin laden macrophages).

13

UPGRADED DEPARTMENT OF PATHOLOGY OSMANIA MEDI


ER
ial
ly
ADENOCARCINOMA
Shows malignant epithelial cells infiltrating all layers of gastric wall.
Histologically two types are noted Intestinal and diffuse (Lauren's classification).
Intestinal variant is composed of neoplastic glands resembling intestinal epithelium.
EDICAL COLLEGE
10
SMA

Cavernous hemangioma



SCHWANNOMA

s. Benign tumor of schwann cells.

lls. Antoni A areas(Verocay bodies)

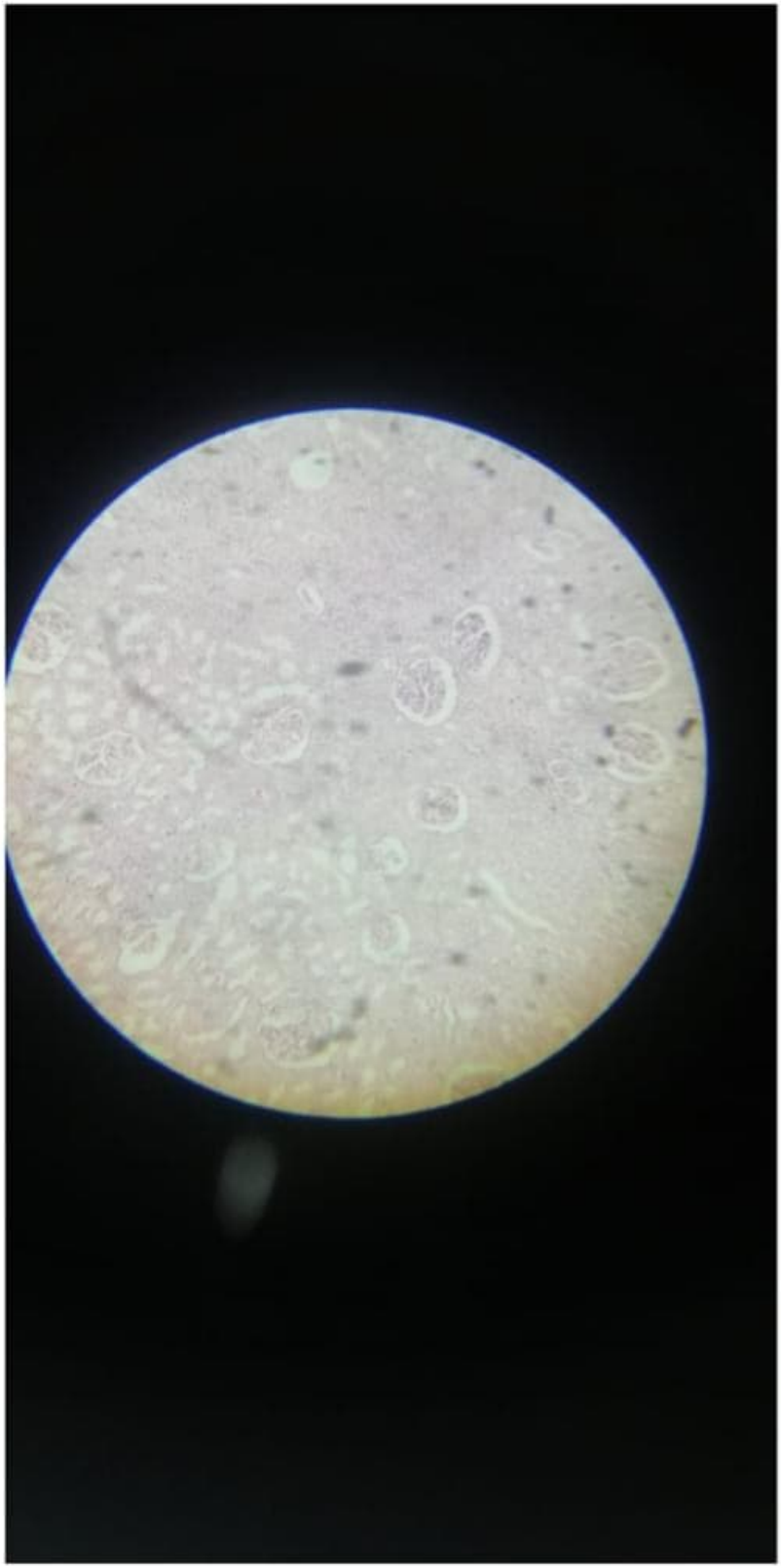
ed are cellular areas consists of sheets of spindle cells with palisaded nuclei.

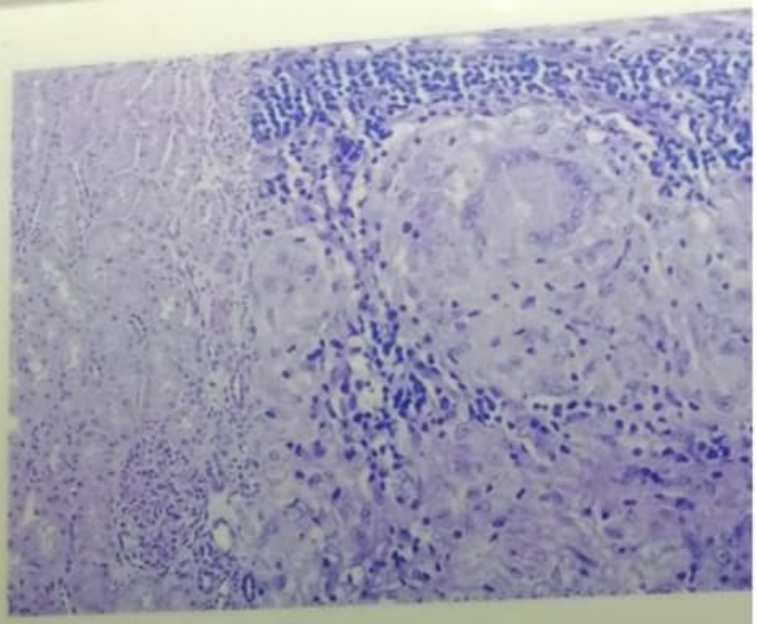
Antoni B areas consists of myxoid loose degenerative areas.

3

CAL COLLEGE

SMA





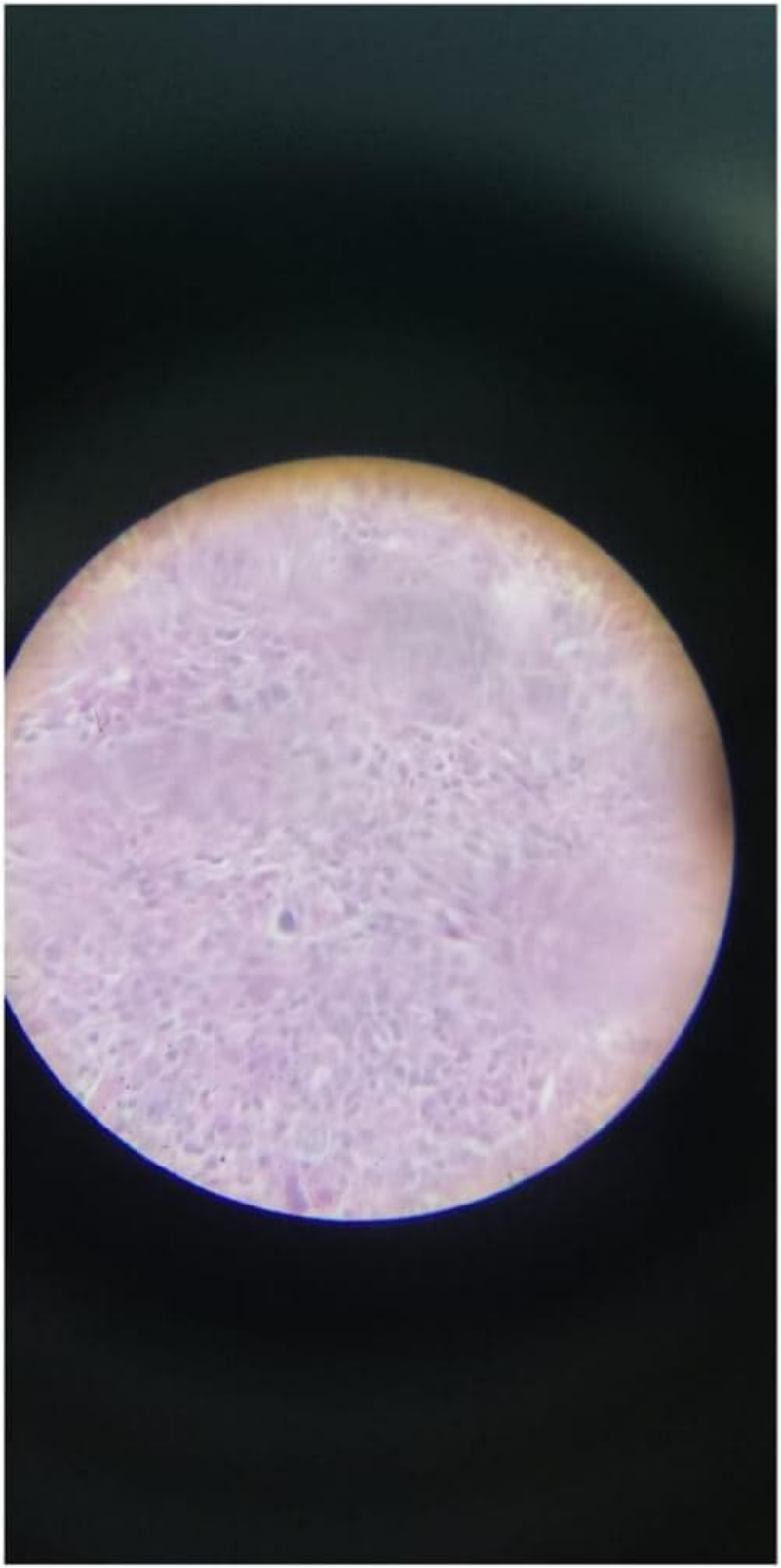
TUBERCULOSIS - KIDNEY

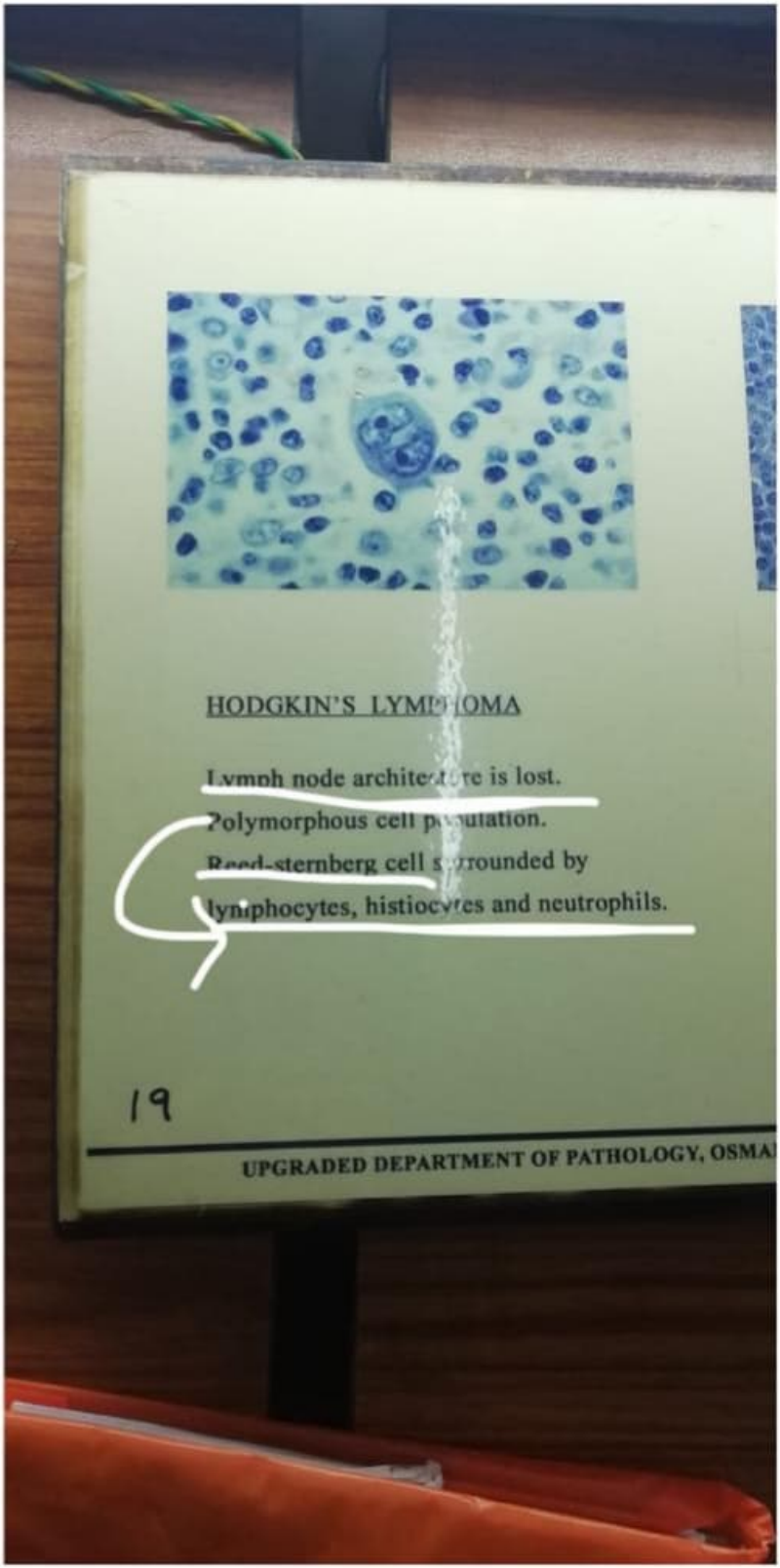
Native tissue of kidney is identified by tubules and glomeruli.

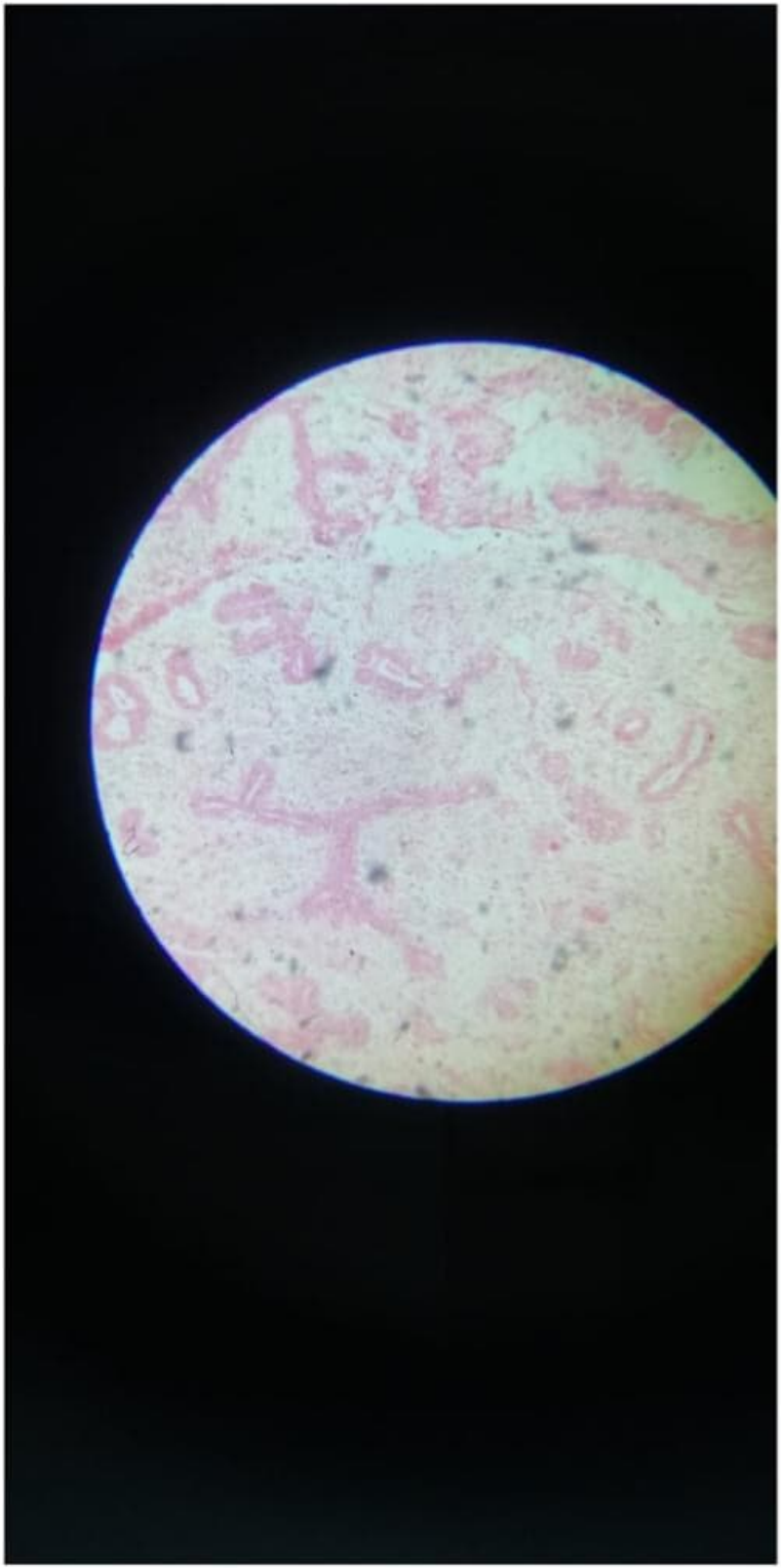
Granulomas are seen, composed of epithelioid cells, Lanhans giant cells, lymphocytes and plasma cells.

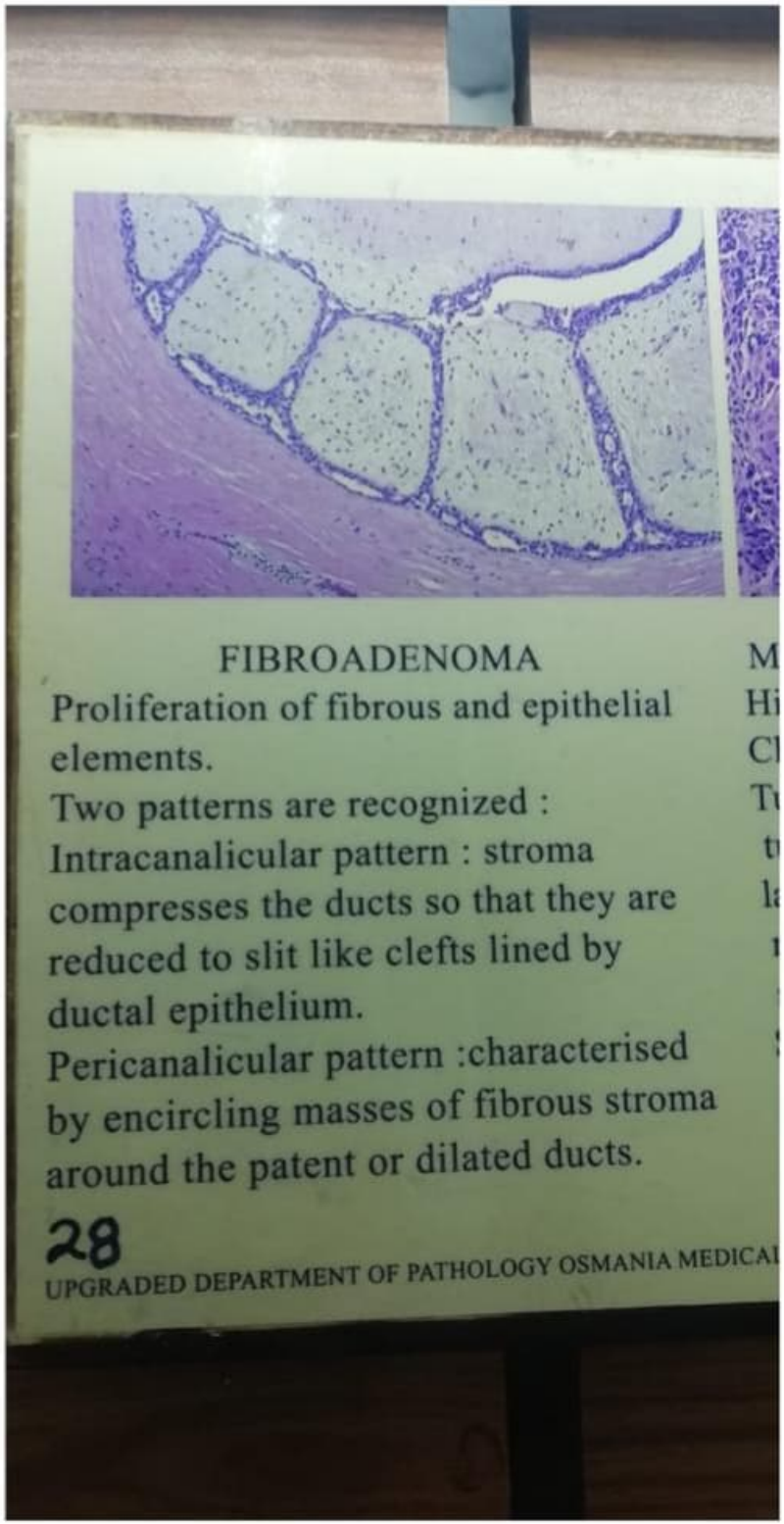
fibroblasts are seen at periphery.

34




HODGKIN'S LYMPHOMA
Lymph node architecture is lost.
Polymorphous cell population.
Reed-sternberg cell surrounded by
lymphocytes, histiocytes and neutrophils.
19
UPGRADED DEPARTMENT OF PATHOLOGY, OSMA





FIBROADENOMA

Proliferation of fibrous and epithelial elements.

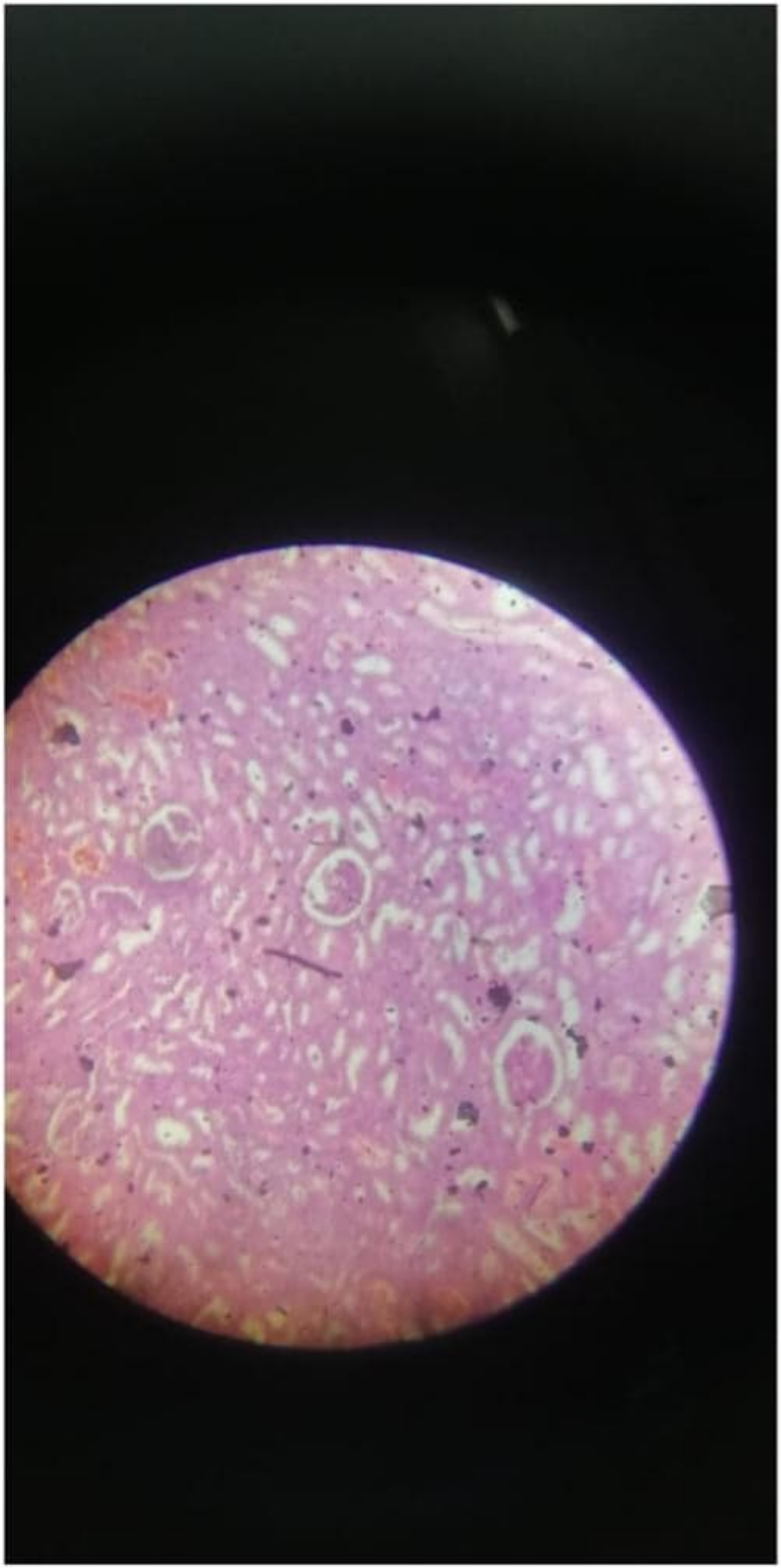
Two patterns are recognized :

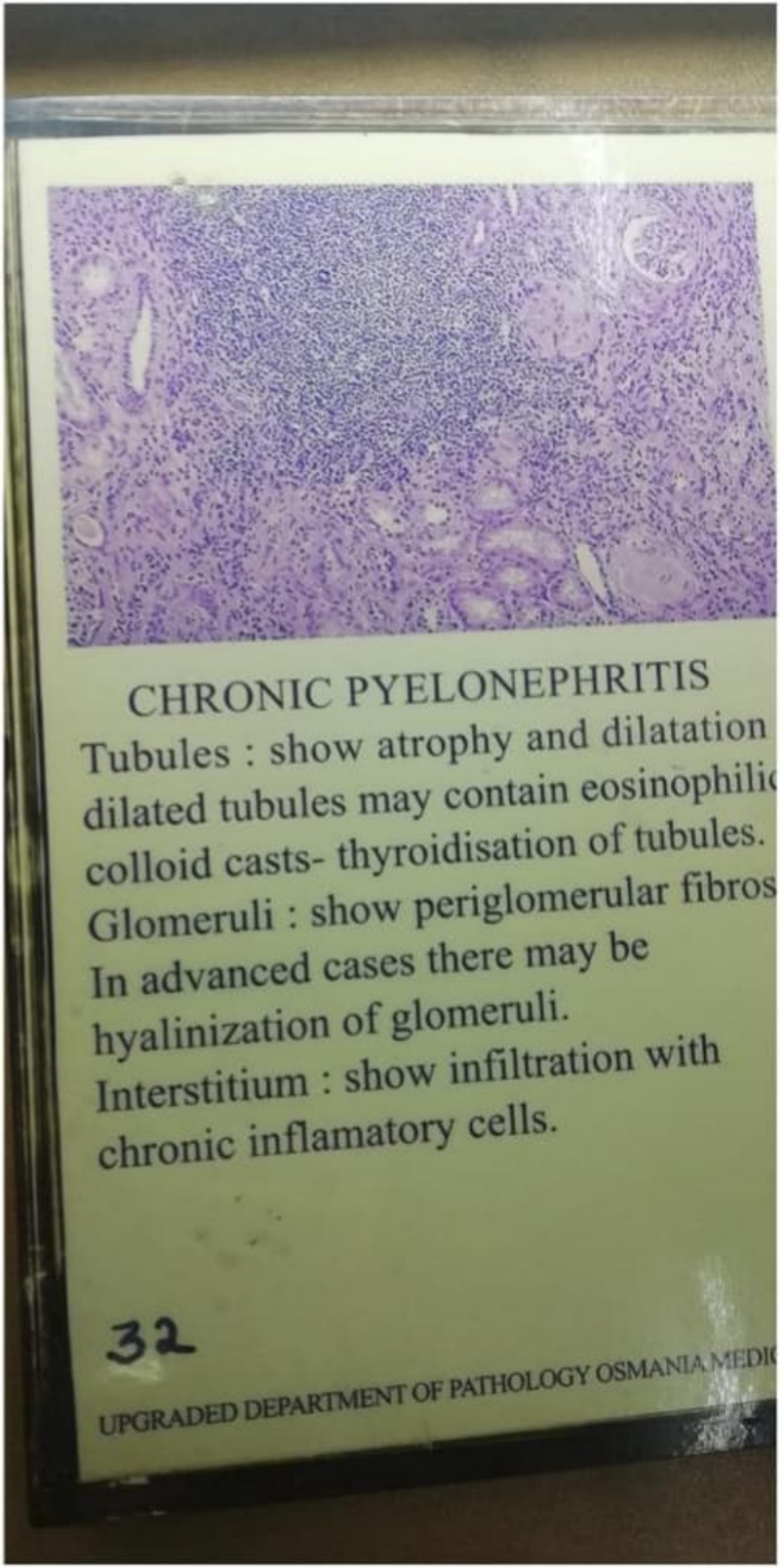
Intracanalicular pattern : stroma compresses the ducts so that they are reduced to slit like clefts lined by ductal epithelium.

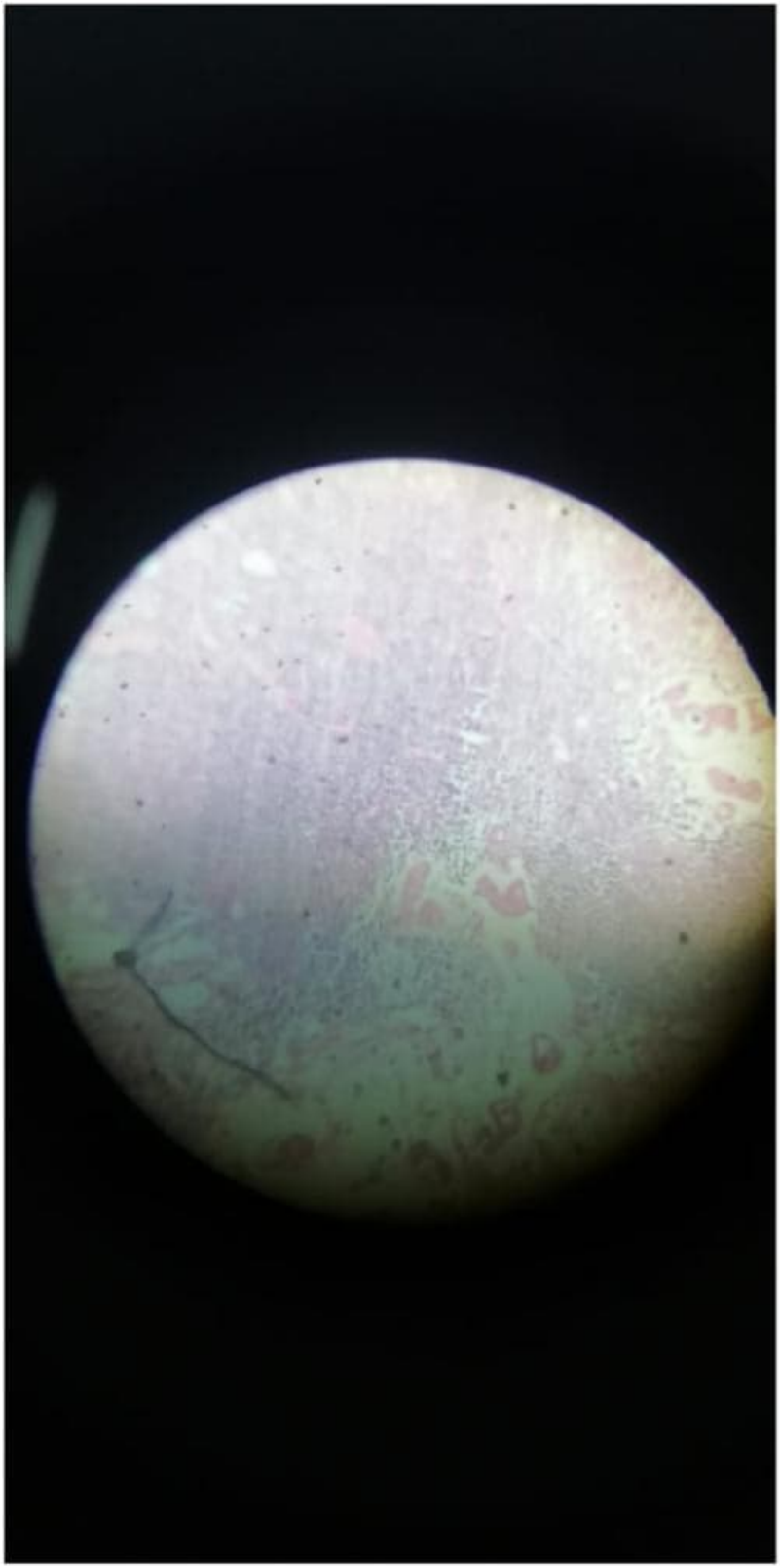
Pericanalicular pattern :characterised by encircling masses of fibrous stroma around the patent or dilated ducts.

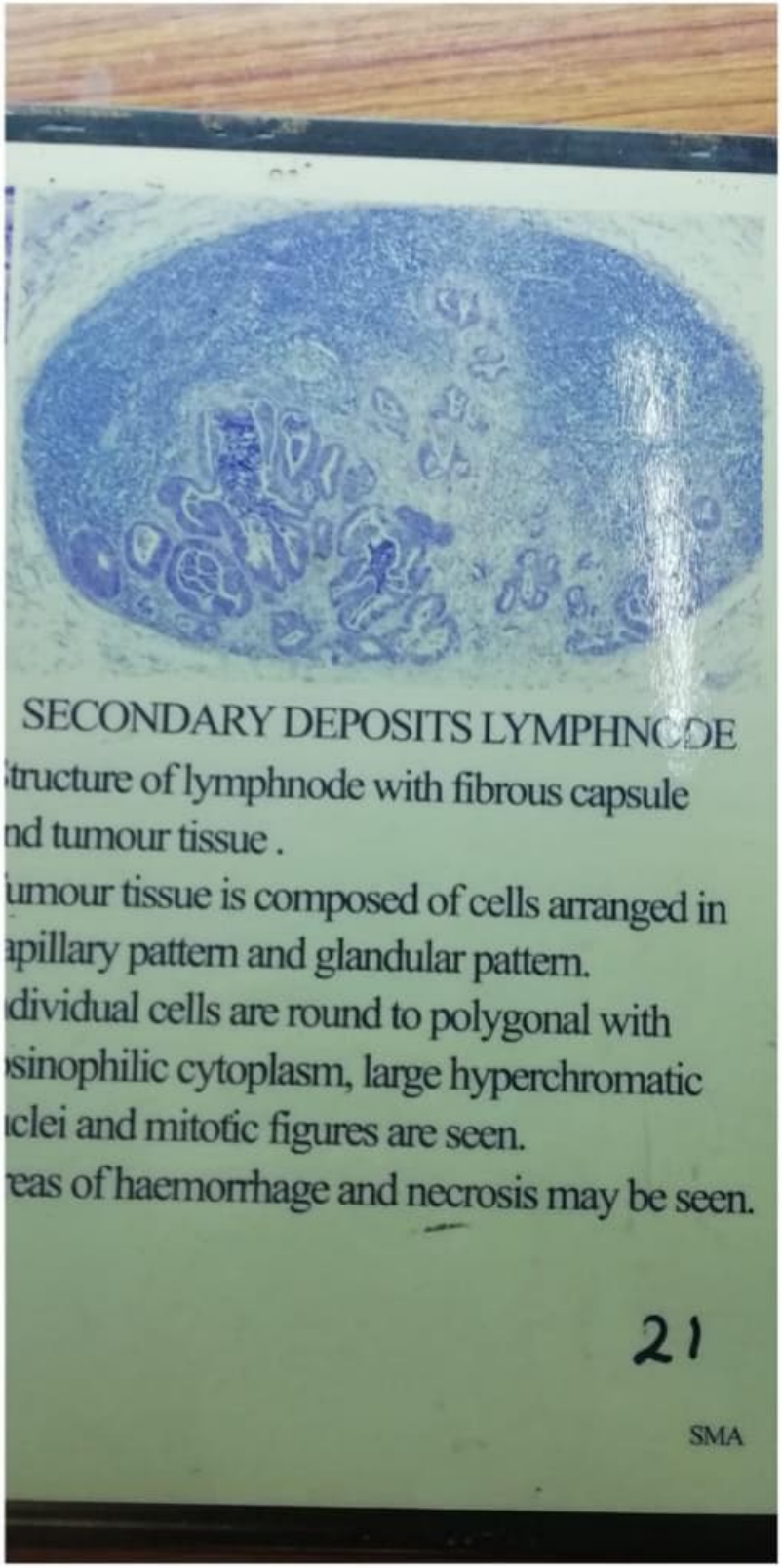
28

UPGRADED DEPARTMENT OF PATHOLOGY OSMANIA MEDICAL




CHRONIC PYELONEPHRITIS
Tubules : show atrophy and dilatation
dilated tubules may contain eosinophilic
colloid casts- thyroidisation of tubules.
Glomeruli : show periglomerular fibros
In advanced cases there may be
hyalinization of glomeruli.
Interstitium : show infiltration with
chronic inflamatory cells.
32
UPGRADED DEPARTMENT OF PATHOLOGY OSMANIA MEDI





SECONDARY DEPOSITS LYMPHNODE

tructure of lymphnode with fibrous capsule
nd tumour tissue .

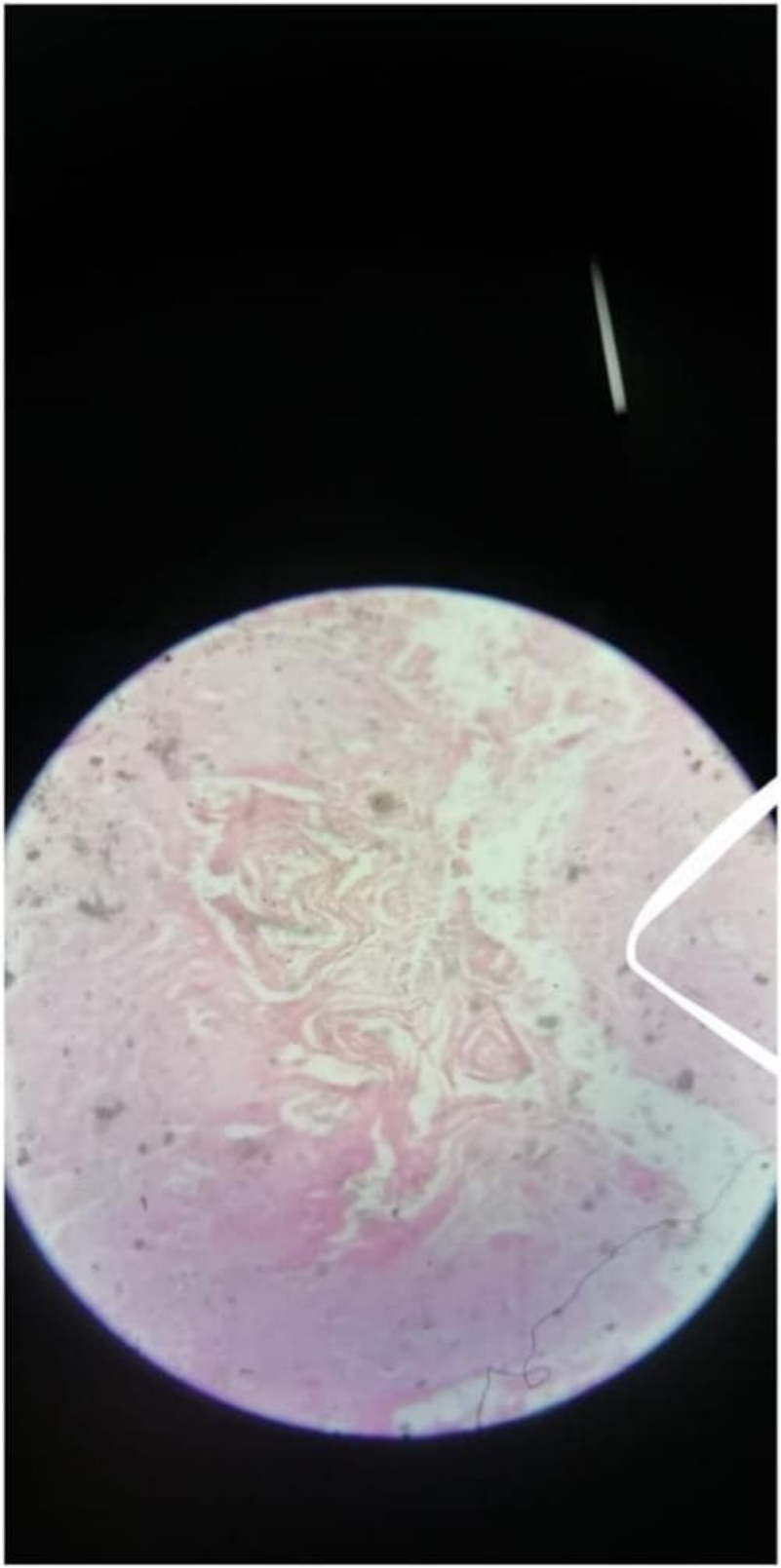
umour tissue is composed of cells arranged in
apillary pattern and glandular pattern.

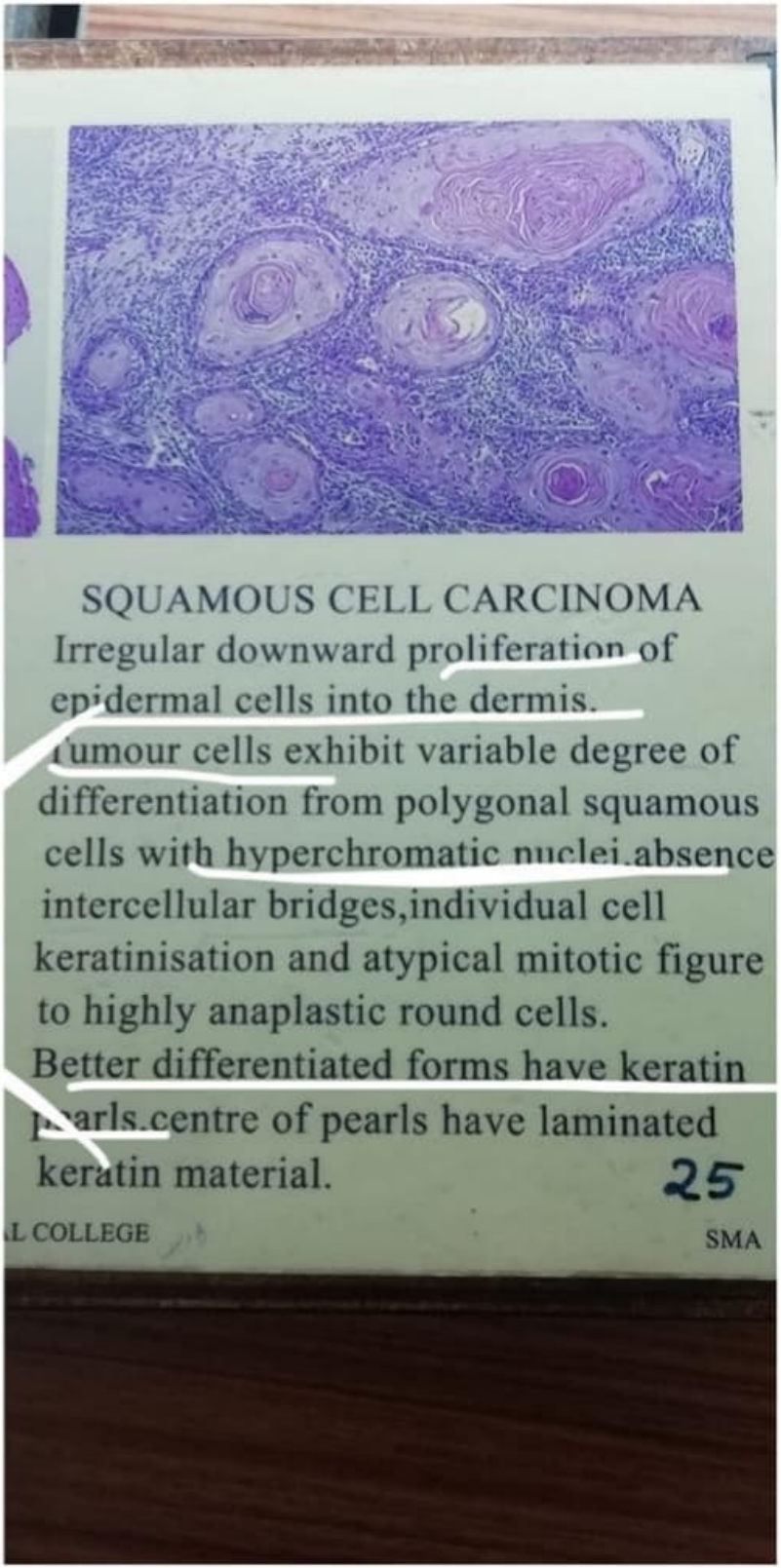
dividual cells are round to polygonal with
sinophilic cytoplasm, large hyperchromatic
clei and mitotic figures are seen.

eas of haemorrhage and necrosis may be seen.

21

SMA





SQUAMOUS CELL CARCINOMA

Irregular downward proliferation of epidermal cells into the dermis.

Tumour cells exhibit variable degree of differentiation from polygonal squamous cells with hyperchromatic nuclei,absence intercellular bridges,individual cell keratinisation and atypical mitotic figure to highly anaplastic round cells.

Better differentiated forms have keratin pearls.centre of pearls have laminated keratin material.

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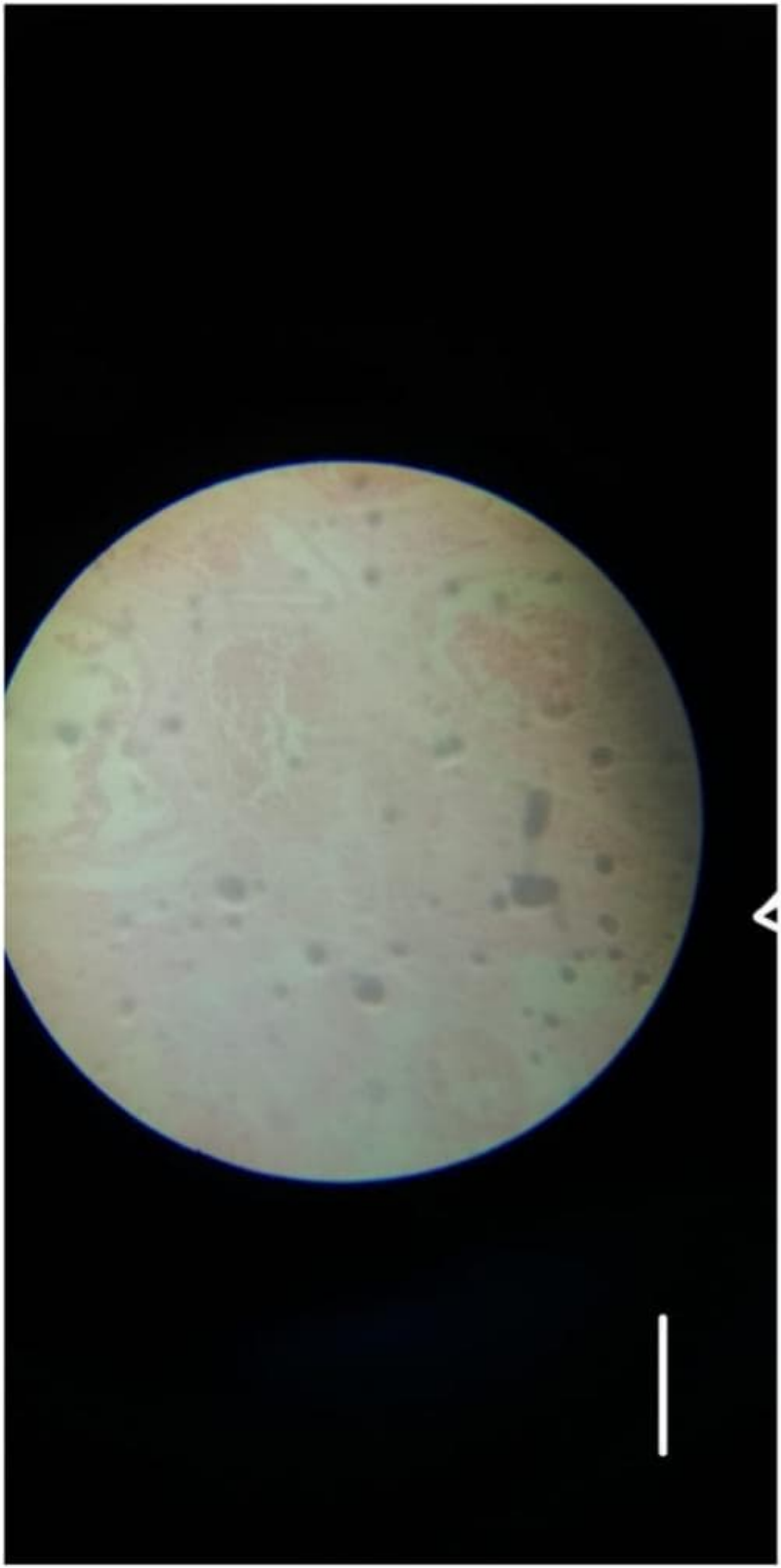
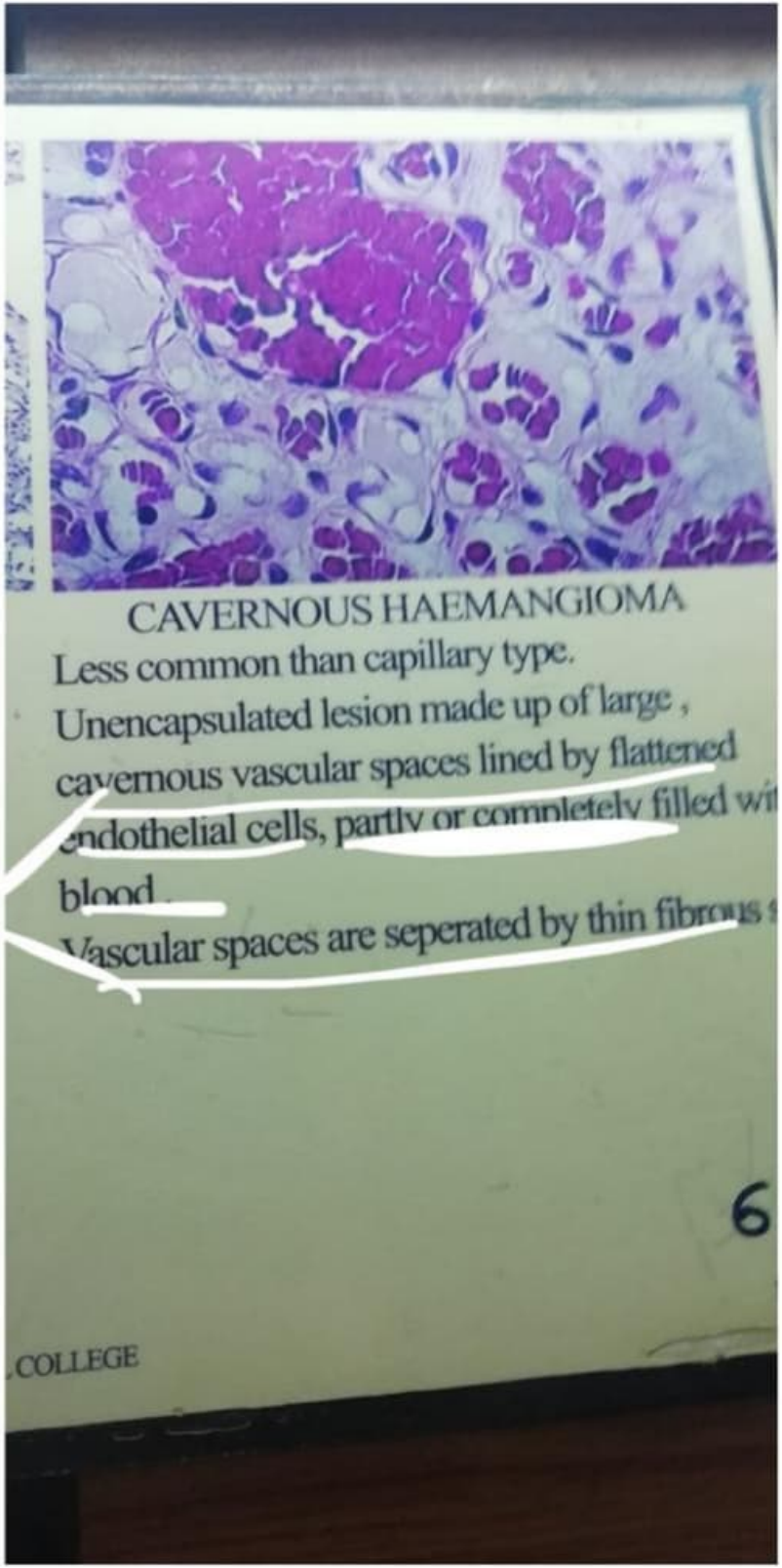
L COLLEGE SMA





CAVERNOUS HAEMANGIOMA

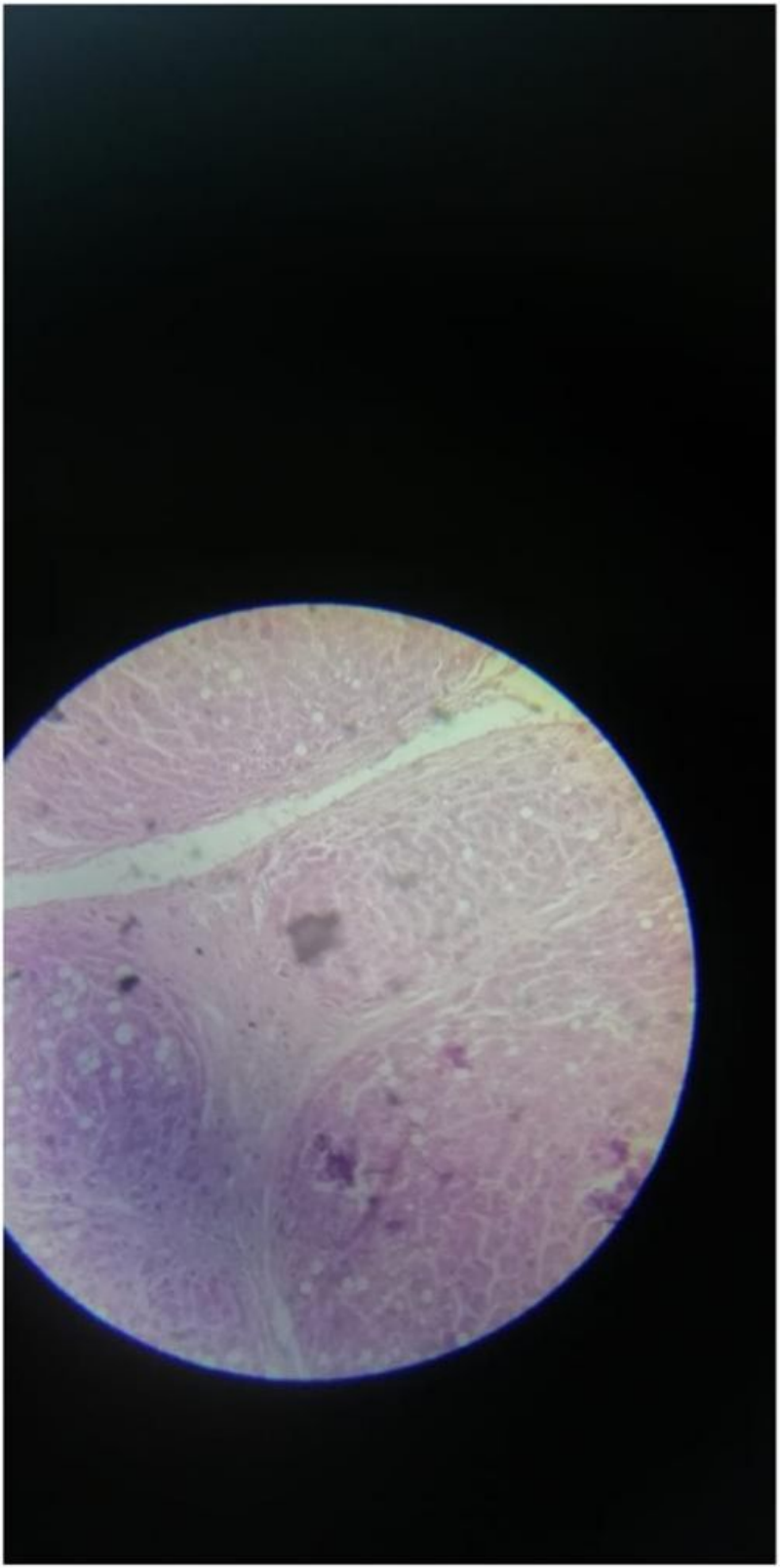
Less common than capillary type.

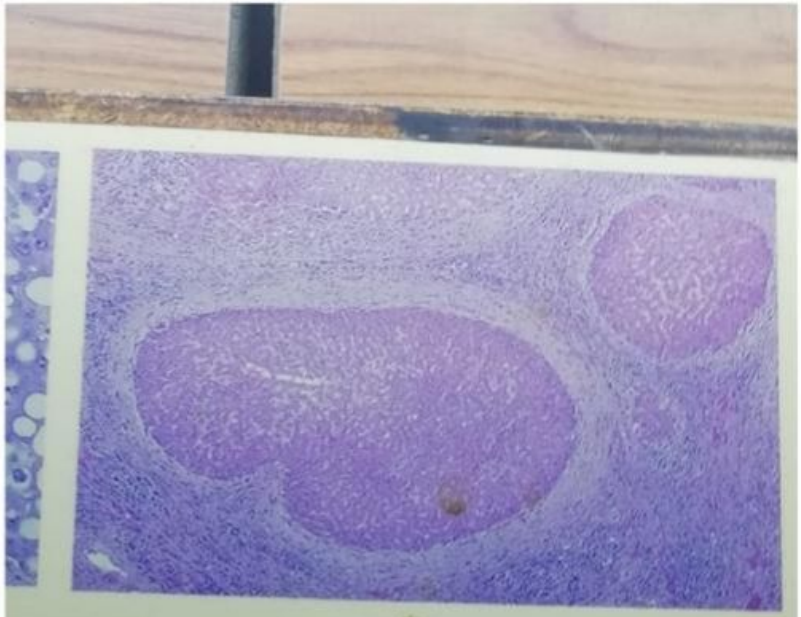
Unencapsulated lesion made up of large , cavernous vascular spaces lined by flattened endothelial cells, partly or completely filled wit blood .

Vascular spaces are seperated by thin fibrous

6

COLLEGE





CIRRHOSIS LIVER

es. Loss of architecture of liver.

Multiple nodules separated by fibrous septae.

Parenchymal nodules created by regeneration of hepatocytes.

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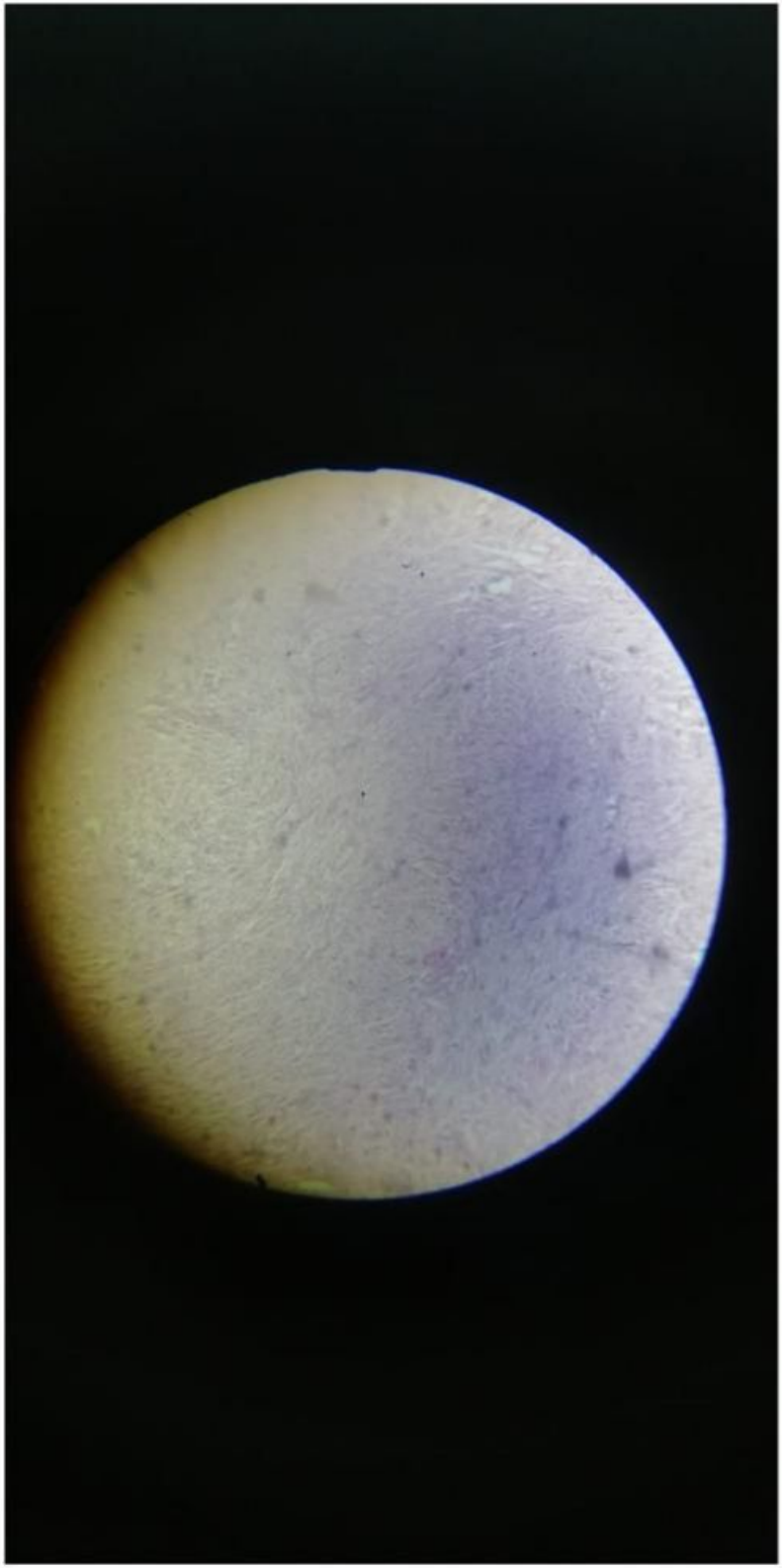
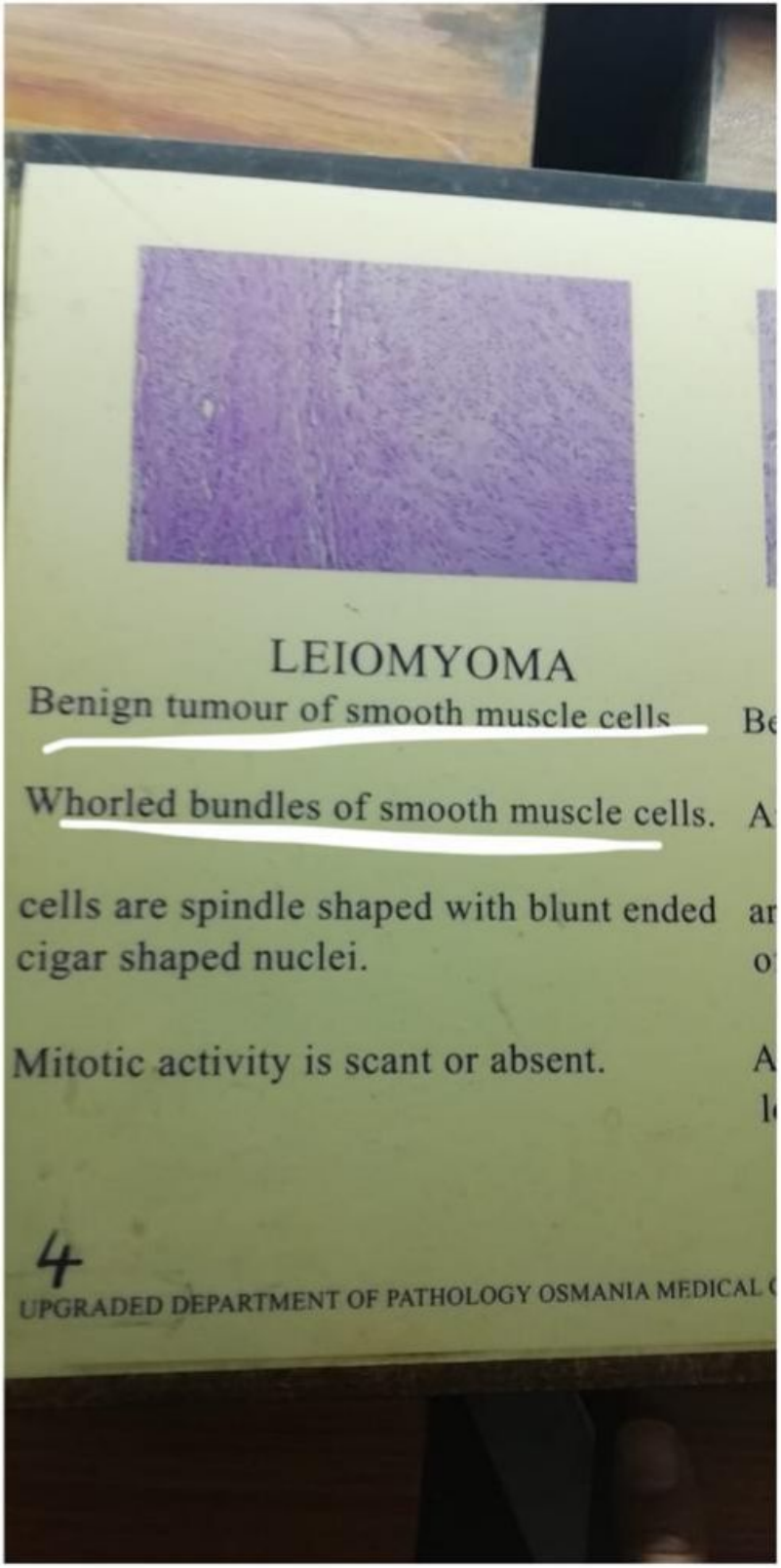
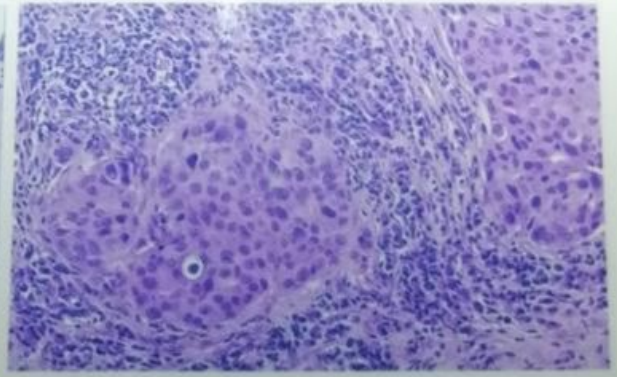
AL COLLEGE SMA




LEIOMYOMA
Benign tumour of smooth muscle cells
Whorled bundles of smooth muscle cells.
cells are spindle shaped with blunt ended cigar shaped nuclei.
Mitotic activity is scant or absent.
4
UPGRADED DEPARTMENT OF PATHOLOGY OSMANIA MEDICAL



MEDULLARY CARCINOMA BREAST

Histological variant of duct cell carcinoma.

Characterised by two distinct features :

Tumour cells : sheets of large,pleomorphic tumour cells with abundent cytoplasm, large vesicular nucleus and many atypical mitosis are diffusely spread in the scanty stroma.

Stroma : Is scanty,loose and with prominent lymphocytic infiltration.

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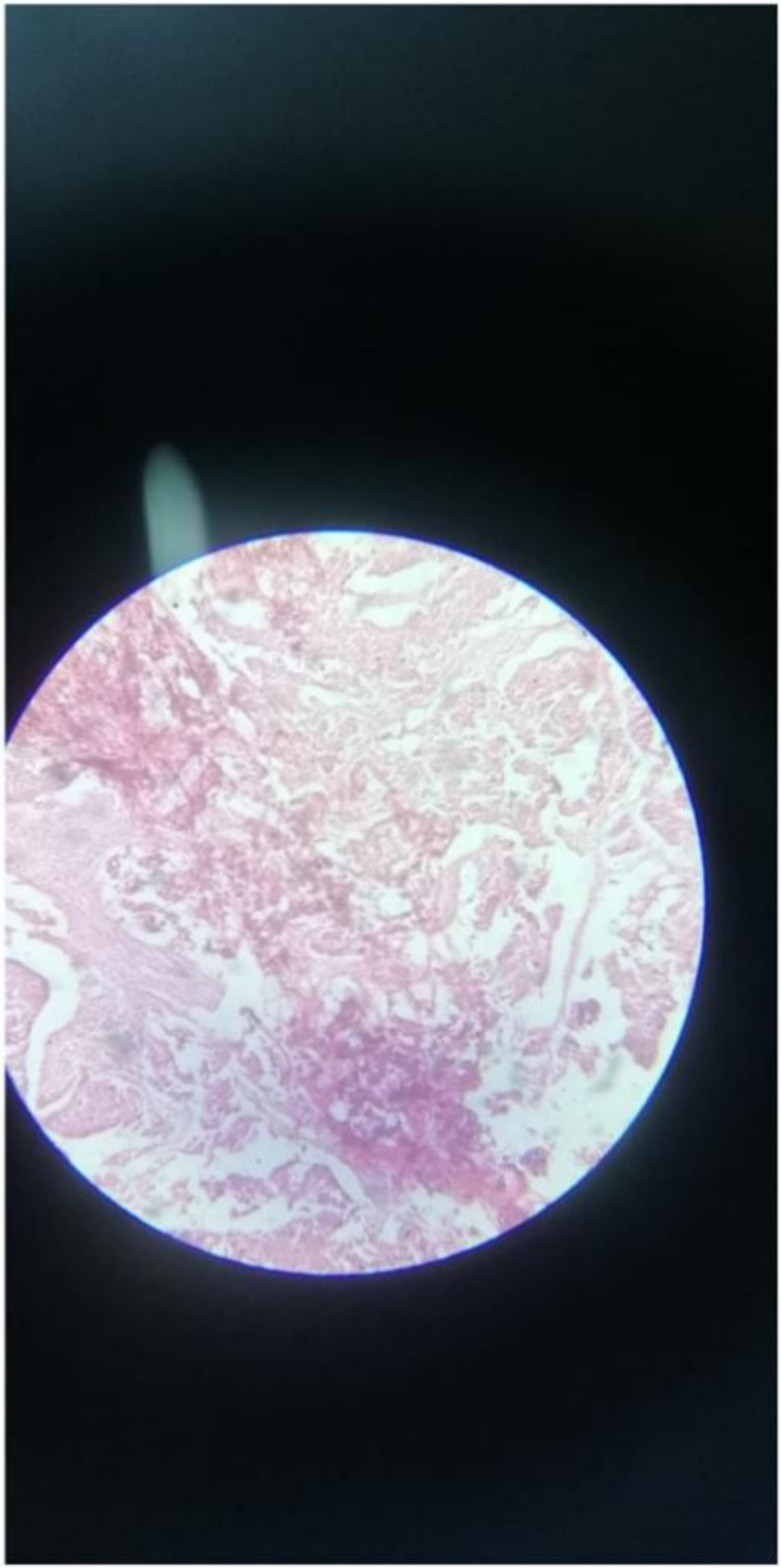
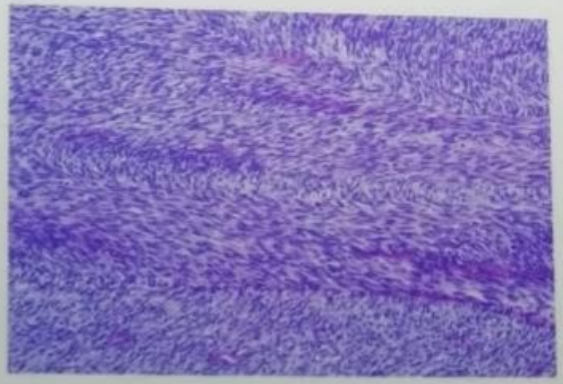
CAL COLLEGE SMA





FIBROSARCOMA

Tumour arises from fascia,inter-muscular septa,subcutaneous tissue.

Unencapasulated tumour composed of spindle shaped cells(fibroblasts) arranged in "herring bone" pattern.

Stroma is scanty.
Frequent mitosis seen.

2

AL COLLEGE

SMA