

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 001

System : Digestive

Acute Diffuse suppurative appendicitis

Section in the appendix shows:

- The surface epithelium is shedded in the appendicular lumen.
- The lamina propria and serosa show dilated congested capillaries, fluid exudate with infiltration by polymorph nuclear leukocytes (PMNLs), few macrophages and large number of pus cells.



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Serosa

This histological image shows a cross-section of the wall of a hollow organ, likely the stomach or intestine. The wall is composed of several layers. On the left, the serosa is visible as a thin, fibrous outer layer. Below it is the muscle layer, which consists of multiple layers of smooth muscle fibers. On the right side, the mucosal layer is visible, showing the epithelium and underlying connective tissue. The epithelium appears to be shed, with fragments of cells and debris scattered throughout the lumen. The overall appearance is that of a well-organized, multi-layered structure.

Muscle layer

Shedded epithelium

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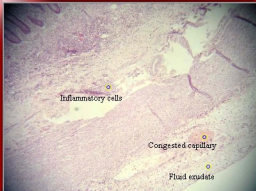
Slide No : 001

System : Digestive

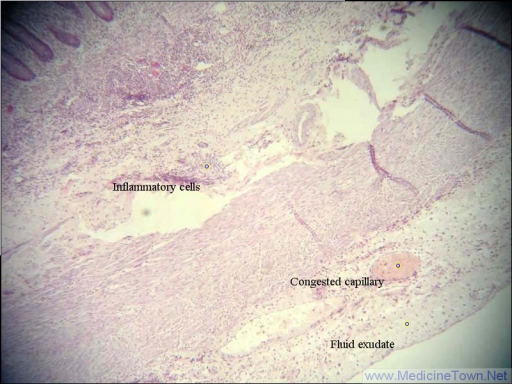
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Inflammatory cells

Congested capillary

Fluid exudate

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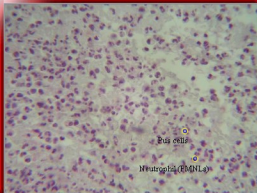
Slide No : 001

System : Digestive

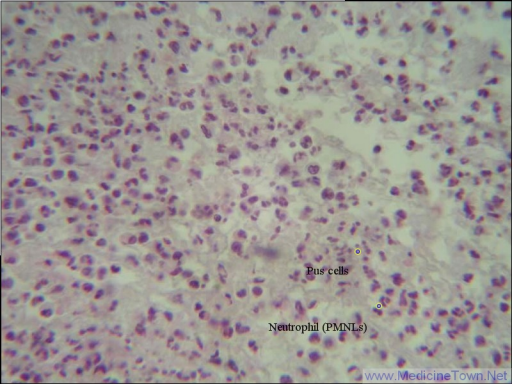
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Pus cells

Neutrophil (PMNLs)

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Slide No : 002

System : Respiratory

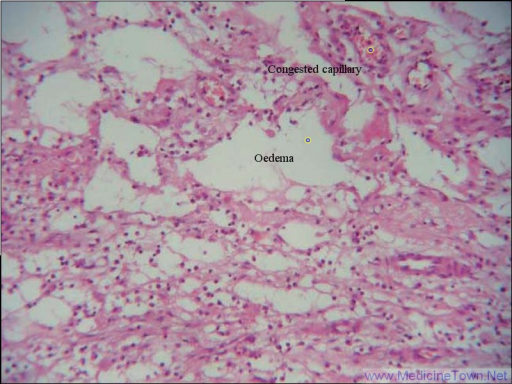
Allergic nasal polyp

Section shows polypoid structures composed of:

- Central connective tissue core shows allergic inflammation (dilated congested capillaries, marked oedema, large number of eosinophils, plasma cells and few PMNLs with hyperplastic mucous glands). This core is covered by:
- Epithelial covering: nasal mucosa (pseudo-stratified columnar ciliated epithelium) with foci of squamous metaplasia.



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Congested capillary

Oedema

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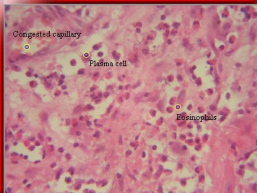
Slide No : 002

System : Respiratory

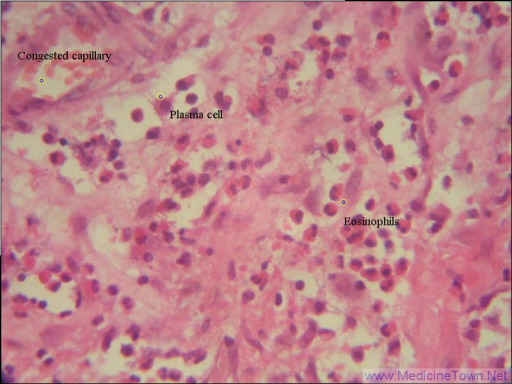
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Congested capillary

This histological slide shows a tissue section with a congested capillary in the upper left, a plasma cell in the center, and a cluster of eosinophils on the right. The tissue is stained with hematoxylin and eosin (H&E), showing pink cytoplasm and purple nuclei. The congested capillary contains numerous red blood cells. The plasma cell has a characteristic eccentric nucleus and a prominent, pale, perinuclear halo. The eosinophils are characterized by their bright red, granular cytoplasm and bilobed nuclei.

Plasma cell

Eosinophils

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Slide No : 002

System : Respiratory

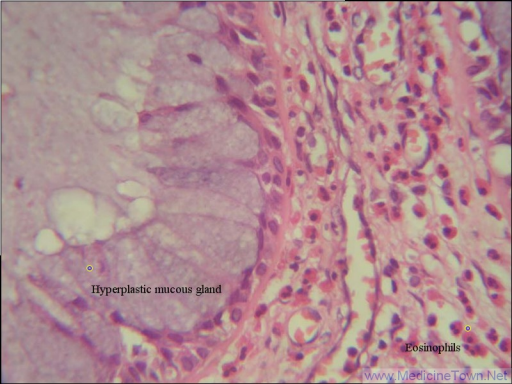
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Hyperplastic mucous gland

Eosinophils

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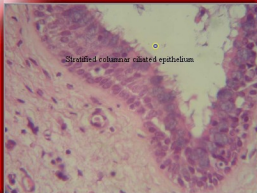
Slide No : 002

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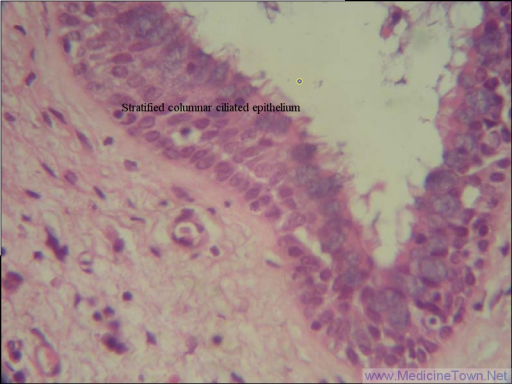
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A histological micrograph showing a cross-section of stratified columnar ciliated epithelium. The tissue consists of multiple layers of cells. The surface layer is composed of tall, columnar cells with cilia extending from their apical surfaces. Beneath this layer, there are several layers of shorter, more rounded cells. The overall structure is organized into a well-defined, multi-layered epithelial lining. The staining is pink and purple, highlighting the cellular structures and nuclei.

Stratified columnar ciliated epithelium

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Slide No : 003

System : Digestive

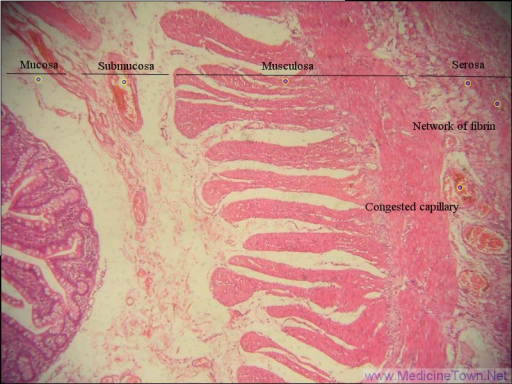
Section in the small intestine shows:

- The mucosa, submucosa and musculosa are normal.
- The serosa is widened to show acute inflammation (dilated congested capillaries, PMNLs, macrophages and fluid exudate containing fibrin). The serosal cells are swollen or shedded and covered by a network of fibrin entangling PMNLs and macrophages.

Serofibrinous peritonitis



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Mucosa

Submucosa

Musculosa

Serosa

Network of fibrin

Congested capillary

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 003

System : Digestive

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Serofibrinous peritonitis



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Congested capillary

Network of fibrin

Inflammatory cells

Fluid exudate

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 003

System : Digestive

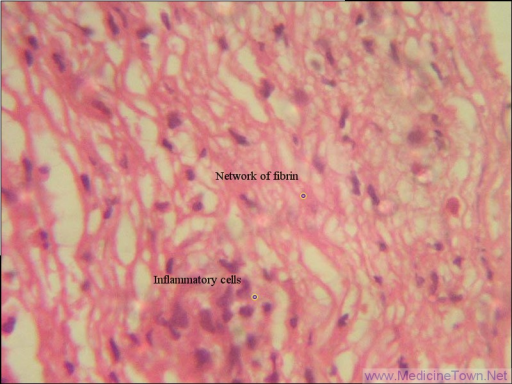
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Network of fibrin

Inflammatory cells

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 004

System : Digestive

Chronic non-specific inflammation

Section in the gall bladder shows:

- The surface epithelium is ulcerated or hyperplastic and extends deep in the musculosa.
- The lamina propria and serosa show end arteritis obliterans, chronic inflammatory cells as macrophages, plasma cells and lymphocytes. Fibrosis is seen in the serosa.



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Fibrosed serosa

This histological image shows a cross-section of the stomach wall with a prominent ulcer. The ulcer is characterized by a deep, irregular defect in the mucosal lining. The edges of the ulcer are marked by ulcerated epithelium, where the normal columnar epithelium is replaced by a flattened, necrotic layer. The underlying mucosa is significantly thickened and contains numerous inflammatory cells, indicating a chronic inflammatory response. The muscularis layer is also visible, showing some disorganization and thickening. The outermost layer, the serosa, is fibrosed, suggesting a long-standing or healed ulcer. The overall appearance is that of a chronic peptic ulcer.

Mucosa

Inflammatory cells

Musculosa

Ulcerated epithelium

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Slide No : 004

System : Digestive

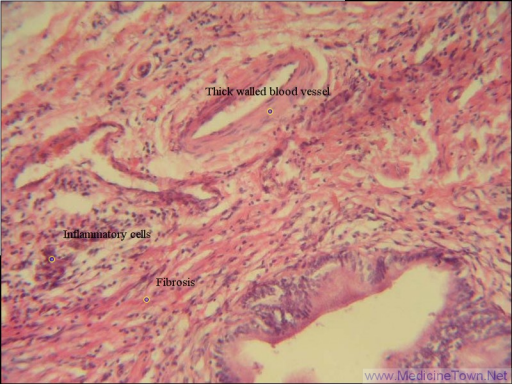
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Thick walled blood vessel

Inflammatory cells

Fibrosis

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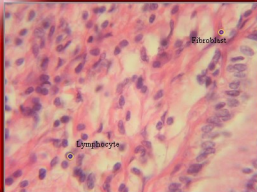
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System : Digestive

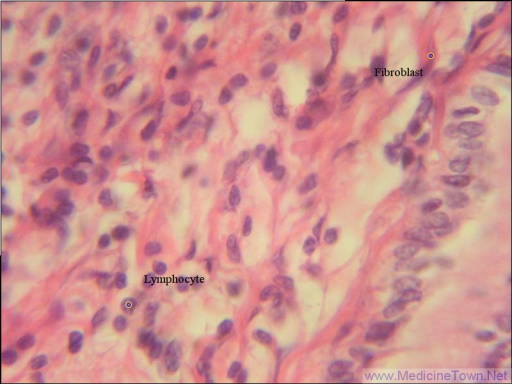
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Fibroblast

Lymphocyte

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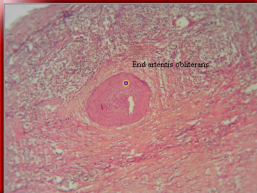
Slide No : 004

System : Digestive

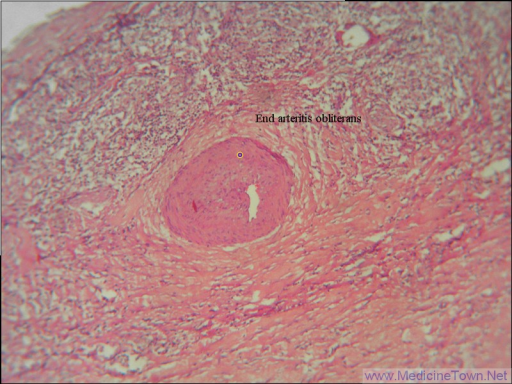
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End arteritis obliterans

This histological image shows a cross-section of an artery affected by end arteritis obliterans. The central feature is a circular vessel with a significantly narrowed lumen, indicated by a small white square. The vessel wall is thickened and densely packed with inflammatory cells, primarily lymphocytes, which have infiltrated the intima and media. The surrounding tissue consists of a dense network of collagen fibers and scattered inflammatory cells, characteristic of a chronic inflammatory process. The overall appearance is that of a vessel undergoing progressive occlusion due to chronic inflammation.

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Slide No : 005

System : Miscellaneous

Granulation tissue

Section shows:

- Newly formed capillaries lined by swollen endothelium or in the form of solid buds.
- Fibroblasts: spindle cells with tapering ends, spindle shaped nuclei and scanty cytoplasm.
- The background shows pink collagen fibers, acute inflammatory cells and fluid exudate.



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Inflammatory cells

This histological image shows a tissue section with significant inflammation. The field is populated with numerous inflammatory cells, which are stained purple. A central feature is a newly formed capillary, characterized by a thin wall and a lumen containing red blood cells. Surrounding this capillary is a clear space filled with fluid exudate, also containing red blood cells. The overall appearance is that of an acute inflammatory response.

Newly formed capillary

Fluid exudate

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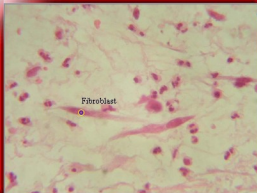
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A light micrograph of connective tissue stained with hematoxylin and eosin (H&E). The image shows a dense population of cells and fibers. The cells have dark purple nuclei and some have elongated, spindle-shaped bodies. The background is a pale pinkish-yellow color, representing the extracellular matrix. A small yellow circle highlights a specific cell, which is identified as a fibroblast. The text 'Fibroblast' is printed in black above the circle. The overall appearance is that of a typical connective tissue section.

Fibroblast

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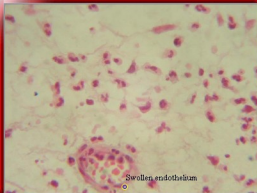
Slide No : 005

System : Miscellaneous

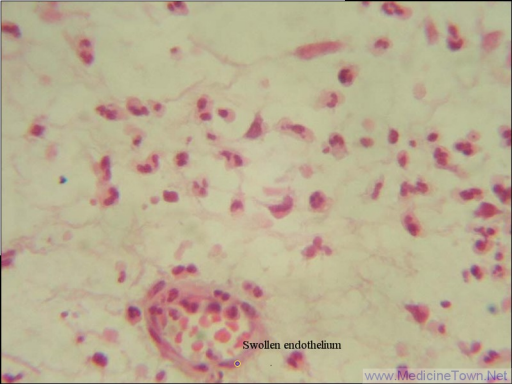
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Swollen endothelium

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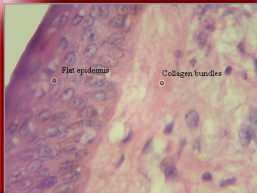
Slide No : 006

System : Miscellaneous

Skin scar

Section in the skin shows:

- Areas of scar tissue showing thin flat epidermis (absent rete ridges and dermal papillae).
- The dermis contains heavy hyalinized avascular collagen bundles in various directions with absent skin appendages.
- Areas of normal skin with rete ridges, dermal papillae and skin appendages.



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Flat epidermis

Collagen bundles

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 006

System : Miscellaneous

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Flat epidermis

This histological image shows a cross-section of skin. The upper portion is the epidermis, which is thin and appears as a flat, multi-layered structure. Below it is the dermis, characterized by a dense network of pink-stained collagen bundles and scattered purple-stained nuclei of fibroblasts. The overall texture is fibrous and organized.

Collagen bundles

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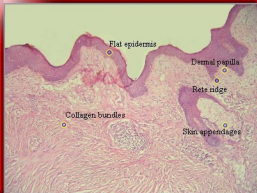
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Flat epidermis

Dermal papilla

Rete ridge

Collagen bundles

Skin appendages

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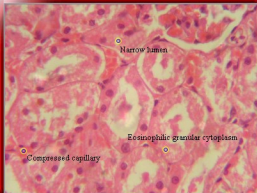
Slide No : 007

System : Urinary

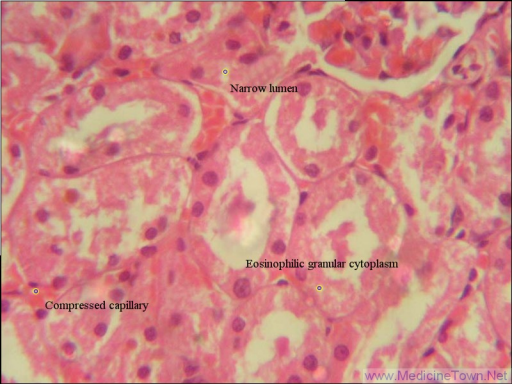
Cloudy swelling (kidney)

Section in the kidney shows that the convoluted tubules:

- The cells are swollen, conical with eosinophilic granular cytoplasm and intact nuclei.
- The lumina are narrow irregular or star-shaped. The apices of cells may rupture leaving the basal portion only with widening of the tubular lumen.
- The capillaries of the interstitium are compressed by the swollen tubules.



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Narrow lumen

Eosinophilic granular cytoplasm

Compressed capillary

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Slide No : 007

System : Urinary

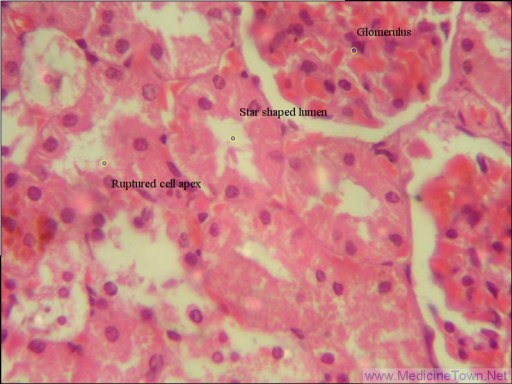
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Glomerulus

Star shaped lumen

Ruptured cell apex

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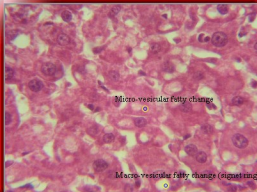
Slide No : 008

System : Digestive

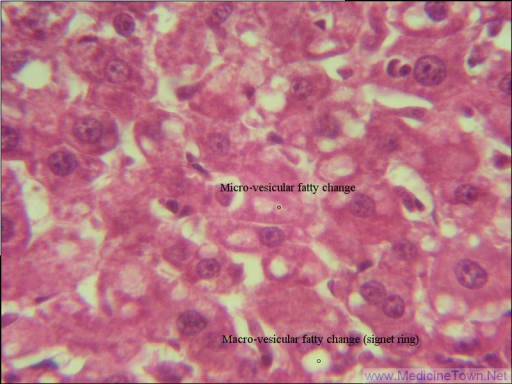
Fatty change (liver)

Section in the liver shows:

- Preserved liver architecture with normal portal tracts.
- Some hepatocytes show small clear fat vacuoles due to dissolution of fat globules during preparation (micro-vesicular).
- Other hepatocytes show large clear fat vacuoles flattening and pushing of the nucleus to one side giving signet ring appearance (macro-vesicular).



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Micro-vesicular fatty change

Macro-vesicular fatty change (signet ring)

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Slide No : 008

System : Digestive

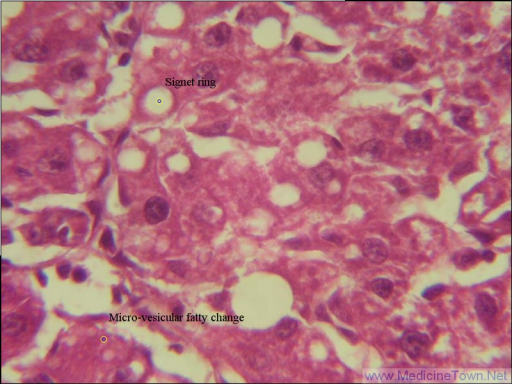
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Signet ring

Micro-vesicular fatty change

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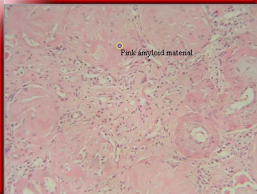
Slide No : 009

System : Urinary

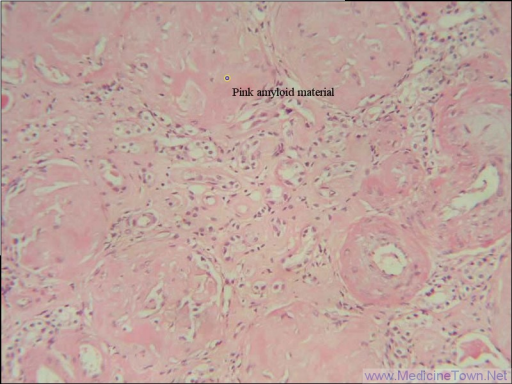
Amyloidosis of the kidney

Section in the kidney shows a homogenous structureless pink amyloid material deposited in:

- The basement membrane of the glomerular capillaries.
- The walls of the afferent and efferent arterioles.
- The basement membrane of the collecting tubules with hyaline casts in the lumen.



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Pink amyloid material

This histological slide shows a dense field of pink-stained amyloid material. The material is distributed throughout the tissue, with some areas showing more intense staining. The background consists of various cellular structures, including what appears to be a cross-section of a blood vessel with a thick, multi-layered wall. The overall appearance is characteristic of amyloidosis, where extracellular deposits of amyloid protein accumulate in various organs.

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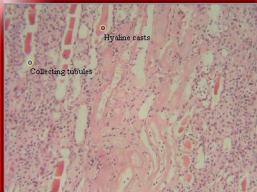
Slide No : 009

System : Urinary

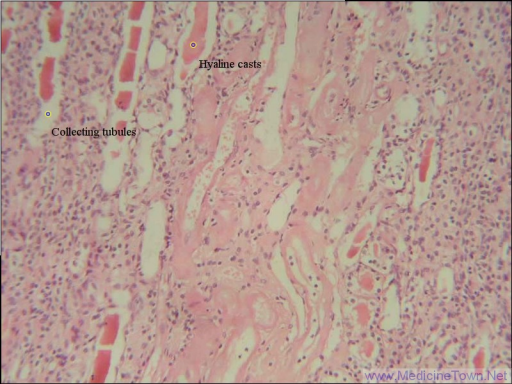
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Hyaline casts

Collecting tubules

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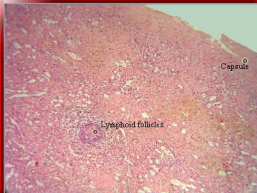
Slide No : 010

System : Lymphatic

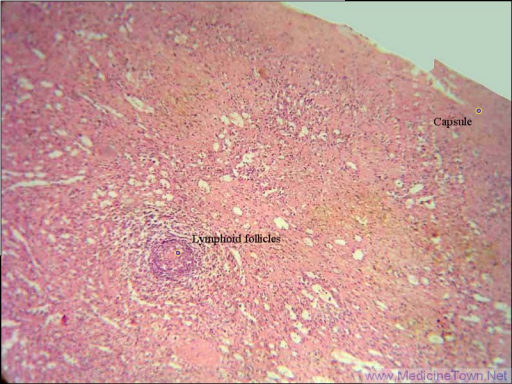
Hyalinosis of the spleen

Section in the spleen shows a homogenous pink structureless glassy material deposited in:

- The splenic capsule and trabeculae.
- The central arterioles of the lymphoid follicles with atrophic changes in these follicles.



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Capsule

Lymphoid follicles

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 010

System : Lymphatic

Hyalinosis of the spleen

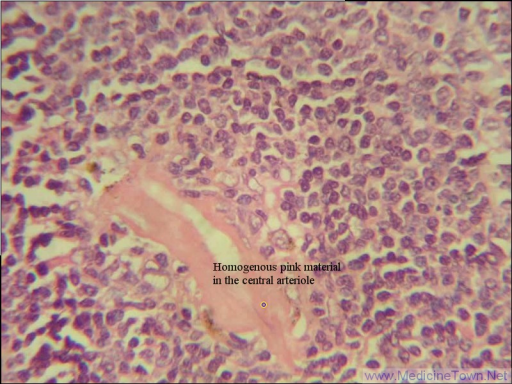
Section in the spleen shows a homogenous pink structureless glassy material deposited in:

- The splenic capsule and trabeculae.
- The central arterioles of the lymphoid follicles with atrophic changes in these follicles.



Homogenous pink material
in the central arteriole

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Homogenous pink material
in the central arteriole

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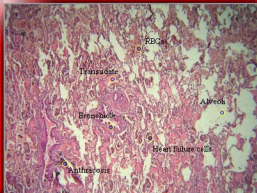
Slide No : 011

System : Respiratory

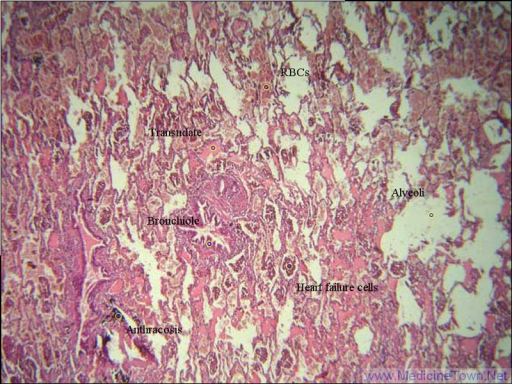
Chronic venous congestion (lung)

Section in the lung shows that:

- The alveolar septa are thickened by transudate and fibrosis and the alveolar capillaries are dilated and congested.
- The alveolar spaces contain:
 - * Homogenous pink transudate.
 - * Intact & hamolyzed RBCs with haemosiderin.
 - * Heart failure cells (large rounded macrophages engulfing RBCs & haemosiderine).



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RBCs

Transudate

Alveoli

Bronchiole

Heart failure cells

Anthracosis

MEDICINETOWN ATLAS OF PATHOLOGY

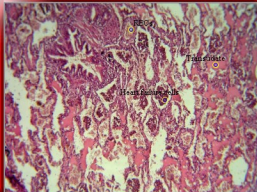
Slide No : 011

System : Respiratory

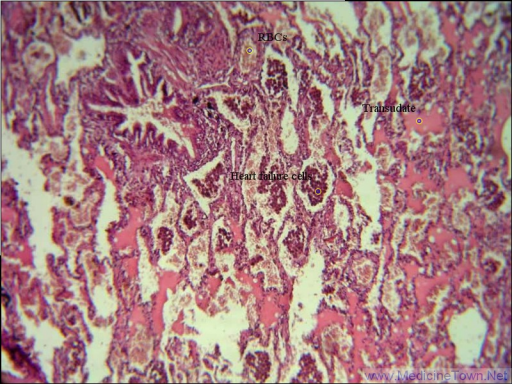
Chronic venous congestion (lung)

Section in the lung shows that:

- The alveolar septa are thickened by transudate and fibrosis and the alveolar capillaries are dilated and congested.
- The alveolar spaces contain:
 - * Homogenous pink transudate.
 - * Intact & hamolyzed RBCs with haemosiderin.
 - * Heart failure cells (large rounded macrophages engulfing RBCs & haemosiderine).



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RBCs

Transudate

Heart failure cells

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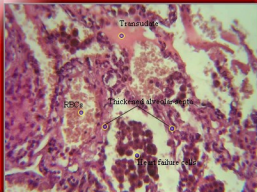
Slide No : 011

System : Respiratory

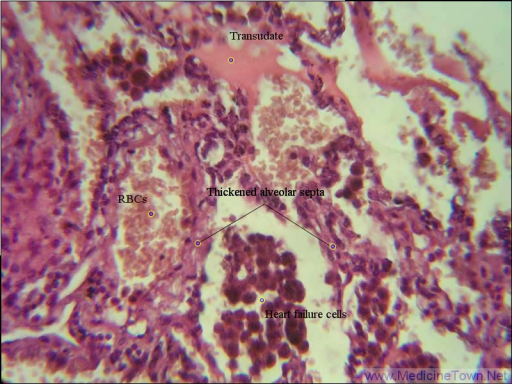
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 - * Heart failure cells (large rounded macrophages engulfing RBCs & haemosiderine).



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Transudate

RBCs

Thickened alveolar septa

Heart failure cells

MEDICINETOWN ATLAS OF PATHOLOGY

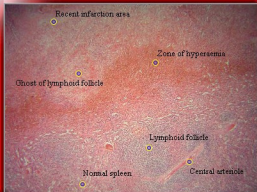
Slide No : 012

System : Lymphatic

Infraction of the spleen

-By **W/E** section shows two zones
dark & pale zones:

- Under **W/E** section of the dark zone shows: Normal splenic tissue formed of white pulp, red pulp & splenic trabeculae.
- The pale zone of recent infarction is formed of ghosts of the normal structures (follicles, blood vessels & trabeculae) with pyknosis & karyorrhexis of the nuclei.
- Zone of hyperaemia and congestion in between the previous two zones.



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Recent infarction area

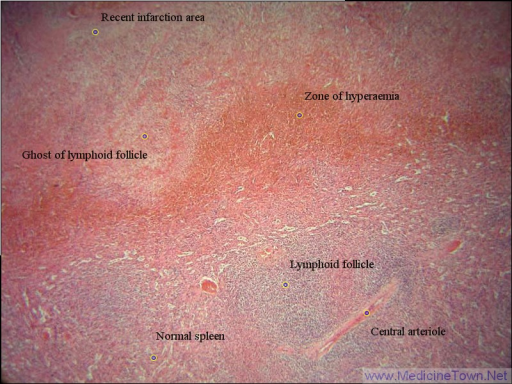
Zone of hyperaemia

Ghost of lymphoid follicle

Lymphoid follicle

Normal spleen

Central arteriole



MEDICINETOWN ATLAS OF PATHOLOGY

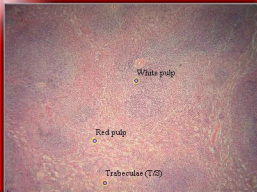
Slide No : 012

System : Lymphatic

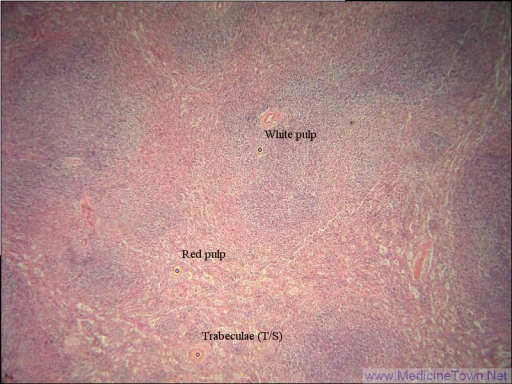
Infraction of the spleen

-By N/E section shows two zones dark & pale zones:

- Under ME section of the dark zone shows: Normal splenic tissue formed of white pulp, red pulp & splenic trabeculae.
- The pale zone of recent infarction is formed of ghosts of the normal structures (follicles, blood vessels & trabeculae) with pyknosis & karyorrhexis of the nuclei.
- Zone of hyperaemia and congestion in between the previous two zones.



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White pulp

Red pulp

Trabeculae (T/S)

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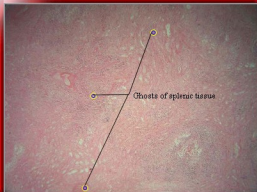
Slide No : 012

System : Female Reproductive

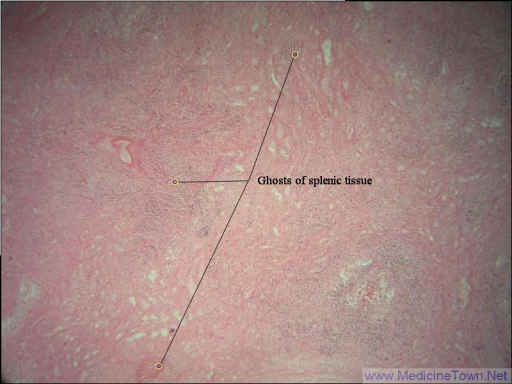
Infraction of the spleen

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- Zone of hyperaemia and congestion in between the previous two zones.



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Ghosts of splenic tissue

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Slide No : 013

System : Circulatory

A transverse section of a blood vessels with a thrombus shows:

- The head of the thrombus is attached to one side of the blood vessel.
- The substance (tail) of the thrombus is formed of alternation of:
 - * Lines of Zahn: homogenous pink lines of fused platelets.
 - * Fibrin network entangling RBCs and WBCs between lines of Zahn.

Recent thrombus



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Lines of Zahn

Entangled BRCs

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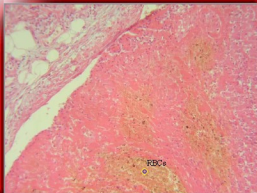
Slide No : 013

System : Circulatory

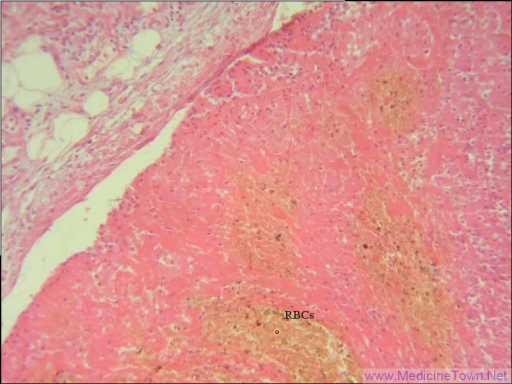
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RBCs

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 014

System : Lymphatic

Early T.B of the lymph node

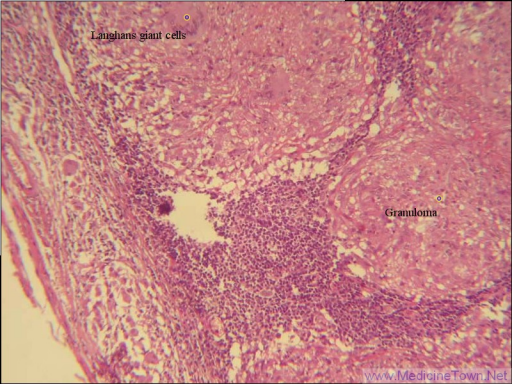
Section in the lymph node shows:

- A large number of pale pink rounded tubercles formed of:

- Epithelioid cells: large swollen cells with ill-defined cell borders, pale eosinophilic cytoplasm & large vesicular nuclei.
- Giant cells: large cells with abundant eosinophilic cytoplasm & multiple nuclei arranged as a horseshoe (typical Langhans cells) or may be unipolar, bipolar, central or irregular.
- Peripheral zone of T-lymphocytes
- No or minimal caseation



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This histological slide shows a granuloma, a collection of immune cells. A central feature is a Langhans giant cell, which is a large cell with multiple nuclei arranged in a horseshoe pattern. The surrounding tissue is densely packed with inflammatory cells, primarily mononuclear cells like lymphocytes and macrophages. The overall appearance is characteristic of a chronic inflammatory response.

Langhans giant cells

Granuloma

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 014

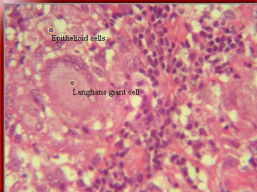
System : Lymphatic

Early T.B of the lymph node

Section in the lymph node shows:

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- Peripheral zone of T-lymphocytes
- No or minimal caseation



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Epithelioid cells

This is a high-magnification photomicrograph of a tissue section stained with hematoxylin and eosin (H&E). The field is dominated by a dense population of epithelioid cells, which are large, pale-staining cells with abundant cytoplasm and distinct cell borders. In the center-left, a large, multinucleated Langhans giant cell is visible, characterized by its large size and a ring of nuclei arranged in a horseshoe pattern at its periphery. The overall architecture suggests a granulomatous inflammatory process.

Langhans giant cell

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 015

System : Lymphatic

Late T.B of the lymph node

Section of the lymph node shows:

- Most of the lymph node substance is replaced by caseous homogenous structureless pink material.
- The periphery of the lymph node show tubercles most of them are caseating formed of:
 - * Central pink homogenous caseation.
 - * Epithelioid cells: large swollen cells with ill-defined cell borders, pale eosinophilic cytoplasm & large vesicular nuclei.
 - * Giant cells: large cells with abundant eosinophilic cytoplasm & multiple nuclei arranged as a horseshoe



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Rest of lymphoid tissue

This histological slide shows a section of lymphoid tissue on the left and a large, well-defined granuloma on the right. The granuloma is characterized by a central area of caseation, which is a pale, eosinophilic, amorphous mass. Surrounding this center is a ring of epithelioid cells, which are large, pale-staining cells with foamy or vacuolated cytoplasm. The rest of the lymphoid tissue consists of a dense population of small, dark-staining lymphocytes.

Caseating T.B. granulomas

Epithelioid cells

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 015

System : Lymphatic

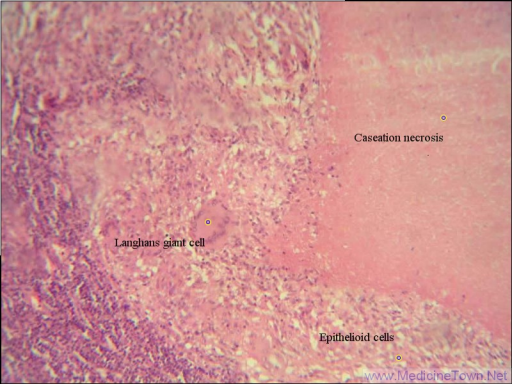
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Caseation necrosis

Langhans giant cell

Epithelioid cells

MEDICINETOWN ATLAS OF PATHOLOGY

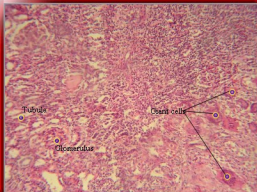
Slide No : 016

System : Urinary

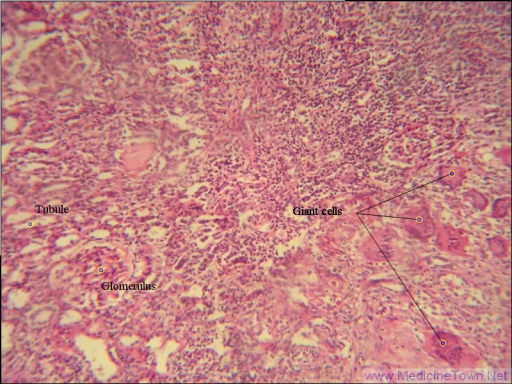
T.B Pyelonephritis

Section in the kidney at the cortico-medullary junction shows :

- T.B granuloma (caseating and non-caseating) formed of:
 - Central pink homogenous caseation
 - Epithelioid cells large swollen cells with ill-defined cell borders, pale eosinophilic cytoplasm & large vesicular nuclei.
 - Giant cells (fused epithelioid cells: large cells with abundant eosinophilic cytoplasm & multiple nuclei arranged as a horse-shoe (typical langhans cells) or may be unipolar, bipolar, central or irregular.



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Tubule

Glomerulus

Giant cells

MEDICINETOWN ATLAS OF PATHOLOGY

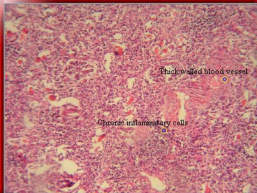
Slide No : 016

System : Urinary

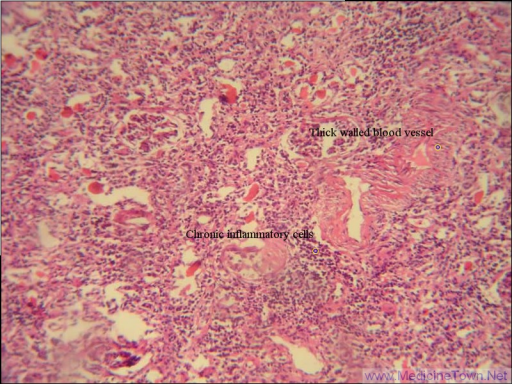
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Thick walled blood vessel

Chronic inflammatory cells

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 017

System : Respiratory

Pulmonary T.B

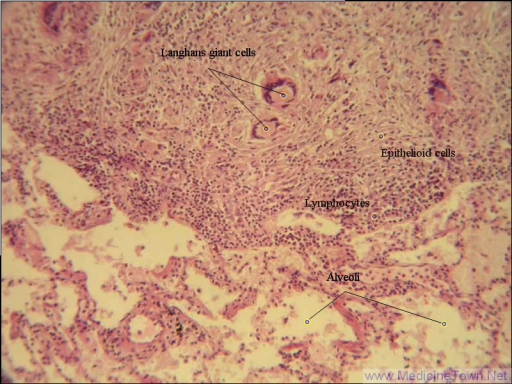
Section in the lung shows:

-T.B reaction caseating & non-caseating formed of:

- Central pink homogenous caseation.
- Epithelioid cells large swollen cells with ill-defined cell borders, pale eosinophilic cytoplasm & large vesicular nuclei.
- Giant cells (fused epithelioid cells): large cells with abundant eosinophilic cytoplasm & multiple nuclei arranged as a horse-shoe (typical Langhans cells) or may be unipolar, bipolar, central or irregular.
- Peripheral zone of T-



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Langhans giant cells

Epithelioid cells

Lymphocytes

Alveoli

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 017

System : Respiratory

Pulmonary T.B

Section in the lung shows:

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- Peripheral zone of T-



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Epithelioid cells

Langhans giant cells

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 017

System : Respiratory

Pulmonary T.B

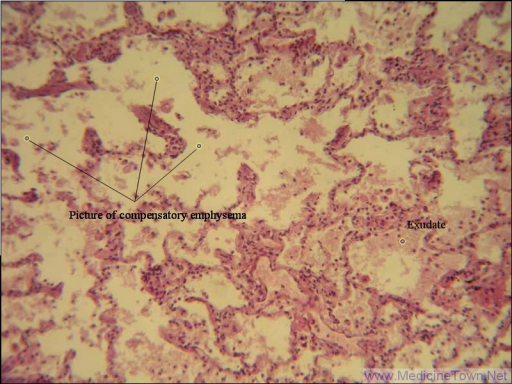
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- Peripheral zone of T-



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Picture of compensatory emphysema

Exudate

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 019

System : Nervous

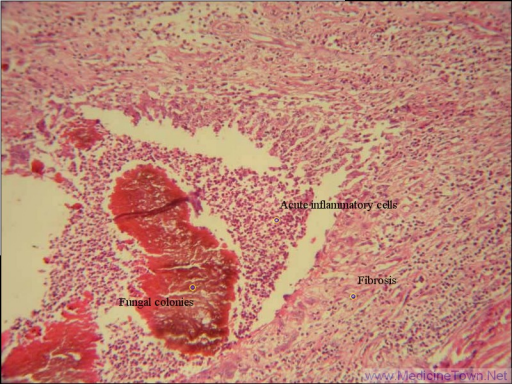
Actinomycosis (madura foot).

Section in the skin & subcutaneous tissue shows:

- The epidermis is hyperkeratotic.
- The dermis shows suppurative granulomas formed of:
 - * Central Fungal colonies: yellowish brown formed of rounded peripheral clubs & central hyphae (filaments).
 - * Zone of acute inflammatory reaction: neutrophils, pus cells & foamy macrophages.
 - * Outer zone of chronic inflammatory reaction and fibrosis.



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Acute inflammatory cells

Fungal colonies

Fibrosis

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 019

System : Nervous

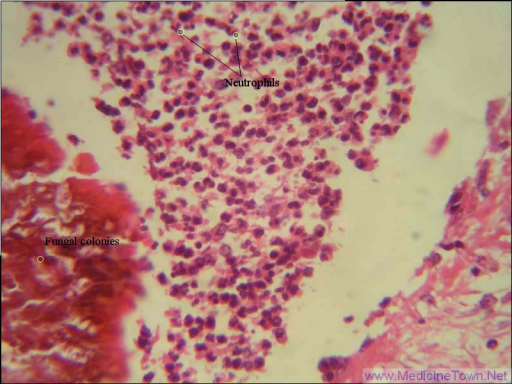
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Actinomycosis (madura foot).



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Neutrophils

Fungal colonies

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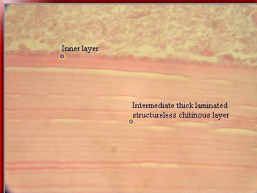
Slide No : 020

System : Miscellaneous

Hydatid cyst

Section in the cyst wall formed of:

- Inner germinal layer where the scolices project.
- Intermediate thick laminated structureless chitinous layer.
- Outer fibrous layer of compressed and atrophied outer tissue.



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A microscopic image showing a cross-section of a biological structure. The top portion is a thick, textured, yellowish-brown layer. Below it is a thin, reddish-brown layer. The middle and bottom portions consist of multiple layers of wavy, pinkish-tan bands. Two labels with small blue circles pointing to specific layers are present.

Inner layer

Intermediate thick laminated
structureless chitinous layer

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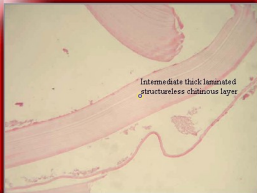
Slide No : 020

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Intermediate thick laminated
structureless chitinous layer

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Intermediate thick laminated
structureless chitinous layer

The image shows a histological section of a chitinous layer, likely from an insect cuticle. It features a prominent, thick, pink-stained band with a laminated appearance, consisting of multiple parallel layers. The layer is described as 'structureless', meaning it lacks distinct cellular or fibrous organization. The surrounding tissue is lighter and less dense.

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 021

System : Urinary

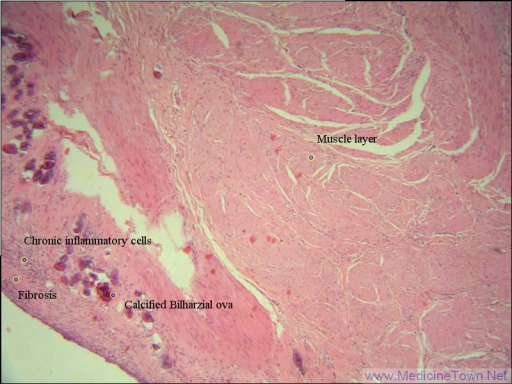
Bilharziasis of the urinary bladder

Section in the urinary bladder shows:

- The Mucosa shows areas of ulceration, hyperplasia or squamous metaplasia.
- The lamina propria shows bilharzial granulomatous reaction formed of:
 - * Bilharzial ova: fresh red rounded or oval according to direction of the sectioning with terminal spine may be seen & covered with yellowish brown refractile shell. Meracidium epithelium with pin point nuclei may be seen.
 - * Chronic inflammatory reaction (eosinophils, plasma cells, macrophages, lymphocytes & foreign



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Muscle layer

Chronic inflammatory cells

Fibrosis

Calcified Bilharzial ova

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 021

System : Urinary

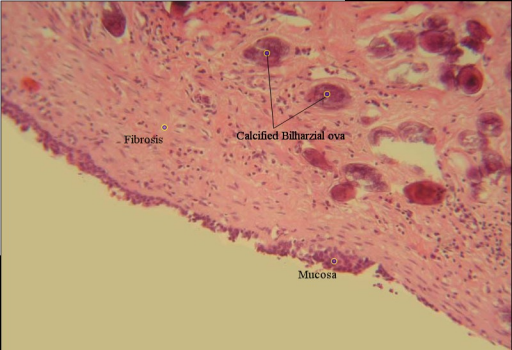
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Fibrosis

Calcified Bilharzial ova

Mucosa

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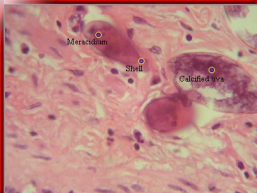
Slide No : 021

System : Urinary

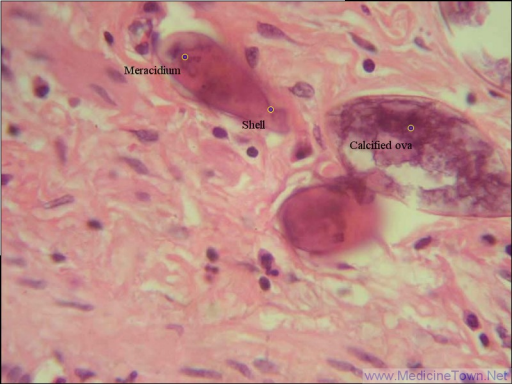
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Meracidium

Shell

Calcified ova

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 022

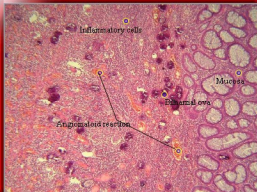
System : Digestive

Bilharziasis of the large intestine

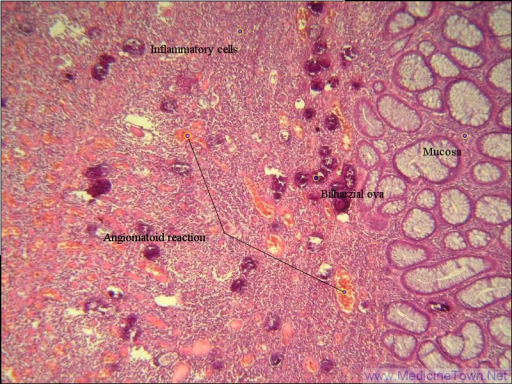
Section in the large intestine shows:

-The submucosa contains bilharzial granulomatous reaction formed of:

- * Bilharzial ova: fresh red, rounded or oval with lateral spine (may be seen) & covered with yellowish brown refractile shell. The meracidium has expansile cytoplasm & pin point nuclei.
- * Chronic inflammatory reaction (eosinophils, plasma cells, macrophages, lymphocytes & foreign body giant cells).
- * Granulation tissue & fibrosis.
- * Angiomatoid formation & bilharzial worms may be seen.



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Inflammatory cells

Mucosa

Bilharzial ova

Angiomatoid reaction

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 022

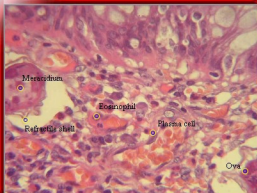
System : Digestive

Bilharziasis of the large intestine

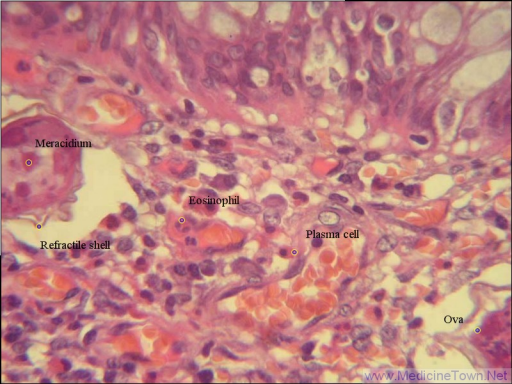
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Meracidium

Eosinophil

Plasma cell

Refractile shell

Ova

MEDICINETOWN ATLAS OF PATHOLOGY

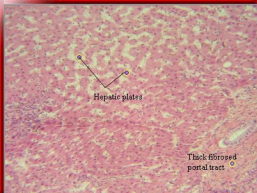
Slide No : 023

System : Digestive

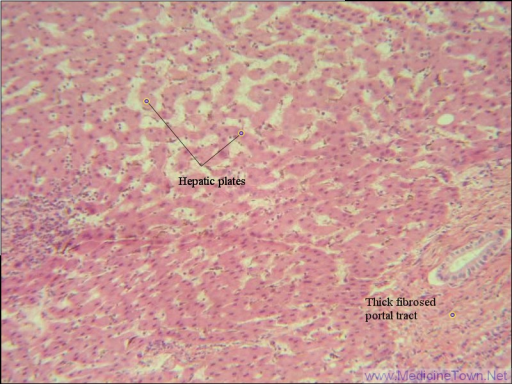
Bilharzial periportal fibrosis

Section in the liver shows:

- Preserved hepatic architecture.
- The portal tracts are wide & fibrosed with thick portal vein branches, thrombosis, proliferation of bile duct & bilharzial granulomatous reaction formed of:
 - * Bilharzial ova: blue calcified or fresh red, rounded or oval with terminal spine & covered with yellowish brown refractile shell.
 - * Chronic inflammatory reaction (eosinophils, plasma cells, macrophages, lymphocytes & foreign body giant cells).
 - * Granulation tissue & fibrosis.



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Hepatic plates

Thick fibrosed
portal tract

MEDICINETOWN ATLAS OF PATHOLOGY

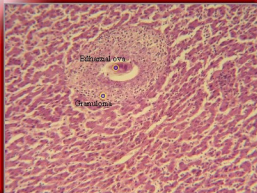
Slide No : 023

System : Digestive

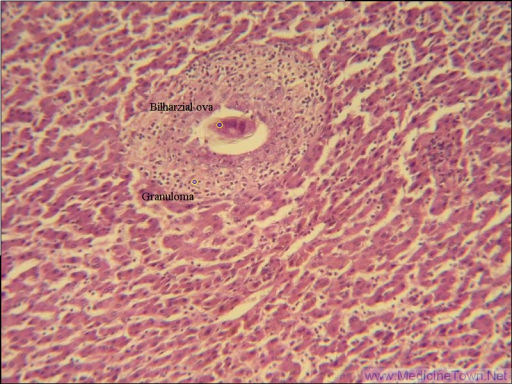
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Bilharzial ova

Granuloma

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 023

System : Digestive

Bilharzial periportal fibrosis

Section in the liver shows:

- Preserved hepatic architecture.
- The portal tracts are wide & fibrosed with thick portal vein branches, thrombosis, proliferation of bile duct & bilharzial granulomatous reaction formed of:
 - * Bilharzial ova: blue calcified or fresh red, rounded or oval with terminal spine & covered with yellowish brown refractile shell.
 - * Chronic inflammatory reaction (eosinophils, plasma cells, macrophages, lymphocytes & foreign body giant cells).
 - * Granulation tissue & fibrosis.



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Hepatocytes

Eosinophil

Ova

Macrophage

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 025

System : Female Reproductive

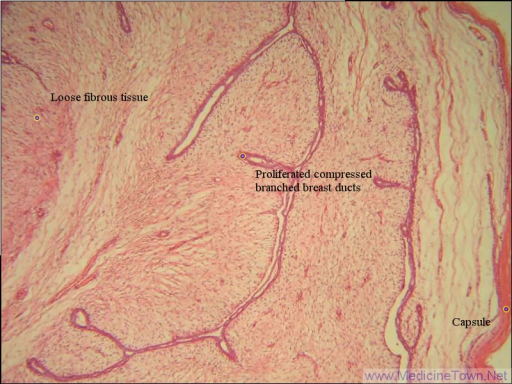
Fibro-adenoma (Breast)

Section shows a capsulated lobulated benign mixed tumor formed of two elements:

- 1- Loose fibrous tissue replacing the breast fat.
- 2- Proliferating breast ducts:
 - Rounded or oval with patent lumen & lined by inner cubical cells & outer flat cells (peri-canalicular fibroadenoma).
 - Elongated, compressed breast ducts with branching & invaginations by the fibrous tissue (intra-canalicular fibroadenoma).



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Loose fibrous tissue

This histological image shows a section of breast tissue stained with hematoxylin and eosin (H&E). The tissue is characterized by a dense network of pink-stained collagen fibers, which is the loose fibrous tissue. Interspersed within this stroma are several ductal structures. These ducts are notably thick-walled and have a complex, branched morphology, indicating proliferation and compression. The ducts are lined by a single layer of cuboidal epithelial cells. The overall appearance is consistent with a benign proliferative breast lesion, such as a sclerosing adenoma or a complex sclerosing lesion. The ducts vary in size and orientation, with some showing clear branching patterns. The surrounding stroma is densely packed with fibrous tissue, which appears as a fine, interwoven mesh of pink fibers. The overall color palette is dominated by the pink of the collagen and the purple of the nuclei.

Proliferated compressed
branched breast ducts

Capsule

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 025

System : Female Reproductive


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Loose fibrous tissue

This histological micrograph shows a section of breast tissue. The central feature is a ductal structure lined by a single layer of cuboidal epithelial cells. The surrounding stroma is composed of loose fibrous connective tissue, characterized by a network of collagen fibers and scattered spindle-shaped fibroblasts. The overall appearance is that of a benign ductal lesion, such as a fibroadenoma.

Proliferated duct epithelium

This label points to the inner lining of the duct, which shows a uniform layer of cuboidal epithelial cells. The cells are closely packed and exhibit a regular arrangement, consistent with a benign ductal epithelium.

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 026

System : Miscellaneous

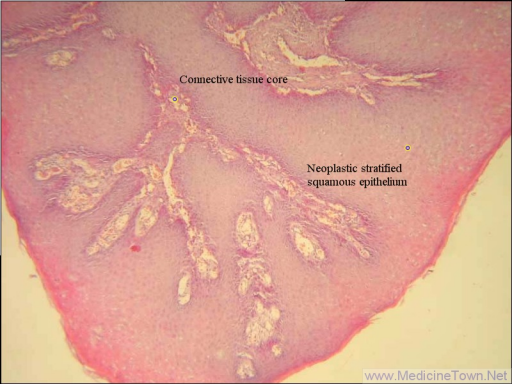
Squamous cell papilloma

Section of a compound branched papilloma shows:

- A central connective tissue core containing blood vessels, lymphatics & nerves.
- A cover of neoplastic squamous epithelium showing:
 - * Hyperkeratosis: increased thickness of keratin
 - * Parakeratosis: nucleated keratin layer.
 - * Neoplastic thickening of the prickle cell layer.
 - * Proliferation of the basal layer.



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Connective tissue core

This histological image shows a cross-section of skin. The upper portion is composed of a thick, multi-layered (stratified) squamous epithelium, which is stained pink. This epithelium is characterized by numerous layers of cells, with the most superficial layer being the most densely packed. The lower portion of the image shows a core of connective tissue, which is stained a lighter pink and contains several elongated, fibrous structures. The boundary between the epithelium and the connective tissue core is irregular and well-defined.

Neoplastic stratified
squamous epithelium

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 026

System : Miscellaneous

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Proliferated basal cell layer

Thick prickle cell layer

Hyperkeratosis

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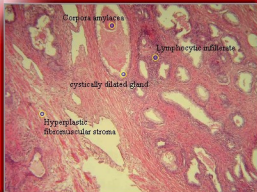
Slide No : 027

System : Male Reproductive

Senile prostatic hyperplasia

Section in the prostate shows variable-sized nodules formed by the hyperplastic prostatic tissue. Each nodule shows:

- Glands: increased in number (adenosis), variable in size & lined by one or more layers of columnar epithelium (epitheliosis). Some are cystically dilated and others show papillary projections (papillomatosis). The acini may contain laminated hyaline bodies (corpora amylacea).
- The stroma: shows hyperplastic fibromuscular tissue with focal lymphocytic infiltrate.



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Corpora amylacea

This histological section of the prostate gland shows several key features. A large, cystically dilated gland is visible in the upper left, containing a corpora amylacea. The surrounding stroma is hyperplastic and fibromuscular. A lymphocytic infiltrate is present in the lower right area. The overall architecture is disrupted, with irregular glandular structures and increased stromal density.

Lymphocytic infiltrate

cystically dilated gland

Hyperplastic
fibromuscular stroma

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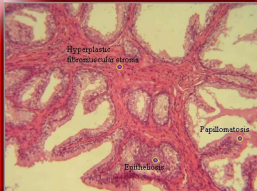
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Hyperplastic
fibromuscular stroma

This histological slide shows a cross-section of the prostate gland. The glandular architecture is characterized by irregular, crowded glandular units. The stroma between these glands is thickened and contains a high density of spindle-shaped cells, indicating hyperplasia. The glandular epithelium shows papillary infoldings into the lumen, a feature known as papillomatosis. The epithelial cells themselves exhibit hyperplasia, with an increased number of cells and some nuclear atypia, referred to as epitheliosis. The overall appearance is consistent with benign prostatic hyperplasia (BPH).

Papillomatosis

Epitheliosis

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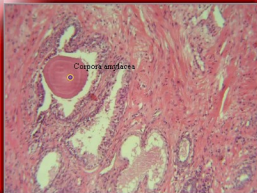
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A histological section of the uterine wall stained with hematoxylin and eosin (H&E). The image shows a large, circular, eosinophilic (pink) structure with concentric lamellations, labeled as a corpus amylaceum. This structure is surrounded by a layer of decidual tissue. The surrounding myometrium consists of bundles of smooth muscle fibers. Several cross-sections of uterine blood vessels are visible, showing their characteristic structure with an internal elastic lamina and surrounding smooth muscle.

Corpora amylacea

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 028

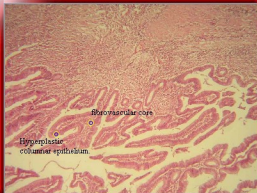
System : Digestive

Columnar cell papilloma

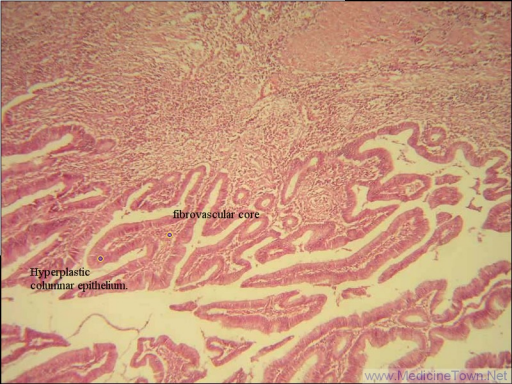
Section in the large intestine shows

mucosal exophytic growth forming villous papillary projections composed of

- Core: Delicate fibrovascular connective tissue
- Covering: hyperplastic over crowded mucin-secreting columnar epithelium.



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fibrovascular core

Hyperplastic
columnar epithelium.

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 028

System : Digestive

Columnar cell papilloma

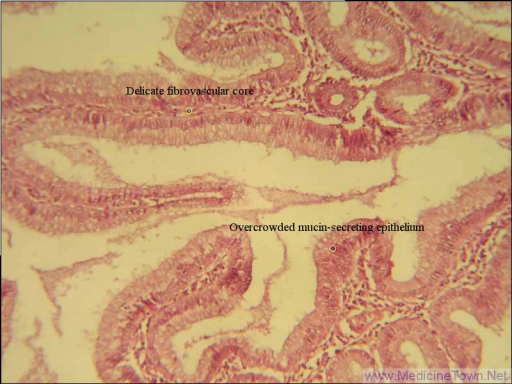
Section in the large intestine shows

mucosal exophytic growth forming villous papillary projections composed of

- Core: Delicate fibrovascular connective tissue
- Covering: hyperplastic overcrowded mucin-secreting columnar epithelium.



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Delicate fibrovascular core

This histological image shows a cross-section of glandular tissue. The glands are lined by a mucin-secreting epithelium. The cores of these glands are delicate and fibrovascular. The epithelium is crowded, and the overall structure is characteristic of a mucin-secreting neoplasm.

Overcrowded mucin-secreting epithelium

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 028

System : Digestive

Columnar cell papilloma

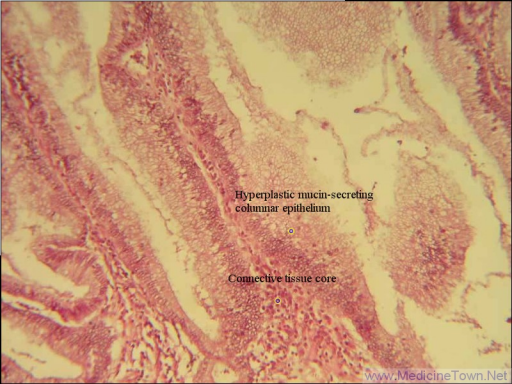
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- Covering: hyperplastic over crowded mucin-secreting columnar epithelium.



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Hyperplastic mucin-secreting
columnar epithelium

This histological image shows a cross-section of a polypoid lesion. The surface is covered by a thick, multi-layered layer of columnar epithelial cells. These cells are hyperplastic, meaning there is an increased number of cells. Many of these cells contain pale, foamy cytoplasm, which is characteristic of mucin-secreting cells. The epithelium is organized into a complex, glandular pattern. In the center of the lesion, there is a core of loose connective tissue, which is less cellular and more fibrous in appearance. The overall structure is typical of a hyperplastic polyp.

Connective tissue core

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 029

System : Miscellaneous

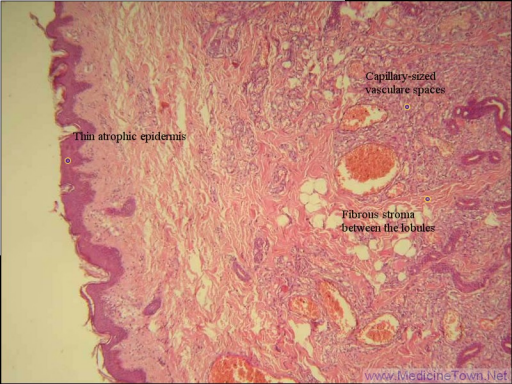
Capillary haemangioma

Section of the skin shows:

- The epidermis: Thin & atrophic.
- The dermis: contains a non-capsulated hamartomatous lesion formed of:
 - Lobules of small capillary-sized spaces variable in shape (round, oval, irregular or obliterated) lined by flat endothelial cells and filled with blood and separated from each other.
 - Solid areas of immature endothelial buds.
 - Delicate fibrous stroma in between.



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Thin atrophic epidermis

This histological image shows a cross-section of a tumor. On the left, the epidermis is thin and atrophic. The underlying dermis contains numerous lobules of tumor cells. Between these lobules is a dense, fibrous stroma. Small, capillary-sized vascular spaces are visible within the stroma. The overall appearance is characteristic of a well-differentiated tumor with a desmoplastic reaction.

Capillary-sized
vasculare spaces

Fibrous stroma
between the lobules

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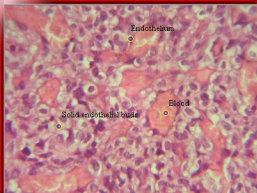
Slide No : 029

System : Miscellaneous

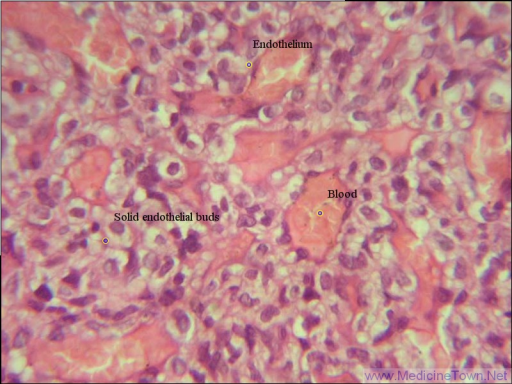
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Endothelium

Blood

Solid endothelial buds

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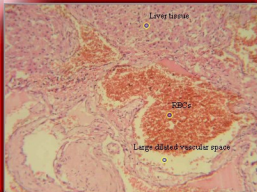
Slide No : 030

System : Digestive

Cavernous haemangioma

Section of the skin shows:

- The epidermis: Thin & atrophic.
- The dermis: contains a non-capsulated hamartomatous lesion formed of:
 - Lobules of small capillary-sized spaces variable in shape (round, oval, irregular or obliterated) lined by flat endothelial cells and filled with blood and separated from each other.
 - Solid areas of immature endothelial buds.
 - Delicate fibrous stroma in between.



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Liver tissue

This histological image shows a section of liver tissue stained with hematoxylin and eosin (H&E). The background consists of liver parenchyma with hepatocytes and sinusoids. A prominent feature is a large, dilated vascular space, likely a central vein or sinusoid, which is filled with a dense mass of red blood cells (RBCs). The vessel wall is visible, showing a thin layer of endothelial cells. The overall appearance is consistent with a vascular lesion or congestion in the liver.

RBCs

Large dilated vascular space

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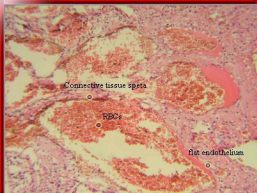
Slide No : 030

System : Digestive

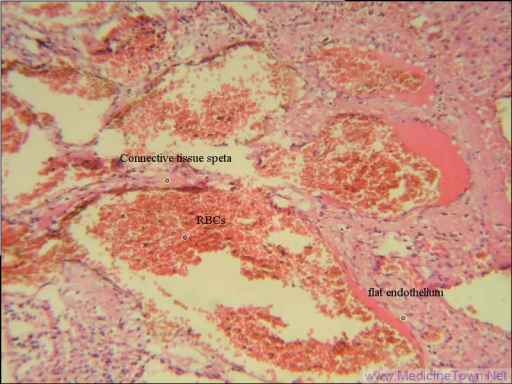
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Connective tissue speta

RBCs

flat endothelium

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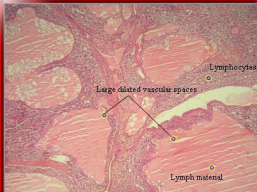
Slide No : 031

System : Muscular

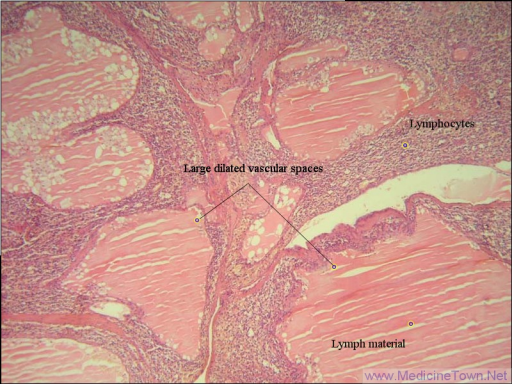
Cavernous lymphangioma

Specimen shows :

A non capsulated hamartomatous lesion formed of large dilated irregular communicating vascular spaces lined by flat endothelial cells and contain homogenous pink material (lymph). The spaces are separated by connective tissue septa. Mature lymphocytes are found in the connective tissue septa or inside the lymph.



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Large dilated vascular spaces

Lymphocytes

Lymph material

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 031

System : Muscular

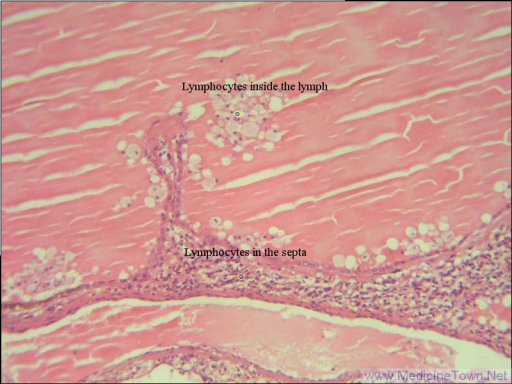
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Lymphocytes inside the lymph

This histological image shows skeletal muscle tissue with a prominent lymphocytic infiltrate. The muscle fibers are arranged in parallel bundles. A central vertical structure, likely a lymphatic vessel, is filled with a dense population of small, dark-staining lymphocytes. A horizontal septum, also densely packed with lymphocytes, crosses the lower portion of the image. Small blue circles highlight individual lymphocytes within the vessel and the septum.

Lymphocytes in the septa

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 032

System : Miscellaneous

Lipoma

A capsulated benign tumor composed of:

- Outer fibrous capsule.
- Fibrous septa dividing the tumor into lobules & contain blood vessels.
- Lobules of mature fat cells: large polygonal cells with vacuolated cytoplasm & flat eccentric nuclei (signet ring appearance).
- Few embryonic fat cells: small rounded cells with basophilic cytoplasm & small central nuclei.



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Mature fat cells

This histological image shows a section of adipose tissue. The majority of the field is composed of mature fat cells, which are large and pale with thin, clear cytoplasm and thin cell membranes. A distinct, darker, fibrous capsule is visible, separating the adipose tissue from the underlying connective tissue. The capsule contains several small, dark-staining structures, likely blood vessels or nerves. Two blue dots are placed on the image: one in the adipose tissue and one in the capsule.

Cap^su^le

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 032

System : Miscellaneous

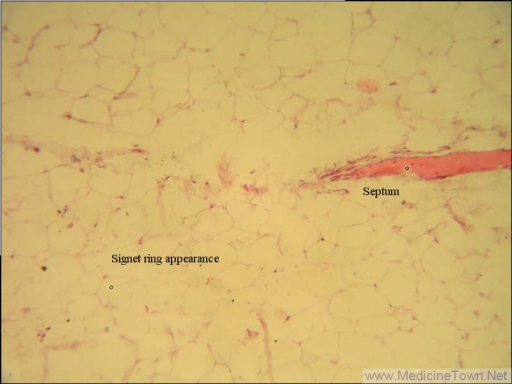
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Signet ring appearance

Septum

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Slide No : 033

System : Nervous

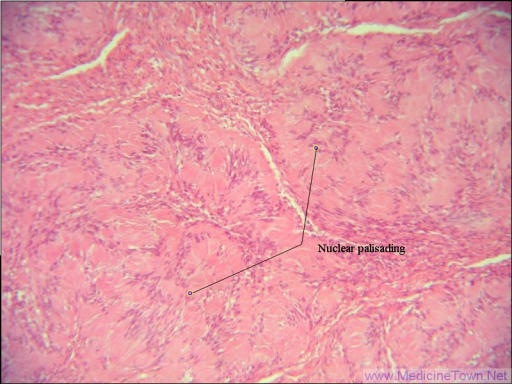
Neurilemmoma (Schwannoma)

A capsulated lobulated benign tumor composed of:

- Interlacing bundles formed of spindle parallel cells with spindle rod shaped nuclei showing nuclear palisading.
- Cells are separated by delicate pink reticular fibers.



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Nuclear palisading

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 033

System : Nervous

Neurilemmoma (Schwannoma)

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- Interlacing bundles formed of spindle parallel cells with spindle rod shaped nuclei showing nuclear palisading.
- Cells are separated by delicate pink reticular fibers.



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A high-magnification photomicrograph of a tissue section stained with hematoxylin and eosin (H&E). The image shows a dense population of spindle-shaped cells. The background is filled with a network of fine, pink-stained fibers, which are labeled as "Delicate fibers". The nuclei of the cells are elongated and spindle-shaped, stained dark purple, and are labeled as "Spindle nuclei". The overall appearance is characteristic of a spindle cell neoplasm or a reactive process in connective tissue.

Delicate fibers

Spindle nuclei

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Slide No : 035

System : Skeletal

Osteochondroma (Ecchondroma)

A non capsulated hamartomatous lesion composed of two elements:

- A cap of hyaline cartilage: normal chondrocytes arranged perpendicular to the perichondrium & surrounded by hyaline matrix.
- Cancellous bone: trabeculae separated by bone marrow fat & haemopoietic cells.



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Cartilaginous cap

This histological image shows a section of bone tissue. The upper portion features a dense layer of cartilage, the cartilaginous cap, characterized by numerous small, rounded chondrocytes embedded in a matrix. Below this, the bone trabeculae are visible as irregular, interconnected bony structures. The lower right area contains the bone marrow, which is a soft, porous tissue. The entire section is stained with hematoxylin and eosin (H&E), giving it a pink and purple appearance.

Bone trabeculae

Bone marrow

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 035

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Cartilagenous cap

Bone marrow

Bone trabeculae



MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 035

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Bone trabeculae

Bone marrow fat

Hæmopoietic cells

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 036

System : Miscellaneous

A non capsulated hamartomatous lesion composed of Groups of melanocytes (Naevus cells):

- Small, rounded or polyhedral with scanty cytoplasm and large vesicular nuclei.
- The cells are separated by collagen bundles & present in the upper part of the dermis.
- The melanin pigment is present in the melanocytes, melanophages or free (extra-cellular).

Benign melanoma (Naevus)



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Dermis

Nevus cells

Epidermis

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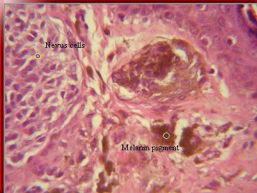
Slide No : 036

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This is a photomicrograph of a skin biopsy stained with hematoxylin and eosin (H&E). The image shows a dense population of cells with varying degrees of pigmentation. A large, central, roughly circular structure is filled with dark brown pigment, likely melanin. The surrounding tissue consists of numerous smaller, spindle-shaped or rounded cells with pale cytoplasm and dark nuclei, some of which are also pigmented. The overall architecture suggests a melanocytic lesion, such as a nevus or melanoma.

Nevus cells

Melanin pigment

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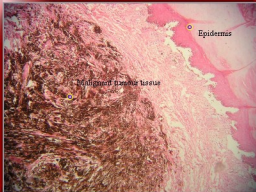
Slide No : 037

System : Miscellaneous

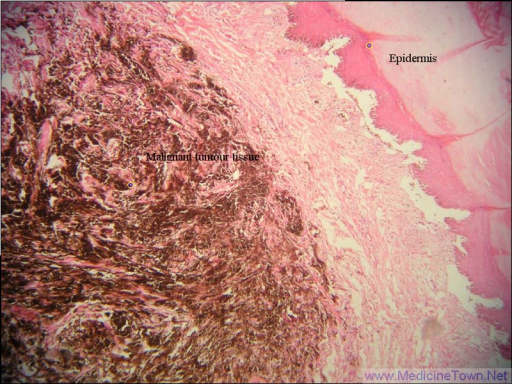
Malignant melanoma

Section shows a highly malignant tumor formed of groups of malignant melanocytes:

- Rounded or polyhedral (melanocarcinoma) or spindle (melanosarcoma) showing the criteria of malignancy (pleomorphic cells with large dark hyperchromatic pleomorphic nuclei with abnormal mitosis & prominent nucleoli).
- The cells infiltrate the dermis with ulceration of the epidermis, hemorrhage & necrosis with excess melanin formation in the cytoplasm or outside the cells.



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Epidermis

Malignant tumour tissue

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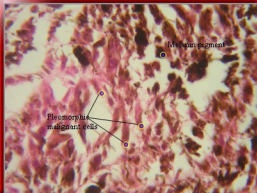
Slide No : 037

System : Miscellaneous

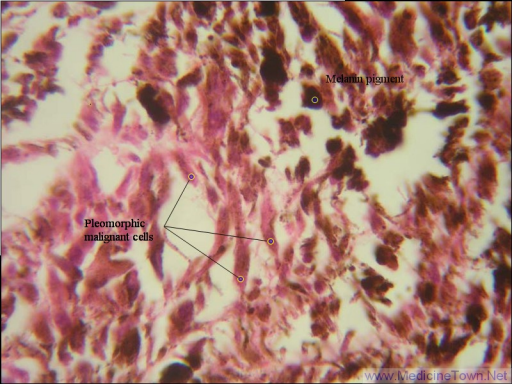
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Melanin pigment

Pleomorphic malignant cells

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 037

System : Miscellaneous

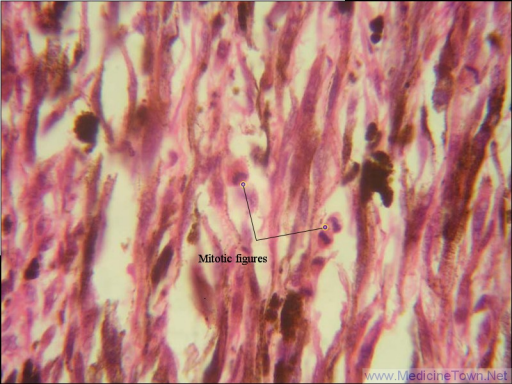
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Mitotic figures

MEDICINETOWN ATLAS OF PATHOLOGY

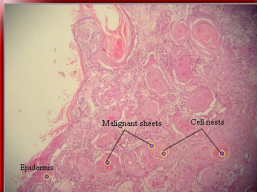
Slide No : 038

System : Miscellaneous

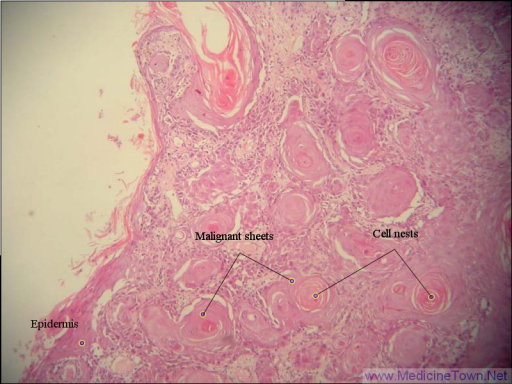
Squamous cell carcinoma

A specimen in the skin showing:

- The epidermis: is ulcerated.
- The dermis: is infiltrated by sheets of malignant squamous epithelium show the criteria of malignancy (pleomorphic cells having dark hyperchromatic pleomorphic nuclei with abnormal mitosis and prominent nucleoli) that form cell nests formed of (peripheral prickle cell layers, intermediate flat cells and central keratinization).



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Malignant sheets

Cell nests

Epidermis

MEDICINETOWN ATLAS OF PATHOLOGY

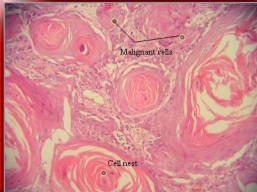
Slide No : 038

System : Miscellaneous

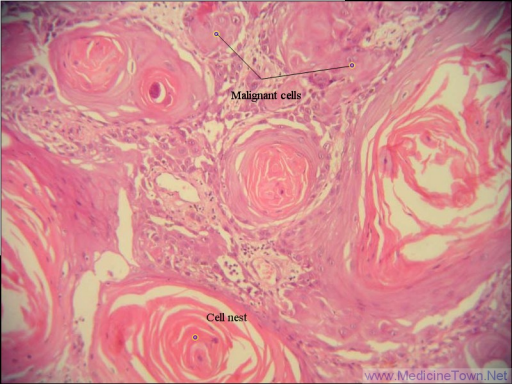
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Malignant cells

Cell nest

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 038

System : Miscellaneous

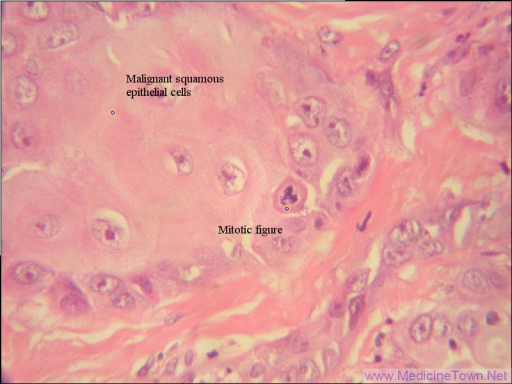
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Malignant squamous
epithelial cells

This histological image shows a field of malignant squamous epithelial cells. The cells are characterized by their large size, pleomorphic nuclei, and prominent nucleoli. The cytoplasm is abundant and eosinophilic. A mitotic figure is visible, showing a cell in the process of division with condensed chromosomes. The overall architecture is disorganized, and the cells are arranged in nests and cords, typical of squamous cell carcinoma.

Mitotic figure

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 038

System : Miscellaneous

Squamous cell carcinoma

A specimen in the skin showing:

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Malignant cells

Cell nest

MEDICINETOWN ATLAS OF PATHOLOGY

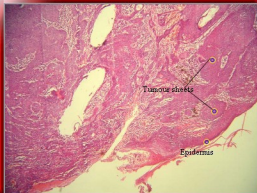
Slide No : 039

System : Miscellaneous

Basal cell carcinoma

A specimen in the skin showing:

- The epidermis: is ulcerated.
- The dermis: is infiltrated by sheets & groups of malignant basal cells which show the criteria of malignancy (pleomorphic small cells with dark hyperchromatic pleomorphic nuclei with abnormal mitosis & prominent nucleoli). The sheets of malignant cells show basal cells with peripheral palisading. No cell nest formation or central keratinization.



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Tumour sheets

Epidermis

MEDICINETOWN ATLAS OF PATHOLOGY

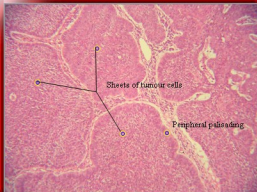
Slide No : 039

System : Miscellaneous

Basal cell carcinoma

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Sheets of tumour cells

Peripheral palisading

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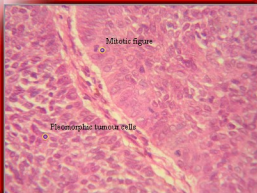
Slide No : 039

System : Miscellaneous

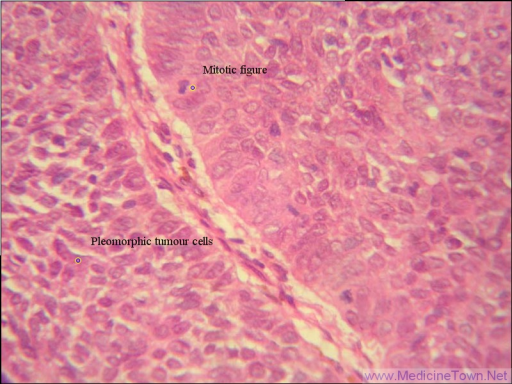
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Mitotic figure

Pleomorphic tumour cells

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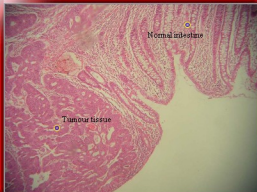
Slide No : 040

System : Digestive

Adenocarcinoma (colon)

Specimen in the colon shows:

- Area of normal intestine.
- Other areas are infiltrated by malignant acini characterized by:
 - * Irregular in shape with no basement membrane.
 - * Lined by malignant cells (pleomorphic cells with hyperchromatic pleomorphic nuclei with abnormal mitosis and prominent nucleoli).
 - * Irregular eccentric or obliterated lumen.
 - * Some are cystically dilated (cystadenocarcinoma) or with papillae (papillary cystadenocarcinoma).
 - * Present in abnormal sites (infiltrate submucosa, muscularis or serosa).



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Normal intestine

Tumour tissue

MEDICINETOWN ATLAS OF PATHOLOGY

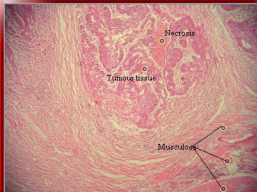
Slide No : 040

System : Digestive

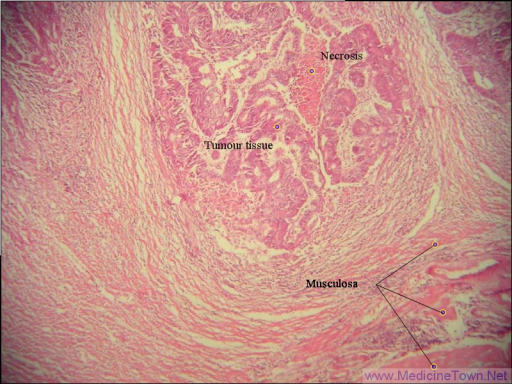
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Necrosis

Tumour tissue

Musculosa

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 040

System : Digestive

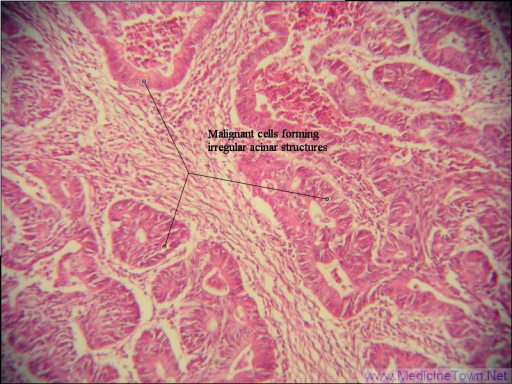
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Malignant cells forming
irregular acinar structures

This histological image shows a dense population of malignant cells. The cells are arranged in irregular, glandular (acinar) structures, which is characteristic of adenocarcinoma. The acini are of varying sizes and shapes, and the cells within them show nuclear atypia, including enlarged nuclei and prominent nucleoli. The overall architecture is disorganized, with a loss of normal tissue structure. Three black lines with small blue dots at their ends point from the central text to specific areas of these irregular acinar structures.

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 040

System : Digestive

Adenocarcinoma (colon)

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Malignant cells

Mitosis

MEDICINETOWN ATLAS OF PATHOLOGY

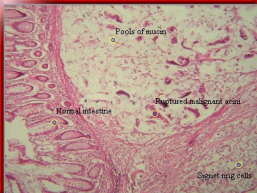
Slide No : 041

System : Digestive

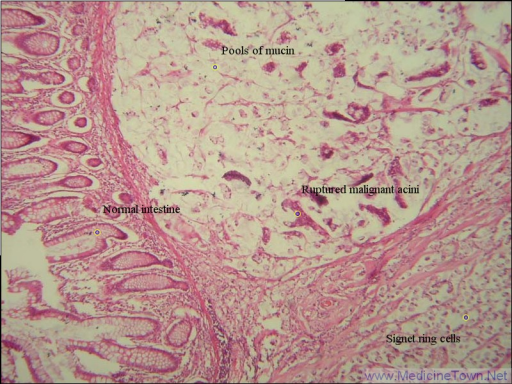
Muroid adenocarcinoma (colon)

Specimen in the colon shows:

- Area of normal intestine.
- The wall is infiltrated by pools of pale blue mucin containing scattered signet ring cells and ruptured malignant acini characterized by:
 - * Lined by malignant cells (pleomorphic cells with hyperchromatic pleomorphic nuclei with abnormal mitosis and prominent nucleoli).
 - * Irregular in shape with no basement membrane.
 - * There are areas of hemorrhage, necrosis & round cell infiltrate.



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Pools of mucin

Ruptured malignant acini

Normal intestine

Signet ring cells

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 041

System : Digestive

Mucoid adenocarcinoma (colon)

Specimen in the colon shows:

- Area of normal intestine.
- The wall is infiltrated by pools of pale blue mucin containing scattered signet ring cells and ruptured malignant acini characterized by:
 - * Lined by malignant cells (pleomorphic cells with hyperchromatic pleomorphic nuclei with abnormal mitosis and prominent nucleoli).
 - * Irregular in shape with no basement membrane.
 - * There are areas of hemorrhage, necrosis & round cell infiltrate.



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Mucin

Strips of malignant cells

Signet ring cell

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 041

System : Digestive

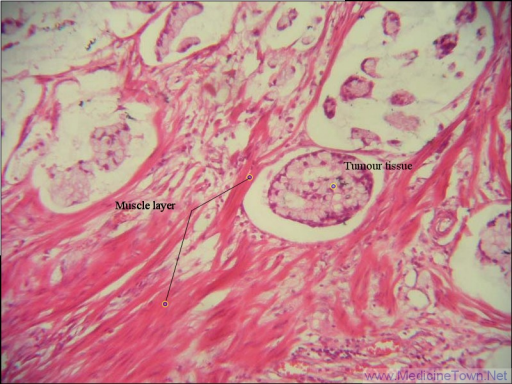
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Muscle layer

Tumour tissue

MEDICINETOWN ATLAS OF PATHOLOGY

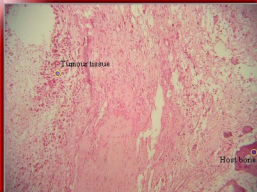
Slide No : 042

System : Skeletal

Osteosarcoma

A highly malignant tumor composed of:

- Malignant osteoblasts (sarcoma cells): pleomorphic spindle cells with pleomorphic dark nuclei that may fuse to form tumor giant cells.
- Osteoid & osseous matrix: homogenous pink and lace-like in between the cells.
- Areas of haemorrhage & necrosis.



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This histological micrograph displays a transition from tumour tissue on the left to host bone on the right. The tumour tissue is characterized by a dense population of cells with hyperchromatic nuclei and scant cytoplasm, arranged in a disorganized pattern. The host bone, on the right, shows a more organized structure with visible trabeculae and osteons. The interface between the two tissues is marked by a thin layer of connective tissue.

Tumour tissue

Host bone

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 042

System : Skeletal

Osteosarcoma

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Pleomorphic
malignant cells

Osteoid

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 042

System : Skeletal

Osteosarcoma

A highly malignant tumor composed of:

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- Osteoid & osseous matrix: homogenous pink and lace-like in between the cells.
- Areas of haemorrhage & necrosis.



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A high-magnification photomicrograph of a tissue section stained with hematoxylin and eosin (H&E). The image shows a field of cells with varying morphology. A prominent feature is a large, multinucleated cell, which is the tumor giant cell. This cell has a large, pale, foamy or vacuolated cytoplasm and several dark, round nuclei. The surrounding tissue consists of smaller, more uniform cells with pink cytoplasm and dark nuclei. The overall appearance is characteristic of a malignant neoplasm, possibly a sarcoma or carcinoma with giant cell formation.

Tumor giant cell

MEDICINETOWN ATLAS OF PATHOLOGY

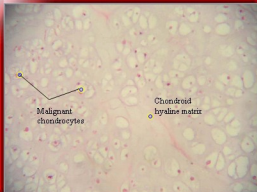
Slide No : 043

System : Skeletal

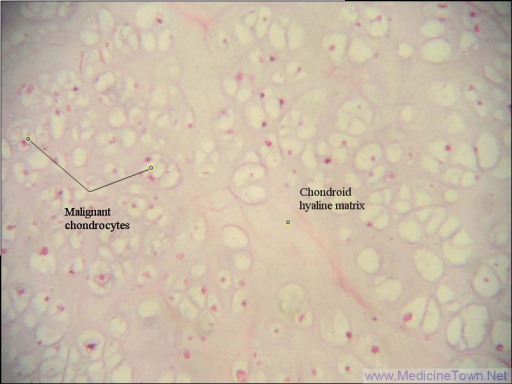
Chondrosarcoma

A malignant tumor composed of:

- Malignant chondrocytes:
Rounded with clear cytoplasm & few mitoses (in well Differentiated tumors) Or pleomorphic spindle cells with frequent mitoses (in undifferentiated tumors).
- Chondroid hyaline matrix abundant if differentiated & few if less differentiated.
- Areas of haemorrhage, necrosis & calcification are present.



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Malignant
chondrocytes

Chondroid
hyaline matrix

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 043

System : Skeletal

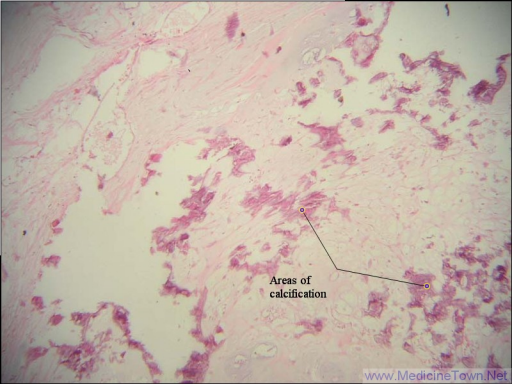
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**Areas of
calcification**

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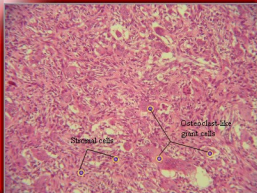
Slide No : 044

System : Skeletal

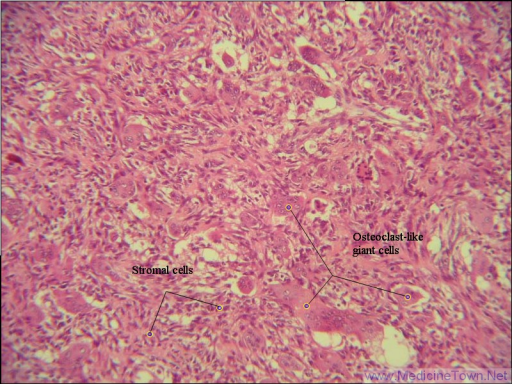
Giant cell tumor (Osteoclastoma)

A locally malignant tumor composed of:

- Stromal cells: spindle cells with dark hyperchromatic nuclei & variable number of mitosis.
- Several reactive osteoclast-like giant cells: evenly distributed large cells with up to 100 small round vesicular nuclei.
- Scanty fibro-vascular stroma.



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Stromal cells

**Osteoclast-like
giant cells**

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 044

System : Skeletal

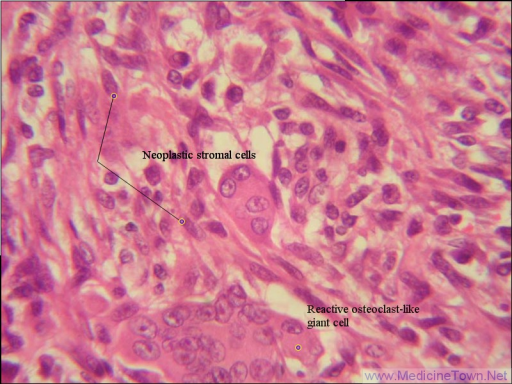
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- Scanty fibro-vascular stroma.



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Neoplastic stromal cells

This histological slide shows a dense population of spindle-shaped cells with hyperchromatic nuclei, characteristic of neoplastic stromal cells. A large, multinucleated cell with foamy or vacuolated cytoplasm is also present, identified as a reactive osteoclast-like giant cell. The overall appearance is consistent with a malignant soft tissue tumor, such as a sarcoma.

Reactive osteoclast-like
giant cell

MEDICINETOWN ATLAS OF PATHOLOGY

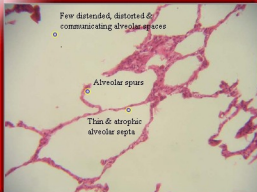
Slide No : 045

System : Respiratory

Emphysema

Section of the lung shows:

- Alveolar spaces: are few distended & distorted. Some of them rupture & communicate with each other to form wide spaces with remnants of septa (alveolar spurs).
- Alveolar septa: are thin & atrophic with decrease of elastic tissue. The alveolar capillaries are compressed.
- The bronchioles: show chronic bronchiolitis.
- Areas of anthracosis.



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Few distended, distorted & communicating alveolar spaces

Alveolar spurs

Thin & atrophic alveolar septa

MEDICINETOWN ATLAS OF PATHOLOGY

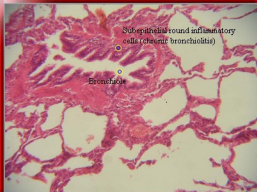
Slide No : 045

System : Respiratory

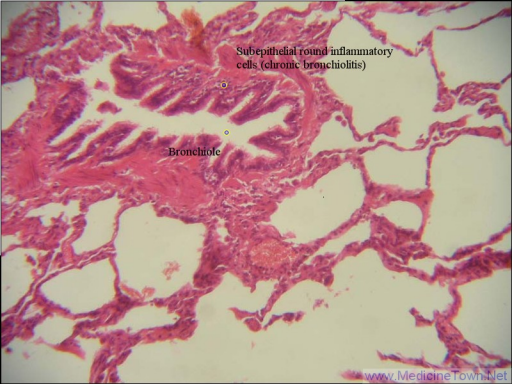
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- The bronchioles: show chronic bronchiolitis.
- Areas of anthracosis.



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This histological image shows a cross-section of lung tissue stained with hematoxylin and eosin (H&E). The central feature is a bronchiole, which is a small airway. The wall of this bronchiole is significantly thickened due to an inflammatory infiltrate. This infiltrate consists of numerous small, round cells, which are identified as subepithelial round inflammatory cells. The presence of these cells is characteristic of chronic bronchiolitis. The surrounding lung parenchyma shows the typical architecture of alveolar sacs, though they are partially obscured by the thickened bronchiole wall.

Subepithelial round inflammatory cells (chronic bronchiolitis)

Bronchiole

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Slide No : 046

System : Respiratory

Rhinoscleroma

Section in the nasal masses show:

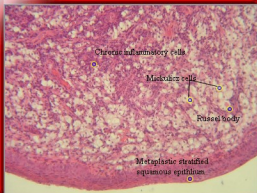
-The epithelium: metaplastic squamous epithelium.

-The sub-epithelium contains:

* A background of chronic inflammatory cells: plasma cells, macrophages & lymphocytes).

* Mickulicz cells: groups of vacuolated macrophages engulfing the bacteria & undergo hydropic degeneration.

* Russel bodies: scattered red homogenous oval bodies with pyknotic eccentric nuclei due to hyaline degeneration of plasma cells.



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Chronic inflammatory cells

Minkowicz cells

Russel body

Metaplastic stratified
squamous epithelium

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 046

System : Respiratory

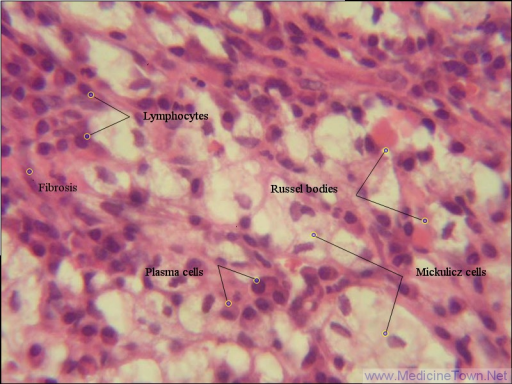
Rhinoscleroma

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Lymphocytes

Fibrosis

Russel bodies

Plasma cells

Mickulicz cells

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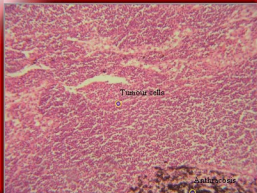
Slide No : 047

System : Respiratory

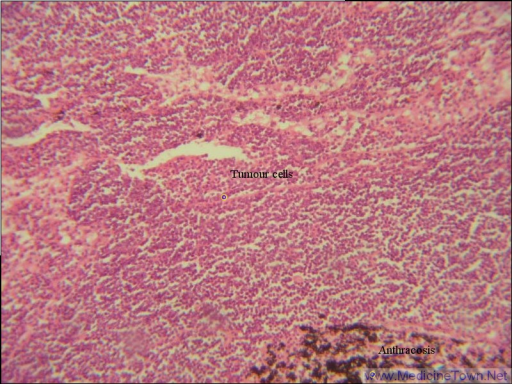
Oat cell carcinoma

Section shows infiltration of the lung by

- A non-capsulated malignant tumor formed of groups of small, lymphocytes-like malignant cells. The cells are oval, rounded or spindle with scanty cytoplasm & oval dark nuclei (oat cells). The cells are separated by scanty fibrous stroma.
- Some areas of the lung show collapse or compensatory emphysema.
- Other areas show haemorrhage and necrosis.



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Tumour cells



Anthracosis

MEDICINETOWN ATLAS OF PATHOLOGY

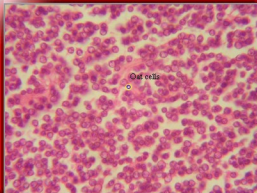
Slide No : 047

System : Respiratory

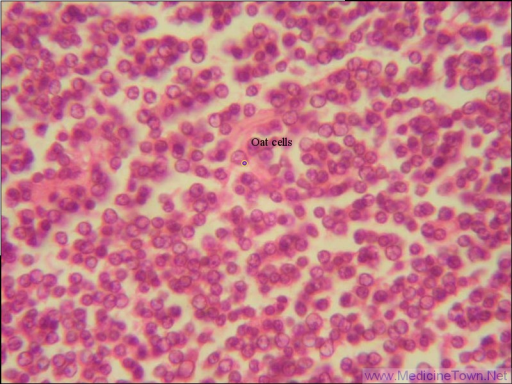
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Oat cells

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 047

System : Respiratory

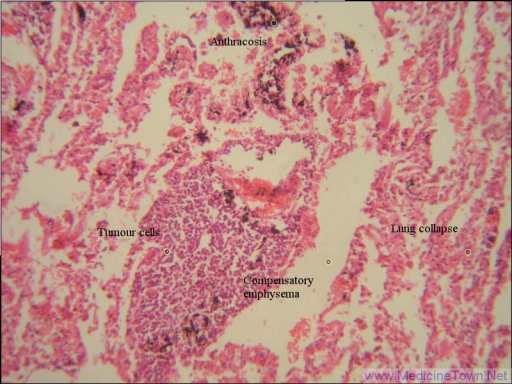
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Anthracosis

Tumour cells

Compensatory
emphysema

Lung collapse

MEDICINETOWN ATLAS OF PATHOLOGY

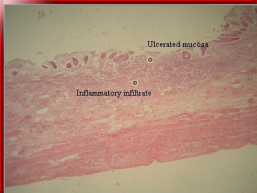
Slide No : 048

System : Digestive

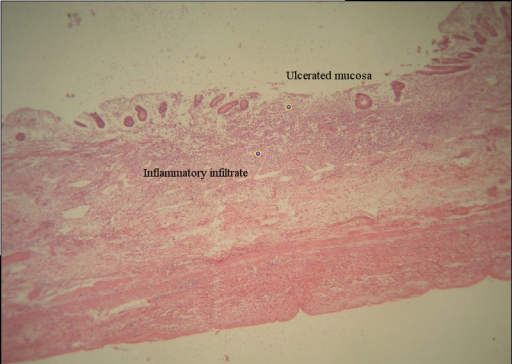
Section in the small intestine shows:

- The mucosa is ulcerated at the areas of peyer's patches with underlying typhoid reaction.
- The submucosa shows acute inflammation: dilated congested capillaries & large number of macrophages engulfing bacilli & RBCs, lymphocytes & plasma cells.
- The floor, base & margins of the ulcer show: necrosis & granulation tissue.

Typhoid ulcer (small intestine)



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Ulcerated mucosa

Inflammatory infiltrate

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 048

System : Digestive

Typhoid ulcer (small intestine)

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Mucosa with
ulceration

This histological slide shows a section of the ileum. The mucosal layer is significantly ulcerated, with the surface epithelium missing in several areas, exposing the underlying lamina propria. A prominent Peyer's patch, a secondary lymphoid follicle, is visible in the submucosa. The patch is characterized by a dense collection of lymphocytes and a well-defined capsule. The surrounding mucosa contains numerous crypts and villi, some of which appear distorted due to the inflammatory process.

Peyer's patch

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 048

System : Digestive

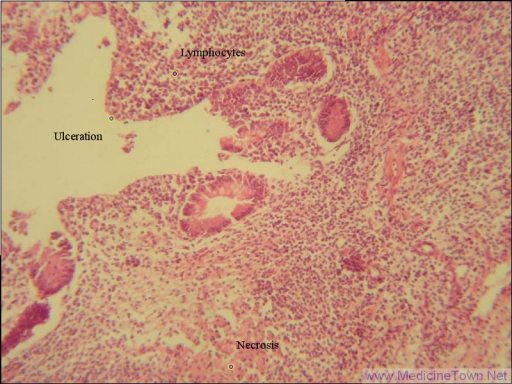
Section in the small intestine shows:

- The mucosa is ulcerated at the areas of peyer's patches with underlying typhoid reaction.
- The submucosa shows acute inflammation: dilated congested capillaries & large number of macrophages engulfing bacilli & RBCs, lymphocytes & plasma cells.
- The floor, base & margins of the ulcer show: necrosis & granulation tissue.

Typhoid ulcer (small intestine)



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Lymphocytes

Ulceration

Necrosis

MEDICINETOWN ATLAS OF PATHOLOGY

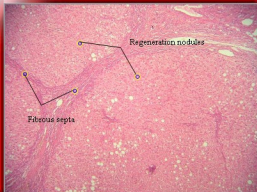
Slide No : 049

System : Digestive

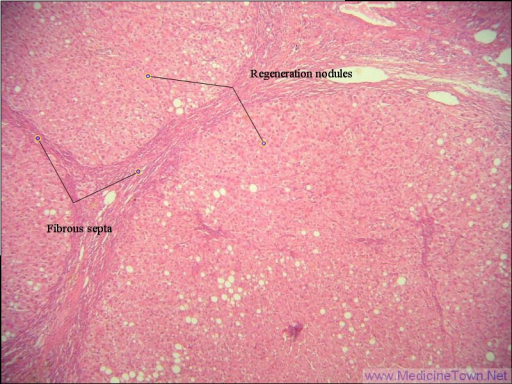
Liver cirrhosis

Section in the liver shows:

- Loss of normal hepatic architecture with replacement by:
- Regeneration nodules: Variable in size & shape formed of irregular cords with loss of sinusoidal pattern. The cells are variable in size with bi-nucleated forms & variable fat vacuoles. The central veins are absent eccentric or doubled.
- Fibrous septa: thick around regeneration nodules containing chronic inflammatory cells, bile duct proliferation & capillaries.



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Regeneration nodules

Fibrous septa

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 049

System : Digestive

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Variable fat vacuoles

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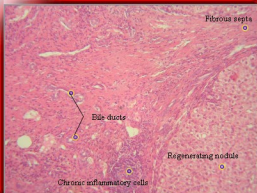
Slide No : 049

System : Digestive

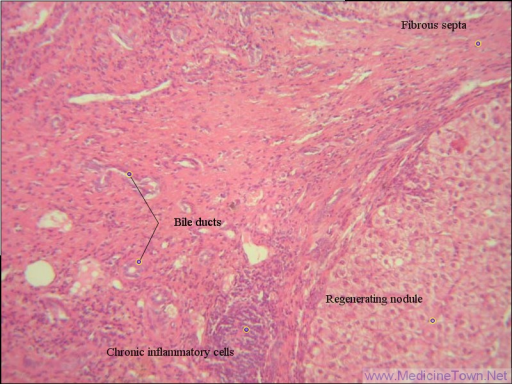
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Fibrous septa

Bile ducts

Regenerating nodule

Chronic inflammatory cells

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 050

System : Digestive

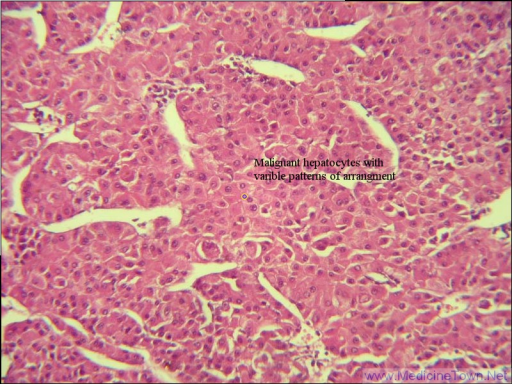
Hepatocellular carcinoma (Hepatoma)

Section of the liver shows:

- A tumor proliferation formed of sheets, cords, acini & trabeculae formed of malignant hepatocytes.
- The cells are polyhedral, pleomorphic with large hyperchromatic pleomorphic nuclei & frequent mitoses. The tumor contains scanty fibro-vascular stroma.
- The rest of the liver shows the picture of liver cirrhosis (loss of normal hepatic architecture with replacement by regeneration nodules surrounded by fibrous septa).



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Malignant hepatocytes with
variable patterns of arrangement

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 050

System : Digestive

Hepatocellular carcinoma (Hepatoma)

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Malignant cells

Bile

Sinusoidal space

Thick trabeculae of
tumour cells

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 051

System : Digestive

Metastatic adenocarcinoma (liver)

Section in the liver shows :

normal architecture with infiltration by malignant acini.

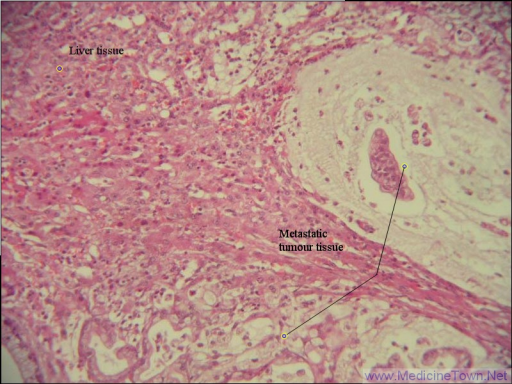
-The acini are irregular in shape with no basement membrane. They are lined by malignant cells (pleomorphic cells with hyperchromatic pleomorphic nuclei with abnormal mitosis & prominent nucleoli). The acini are surrounded by desmoplastic stroma & contain areas of mucoid degeneration.



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Liver tissue

Metastatic
tumour tissue



MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 051

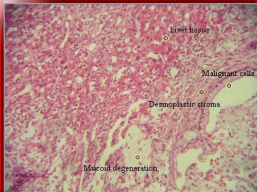
System : Digestive

Metastatic adenocarcinoma (liver)

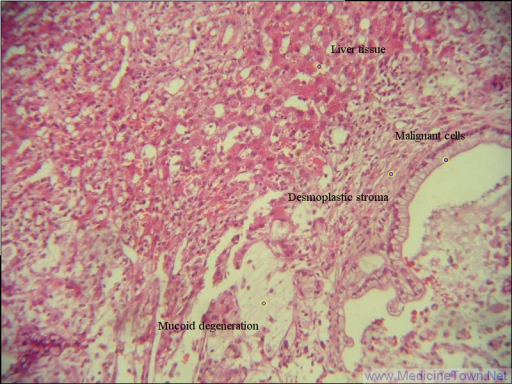
Section in the liver shows :

normal architecture with infiltration by malignant acini.

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Liver tissue

Malignant cells

Desmoplastic stroma

Mucoïd degeneration

MEDICINETOWN ATLAS OF PATHOLOGY

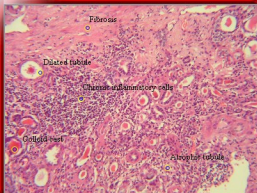
Slide No : 053

System : Urinary

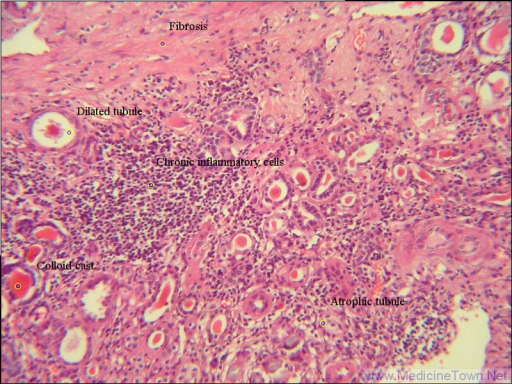
Chronic pyelonephritis

Section in the kidney shows that:

- The interstitial tissue shows chronic non-specific inflammatory reaction in the form of chronic inflammatory cells (lymphocytes, plasma cells, macrophages), end arteritis obliterans & fibrosis.
- The tubules some are fibrotic, others are cystically dilated & contain colloid cast resembling thyroid follicles (thyroidization).
- The glomeruli are few in number & surrounded by peri-glomerular fibrosis.



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Fibrosis

Dilated tubule

Chronic inflammatory cells

Colloid cast

Atrophic tubule

MEDICINETOWN ATLAS OF PATHOLOGY

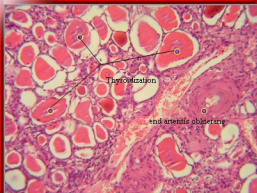
Slide No : 053

System : Urinary

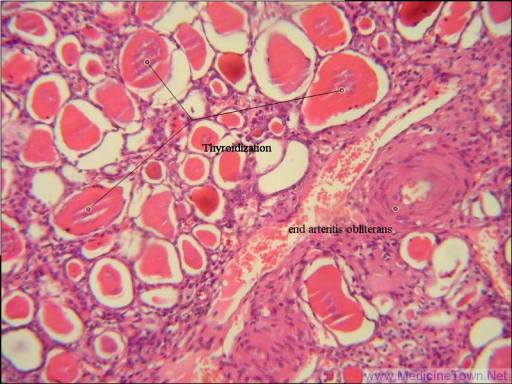
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Thyroidization

end arteritis obliterans

MEDICINETOWN ATLAS OF PATHOLOGY

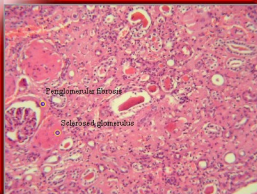
Slide No : 053

System : Urinary

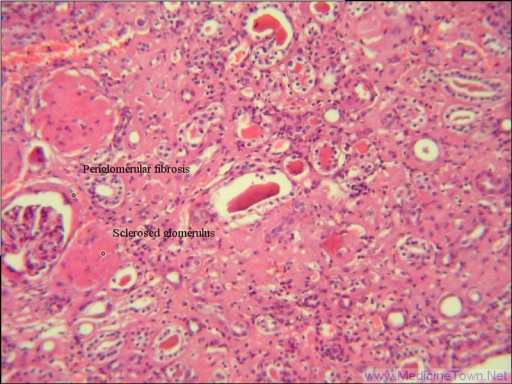
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Periglomerular fibrosis

Sclerosed glomerulus

MEDICINETOWN ATLAS OF PATHOLOGY

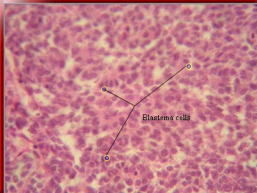
Slide No : 054

System : Urinary

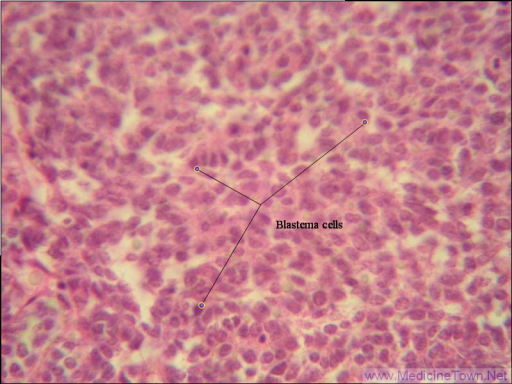
Wilm's tumour

Section of the kidney shows a highly malignant embryonal tumor formed of:

- *A sarcomatous background: shows malignant embryonal (blastema) cells; spindle, oval or rounded with dark nuclei.
- *Abortive glomeruli & tubules: lined by cubical cells with no definite basement membrane.
- *Mixed stromal element: fibrous tissue, muscle, bone & cartilage.



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Blastema cells

MEDICINETOWN ATLAS OF PATHOLOGY

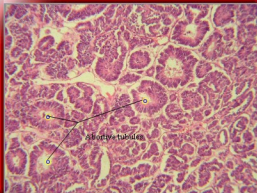
Slide No : 054

System : Urinary

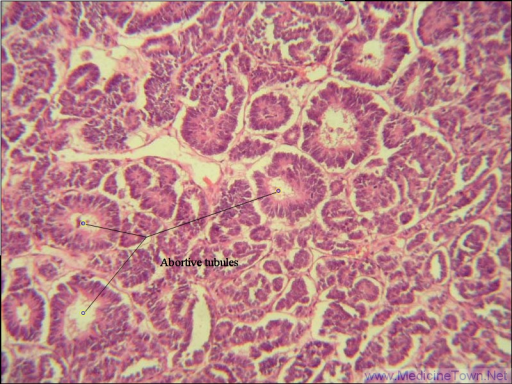
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Abortive tubules

MEDICINETOWN ATLAS OF PATHOLOGY

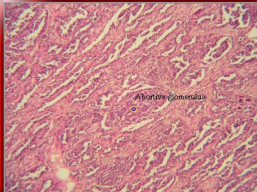
Slide No : 054

System : Urinary

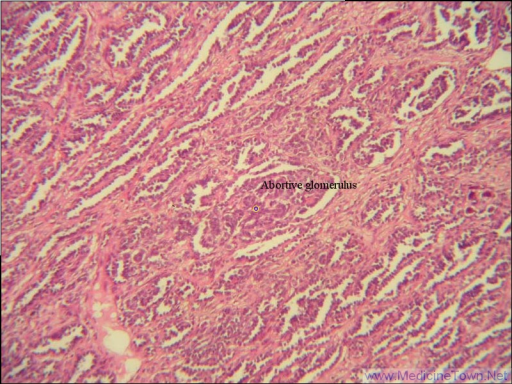
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Abortive glomerulus



MEDICINETOWN ATLAS OF PATHOLOGY

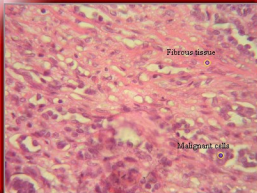
Slide No : 054

System : Urinary

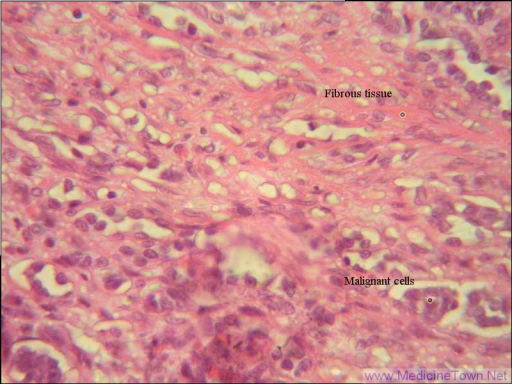
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Fibrous tissue

Malignant cells

MEDICINETOWN ATLAS OF PATHOLOGY

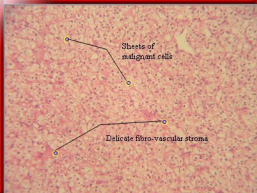
Slide No : 055

System : Urinary

Renal cell carcinoma (Hypernephroma)

Section in the kidney shows a malignant tumor formed of:

- Sheets, groups & cords of malignant cells separated by delicate fibro-vascular stroma.
- The cells are large polyhedral with clear or granular cytoplasm due to high content of lipids & glycogen. The nuclei are small dark & hyperchromatic.
- Areas of haemorrhage and necrosis.



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Sheets of malignant cells

Delicate fibro-vascular stroma

MEDICINETOWN ATLAS OF PATHOLOGY

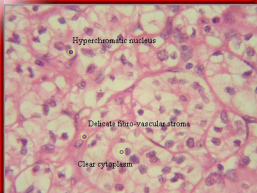
Slide No : 055

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Hyperchromatic nucleus

Delicate fibro-vascular stroma

Clear cytoplasm

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 056

System : Female Reproductive

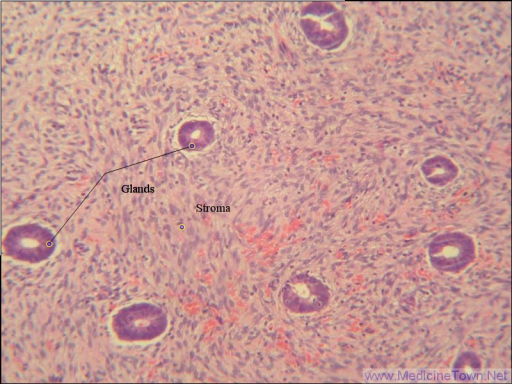
Proliferative endometrium

Section in the endometrium shows:

- The glands are uniform in size & distribution, tubular or rounded in shape & lined by columnar epithelium.
- The stromal cells are spindle-shaped with deeply stained nuclei.



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Glands

Stroma

MEDICINETOWN ATLAS OF PATHOLOGY

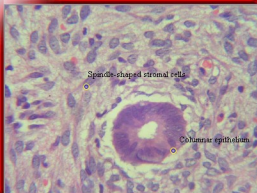
Slide No : 056

System : Female Reproductive

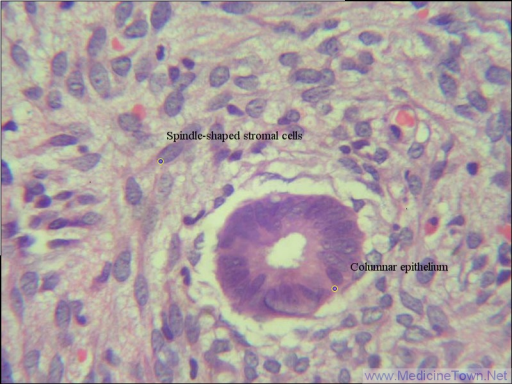
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Spindle-shaped stromal cells

Columnar epithelium

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 057

System : Female Reproductive

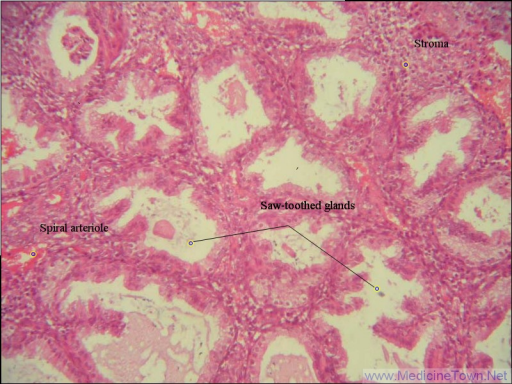
Secretory endometrium

Section of the endometrium shows:

- The glands: are uniform in size & distribution, tortuous with saw-toothed appearance & lined by cubical epithelium.
- The stromal cells rounded with abundant cytoplasm. The stroma is congested, oedematous with spiral arterioles & stromal granulocytes.



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Stroma

Saw-toothed glands

Spiral arteriole

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 057

System : Female Reproductive

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Spiral arteriole

Rounded stromal cells

Gland

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 058

System : Female Reproductive

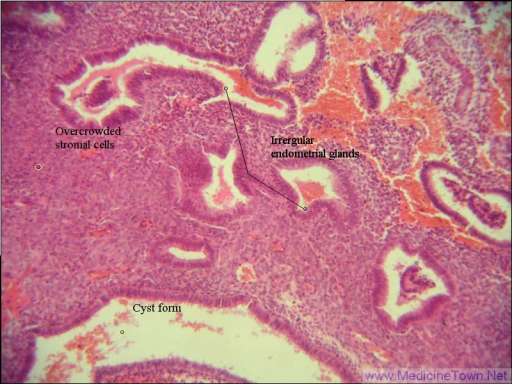
Cystic endometrial hyperplasia

Section in the endometrium shows:

- The glands are increased in number, variable in size with cystically dilated forms. They are lined by hyperplastic tall columnar epithelium that may form papillae.
- The stromal cells are over crowded spindle with scanty cytoplasm & the stroma is congested, oedematous with necrosis.



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Overcrowded
stromal cells

Irregular
endometrial glands

Cyst form

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 058

System : Female Reproductive

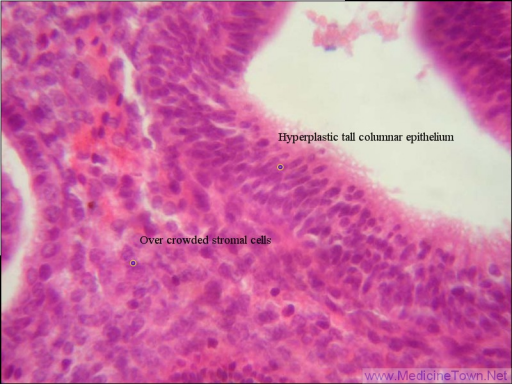
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A histological micrograph showing a section of tissue stained with hematoxylin and eosin (H&E). The image displays a thick layer of hyperplastic tall columnar epithelium, characterized by multiple layers of cells with elongated, columnar nuclei. The underlying stroma is densely packed with over crowded stromal cells, indicating a high cellular density. The overall appearance is consistent with a hyperplastic or neoplastic process.

Hyperplastic tall columnar epithelium

Over crowded stromal cells

MEDICINETOWN ATLAS OF PATHOLOGY

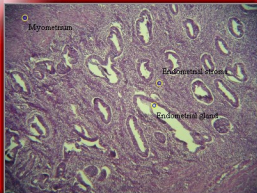
Slide No : 059

System : Female Reproductive

Ademoyosis (Endometriosis interna)

Section in the thickened myometrium shows :

foci of endometrium formed of endometrial glands lined by single layer of columnar epithelium & spindle-shaped stroma with foci of haemorrhage. Round cell infiltrate around such endometrium is also seen.



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A histological micrograph of the endometrium stained with hematoxylin and eosin (H&E). The image displays numerous endometrial glands of varying sizes and shapes, some appearing as simple tubular structures and others as more complex, branched or coiled forms. The glands are lined by a simple columnar epithelium. The surrounding endometrial stroma is composed of a dense population of spindle-shaped cells, likely fibroblasts, with a pinkish-purple hue. The overall architecture is typical of the proliferative phase of the menstrual cycle.

Myometrium

Endometrial stroma

Endometrial gland

MEDICINETOWN ATLAS OF PATHOLOGY

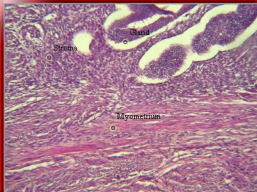
Slide No : 059

System : Female Reproductive

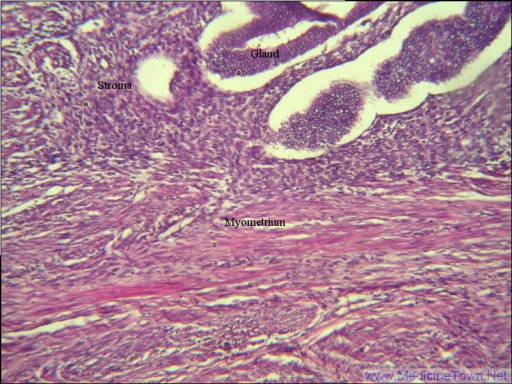
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Stroma

Gland

Myometrium

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 060

System : Female Reproductive

Teratoma (benign cystic)

Section of composite tumor shows :

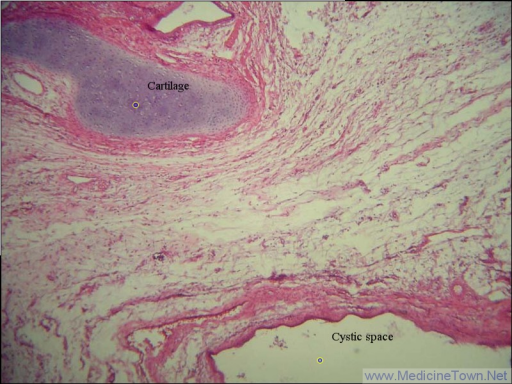
mixture of structures derived from the three germ cell layers (endoderm, ectoderm & mesoderm).

-The Tumor shows multi-cystic structures lined by squamous, respiratory & intestinal epithelium.

-The septa between the cysts show many different structures derived from the three germ cell layers as (brain tissue, retina, cartilage, bone & muscle).



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Cartilage

Cystic space

MEDICINETOWN ATLAS OF PATHOLOGY

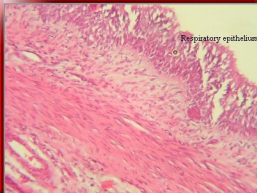
Slide No : 060

System : Female Reproductive

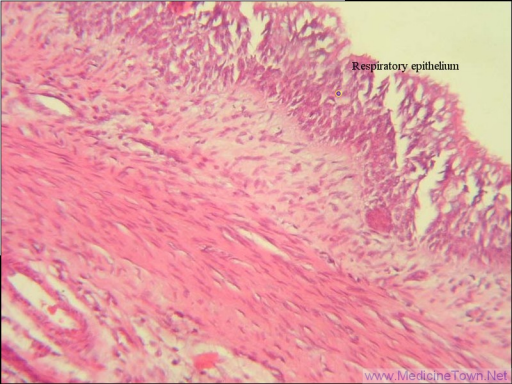
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Respiratory epithelium

This histological image shows a cross-section of the respiratory tract. The upper right portion of the image displays the respiratory epithelium, which is a layer of specialized cells. Below this epithelium is a thick layer of connective tissue, likely the lamina propria, which contains various cells and fibers. The overall structure is stained with hematoxylin and eosin (H&E), giving it a pink and purple appearance.

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 060

System : Female Reproductive

Teratoma (benign cystic)

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Cartilage

Mucous gland

Respiratory epithelium

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 060

System : Female Reproductive

Teratoma (benign cystic)

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Brain tissue



MEDICINETOWN ATLAS OF PATHOLOGY

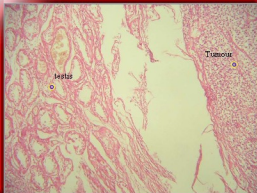
Slide No : 061

System : Male Reproductive

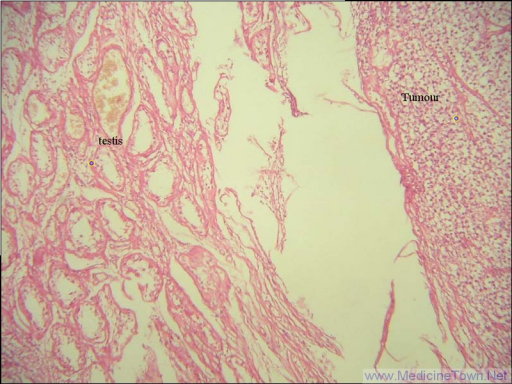
Seminoma

Section shows a malignant non-capsulated tumor formed of:

- Sheets of malignant cells: large polyhedral with abundant pale cytoplasm, large vesicular nuclei & prominent nucleoli.
- Stroma: Delicate reticular stroma with lymphocytic infiltrate.
- Areas of haemorrhage & necrosis.



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testis

Tumour

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 061

System : Male Reproductive

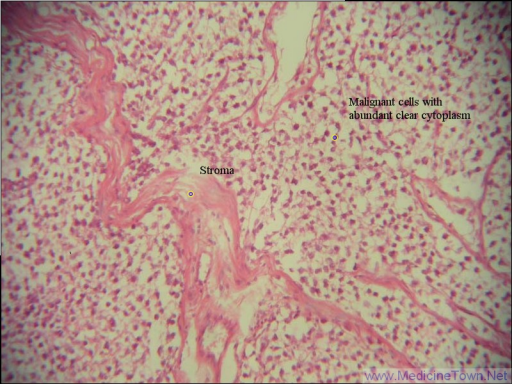
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- Areas of haemorrhage & necrosis.



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Malignant cells with abundant clear cytoplasm

Stroma

MEDICINETOWN ATLAS OF PATHOLOGY

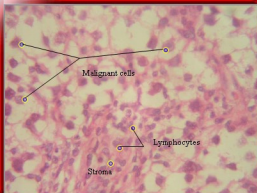
Slide No : 061

System : Male Reproductive

Seminoma

Section shows a malignant non-capsulated tumor formed of:

- Sheets of malignant cells: large polyhedral with abundant pale cytoplasm, large vesicular nuclei & prominent nucleoli.
- Stroma: Delicate reticular stroma with lymphocytic infiltrate.
- Areas of haemorrhage & necrosis.



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Malignant cells

Lymphocytes

Stroma

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 062

System : Female Reproductive

Vesicular mole

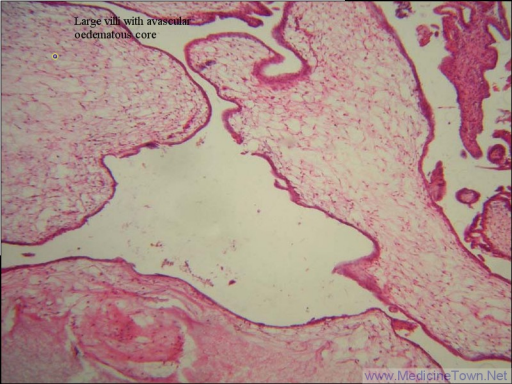
Section shows a benign placental tumor formed of large chorionic villi composed of:

- Core: is formed of avascular oedematous connective tissue.
- Covering: proliferating cyto- & syncytiotrophoblast with polarization.
- May contain foetal membrane, decidua & haemorrhage.



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Large villi with avascular
oedematous core



MEDICINETOWN ATLAS OF PATHOLOGY

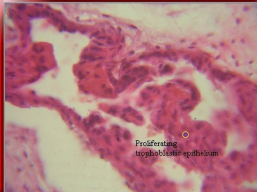
Slide No : 062

System : Female Reproductive

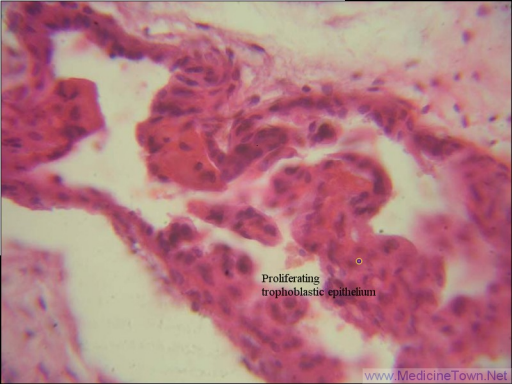
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Proliferating
trophoblastic epithelium

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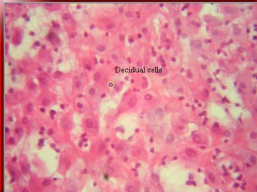
Slide No : 062

System : Female Reproductive

Vesicular mole

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- Core: is formed of avascular oedematous connective tissue.
- Covering: proliferating cyto- & syncytiotrophoblast with polarization.
- May contain foetal membrane, decidua & haemorrhage.



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A high-magnification photomicrograph of a histological section of the decidua. The image shows a dense population of decidual cells, which are large, polygonal in shape, and have a pinkish-red cytoplasm. Their nuclei are large, round, and stained a deep purple. The cells are arranged in a somewhat disorganized pattern, typical of the decidua. The overall background color is a light pinkish-red.

Decidual cells

MEDICINETOWN ATLAS OF PATHOLOGY

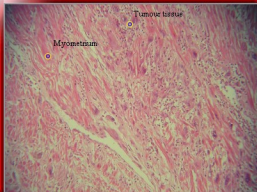
Slide No : 063

System : Female Reproductive

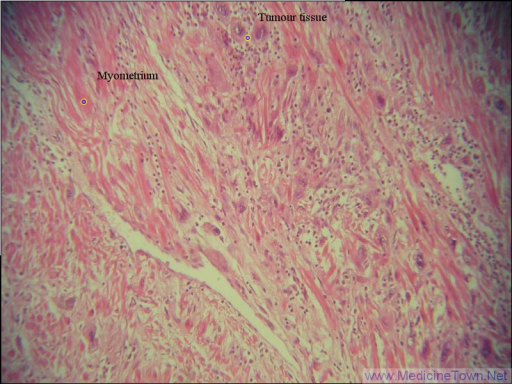
Choriocarcinoma

A highly malignant tumor of the trophoblast shows that:

- The myometrium is infiltrated by sheets of malignant cytotrophoblast (polygonal cells vary in size with dark nuclei) & malignant syncytiotrophoblast (sheets of cytoplasm with no cell borders & large dark nuclei).
- Extensive haemorrhage & necrosis.



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Tumour tissue

Myometrium

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 063

System : Female Reproductive

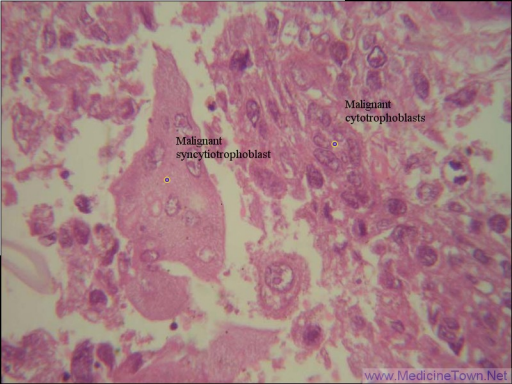
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Malignant
syncytiotrophoblast

Malignant
cytotrophoblasts

MEDICINETOWN ATLAS OF PATHOLOGY

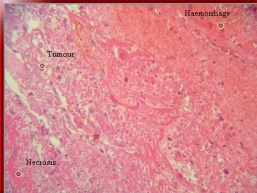
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System : Female Reproductive

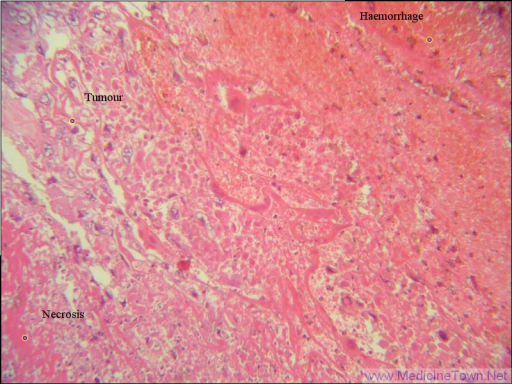
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Haemorrhage

Tumour

Necrosis

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 064

System : Female Reproductive

Fibrocystic disease of the breast

Section in the breast shows:

- The breast ducts show:
 - * Adenosis (increased number of ducts).
 - * Epitheliosis (increased lining cells of the ducts).
 - * Papillomatosis may be seen as small papillae with no connective tissue core.
 - * Cyst formation: macro- or micro-cysts lined by flat cells or apocrine cells.
 - * Apocrine metaplasia: cells with eosinophilic granular cytoplasm and small central nuclei.
- The stroma: show lymphocytic infiltration & fibrosis.



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Fibrosis

Adenosis
(increased number of ducts)

MEDICINETOWN ATLAS OF PATHOLOGY

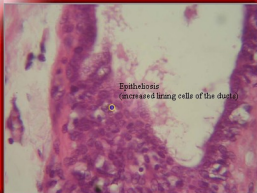
Slide No : 064

System : Female Reproductive

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Epitheliosis
(increased lining cells of the ducts)

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A histological micrograph showing a cross-section of a duct. The duct is lined by a thick, multi-layered epithelium, which is characteristic of epitheliosis. The cells are densely packed and show some degree of pleomorphism. The lumen of the duct is relatively clear. The surrounding stroma is stained pink, and there are some scattered inflammatory cells.

Epitheliosis
(increased lining cells of the ducts)

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 064

System : Female Reproductive

Fibrocystic disease of the breast

Section in the breast shows:

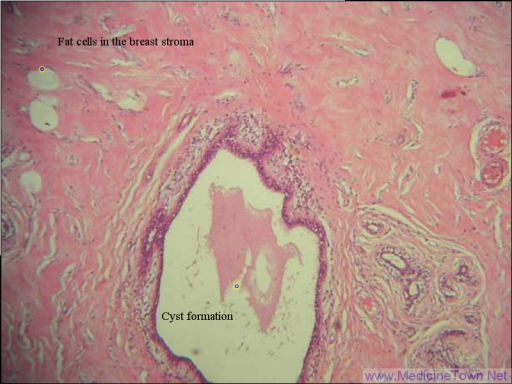
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Fat cells in the breast stroma

Cyst formation



MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 064

System : Female Reproductive

Fibrocystic disease of the breast

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- The stroma: show lymphocytic infiltration & fibrosis.



Apocrine metaplasia

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Apocrine metaplasia

MEDICINETOWN ATLAS OF PATHOLOGY

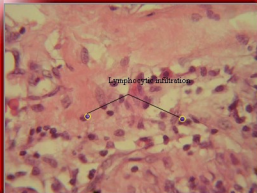
Slide No : 064

System : Female Reproductive


Fibrocystic disease of the breast

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- The stroma: show lymphocytic infiltration & fibrosis.



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A histological micrograph showing a dense population of small, dark-staining lymphocytes infiltrating the tissue. The cells are scattered throughout the field, with some clusters. The background tissue has a pinkish, fibrous appearance. A black line with two endpoints points from the text label to two individual lymphocytes.

Lymphocytic infiltration

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 065

System : Female Reproductive

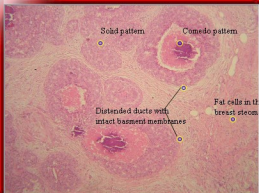
Intra-duct carcinoma

Section in the breast shows :

that the breast ducts are dilated & distended with malignant duct epithelium (pleomorphic cells with dark hyperchromatic nuclei & prominent nucleoli).

- The ducts show different patterns:

- Solid: ducts are completely occluded by the malignant cells.
 - Papillary: dilated ducts with papillary projections.
 - Comedo: necrosis of the central cells that appear granular and red.
- No invasion of the basement membrane.
-Intact fibro-fatty stroma.



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Solid pattern

Comedo pattern

Distended ducts with intact basement membranes

Fat cells in the breast stroma

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 065

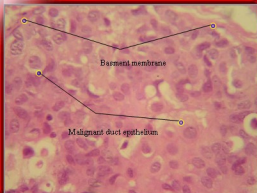
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Basment membrane

Malignant duct epithelium

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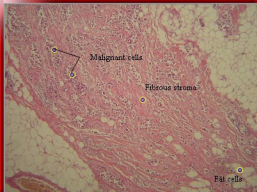
Slide No : 066

System : Female Reproductive

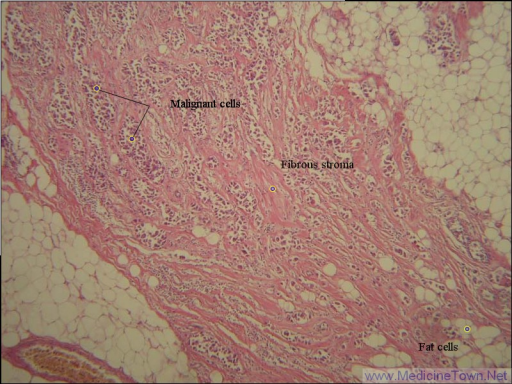
Infiltrating duct carcinoma

Section shows a malignant tumor composed of:

- Sheets & groups of rounded to polygonal malignant epithelial cells.
- The malignant cells are pleomorphic with dark hyperchromatic nuclei & prominent nucleoli.
- The malignant cells are separated by fibrous stroma.



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Malignant cells

Fibrous stroma

Fat cells

MEDICINETOWN ATLAS OF PATHOLOGY

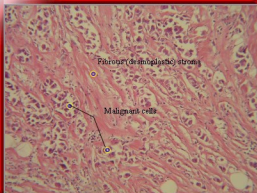
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System : Female Reproductive

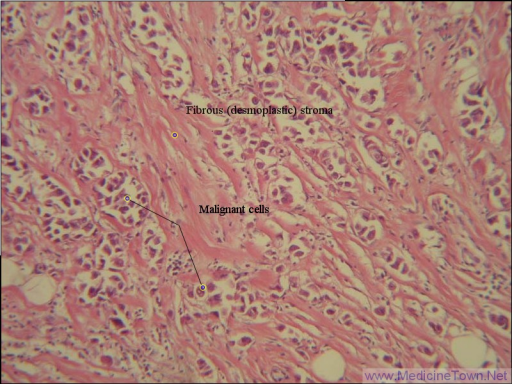
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- Sheets & groups of rounded to polygonal malignant epithelial cells.
- The malignant cells are pleomorphic with dark hyperchromatic nuclei & prominent nucleoli.
- The malignant cells are separated by fibrous stroma.



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Fibrous (desmoplastic) stroma

This histological micrograph shows a dense population of malignant cells with pleomorphic nuclei and prominent nucleoli, arranged in irregular nests and cords. The tumor is embedded within a thick, pink-staining fibrous stroma, characteristic of desmoplasia. The overall architecture is highly cellular and disorganized.

Malignant cells

MEDICINETOWN ATLAS OF PATHOLOGY

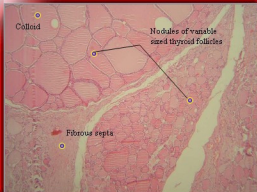
Slide No : 067

System : Endocrine

Simple nodular goiter

Section of the thyroid gland shows:

- The gland is divided by fibrous septa into variable sized nodules.
- Each nodule shows thyroid follicles; small, large or cystically dilated & contain excess homogenous pink colloid & lined by flat to cubical epithelium.



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Colloid

Nodules of variable sized thyroid follicles

Fibrous septa

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 067

System : Endocrine

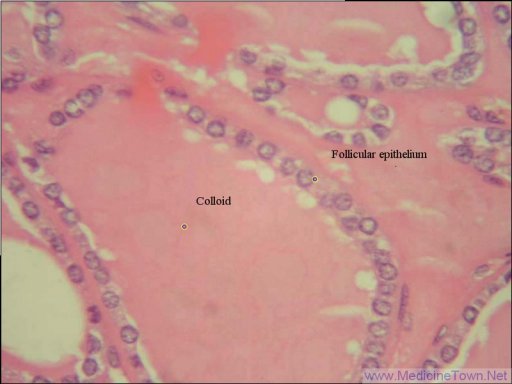
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Follicular epithelium

Colloid

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 068

System : Lymphatic

Hodgkin's lymphoma

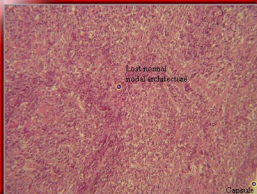
Section in the lymph node shows:

- Loss of normal nodal architecture with infiltration by:

* Neoplastic cells (Typical Reed-Stenberg cells): large giant cells with abundant amphophilic cytoplasm & two mirror image kidney-shaped vesicular nuclei containing prominent eosinophilic nucleoli.
Mononuclear Hodgkin's cells may be present.

*Non-neoplastic (reactive) cells: mixture of mature lymphocytes, plasma cells, eosinophils, histiocytes & neutrophils.

- Areas of fibrosis, haemorrhage &



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Lost normal
nodal architecture

This histological slide shows a dense, diffuse infiltrate of cells, characteristic of a lymphoproliferative disorder. The normal architecture of a lymph node, including distinct lymphoid follicles and a clear cortex, is completely obscured by the infiltrating cells. The cells are small to medium-sized with hyperchromatic nuclei and scant cytoplasm, typical of a high-grade lymphoma. A blue circle highlights a specific area of the infiltrate.

Capstle

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 068

System : Lymphatic

Hodgkin's lymphoma

Section in the lymph node shows:

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*Non-neoplastic (reactive) cells: mixture of mature lymphocytes, plasma cells, eosinophils, histiocytes & neutrophils.

- Areas of fibrosis, haemorrhage &



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Lymphocytes

Eosinophil

Typical Reed-Sternberg cell

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 068

System : Skeletal

Hodgkin's lymphoma

Section in the lymph node shows:

- Loss of normal nodal architecture with infiltration by:

* Neoplastic cells (Typical Reed-Stenberg cells): large giant cells with abundant amphophilic cytoplasm & two mirror image kidney-shaped vesicular nuclei containing prominent eosinophilic nucleoli.

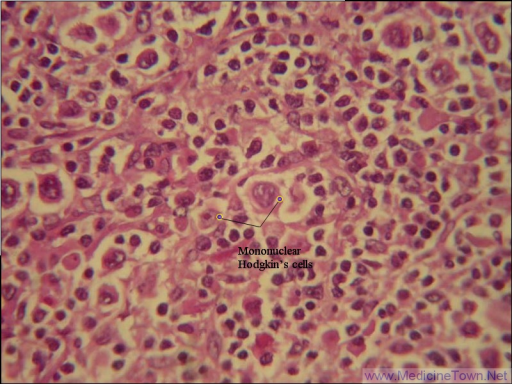
Mononuclear Hodgkin's cells may be present.

*Non-neoplastic (reactive) cells: mixture of mature lymphocytes, plasma cells, eosinophils, histiocytes & neutrophils.

- Areas of fibrosis, haemorrhage &



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Mononuclear
Hodgkin's cells

MEDICINETOWN ATLAS OF PATHOLOGY

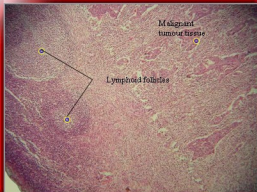
Slide No : 069

System : Lymphatic

Metastatic carcinoma (lymph node)

Section in the lymph node shows:

- Partial replacement of the lymphoid tissue by malignant tissue (metastatic carcinoma).
- The tumor is arranged in solid sheets or acini. The cells show the malignant characters (loss of polarity, cellular pleomorphism with pleomorphic dark hyperchromatic nuclei & prominent nucleoli).
- Areas of haemorrhage, necrosis & lymphatic tumor emboli are also seen.



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Malignant
tumour tissue

This histological slide shows a cross-section of tissue with two distinct regions. The upper right portion is characterized by dense, irregular clusters of cells with hyperchromatic nuclei and scant cytoplasm, typical of malignant tumor tissue. The lower left and central portions consist of more organized, rounded structures with a clear outer capsule and a dense population of small, dark-staining lymphocytes, representing lymphoid follicles. A black line with two endpoints points from the 'Lymphoid follicles' label to these two structures. A small blue circle is also present in the malignant tissue area.

Lymphoid follicles

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 069

System : Lymphatic

Metastatic carcinoma (lymph node)

Section in the lymph node shows:

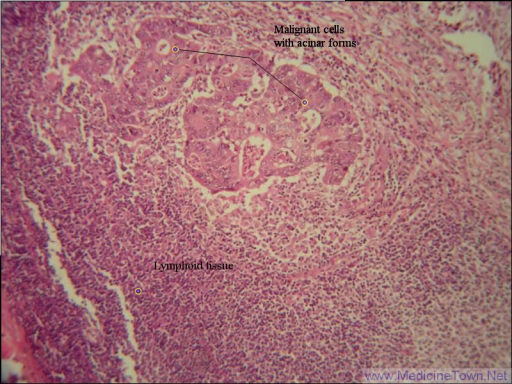
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- The tumor is arranged in solid sheets or acini. The cells show the malignant characters (loss of polarity, cellular pleomorphism with pleomorphic dark hyperchromatic nuclei & prominent nucleoli).
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Malignant cells
with acinar forms

Lymphoid tissue



MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 070

System : Digestive

Section in the small intestine shows:

- Diffuse infiltration of all layer of the intestine by large transformed (malignant) lymphocytes uniform in size & shape with coarse chromatin granules & irregular nuclear membrane with prominent nucleoli & scanty cytoplasm.
- Areas of haemorrhage & necrosis are seen.

Intestinal lymphoma

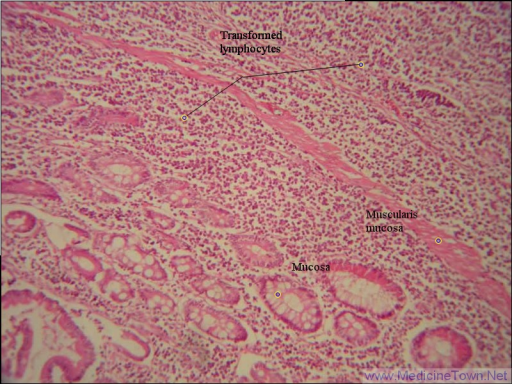


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Transformed lymphocytes

Muscularis mucosa

Mucosa



MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 070

System : Digestive

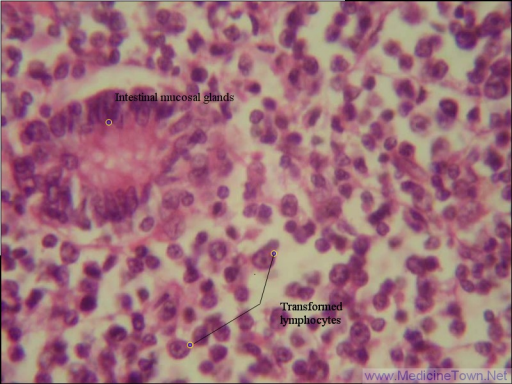
Intestinal lymphoma

Section in the small intestine shows:

- Diffuse infiltration of all layer of the intestine by large transformed (malignant) lymphocytes uniform in size & shape with coarse chromatin granules & irregular nuclear membrane with prominent nucleoli & scanty cytoplasm.
- Areas of haemorrhage & necrosis are seen.



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Intestinal mucosal glands

This histological micrograph shows a section of intestinal tissue. On the left side, there is a cluster of intestinal mucosal glands, which are glandular structures with a central lumen. The surrounding tissue is densely populated with cells, many of which are transformed lymphocytes. These cells are characterized by their large, darkly stained nuclei and scant cytoplasm. A line with two arrows points from the label 'Transformed lymphocytes' to two of these cells. The overall appearance is that of a lymphoproliferative disorder involving the intestinal mucosa.

Transformed lymphocytes

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 071

System : Lymphatic

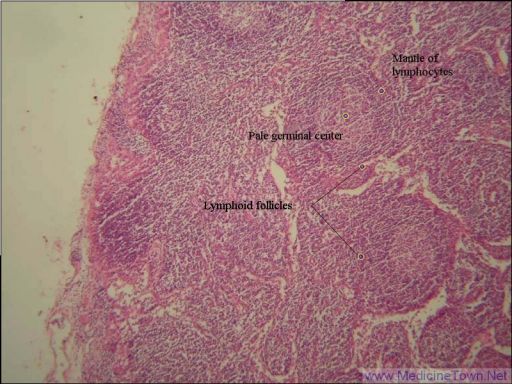
Follicular hyperplasia of the lymph node

Section in the lymph node shows:

- Preserved nodal architecture.
- Many large reactive lymphoid follicles variable in size & shape with prominent pale germinal center & surrounded by dark mantle (zone) of lymphocytes.
- The follicles are scattered in the cortex & medulla.



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Mantle of lymphocytes

Pale germinal center

Lymphoid follicles

MEDICINETOWN ATLAS OF PATHOLOGY

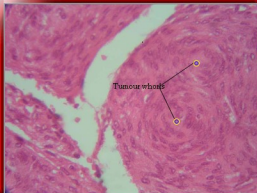
Slide No : 072

System : Nervous

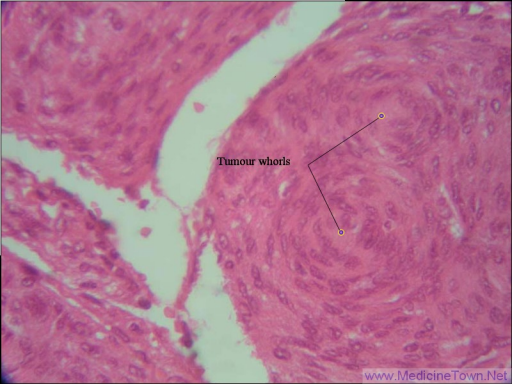
Meningioma

Section of a benign tumor of the meninges shows:

- Whorls of meningiothelial cells (rounded or oval cells with vesicular nuclei & ill-defined cell borders) separated by loose vascular connective tissue.
- Some whorls show hyaline changes in their center forming homogeneous pink eosinophilic bodies that may become blue dark calcified bodies (Psammoma bodies).



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Tumour whorls

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 072

System : Nervous

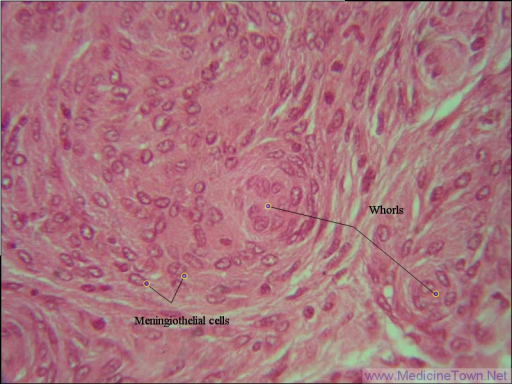
Meningioma

Section of a benign tumor of the meninges shows:

- Whorls of meningothelial cells (rounded or oval cells with vesicular nuclei & ill-defined cell borders) separated by loose vascular connective tissue.
- Some whorls show hyaline changes in their center forming homogeneous pink eosinophilic bodies that may become blue dark calcified bodies (Psammoma bodies).



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Whorls

Meningothelial cells

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 072

System : Nervous

Meningioma

Section of a benign tumor of the meninges shows:

- Whorls of meningiothelial cells (rounded or oval cells with vesicular nuclei & ill-defined cell borders) separated by loose vascular connective tissue.
- Some whorls show hyaline changes in their center forming homogeneous pink eosinophilic bodies that may become blue dark calcified bodies (Psammoma bodies).



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Psammoma body

MEDICINETOWN ATLAS OF PATHOLOGY

Slide No : 073

System : Female Reproductive

Leiomyoma

Section in the uterus shows a benign tumor formed of:

- Interlacing bundles of smooth muscle fibers running in various directions. The fibers are spindled with rounded ends, abundant cytoplasm & rod-shaped nuclei.
- Fibrous stroma mixed with the smooth muscle fibers (fibroblasts) that are spindled with tapering ends & flat nuclei. The fibrous stroma may be abundant (fibromyoma or fibroid).



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Tumour

Myometrium



MEDICINETOWN ATLAS OF PATHOLOGY

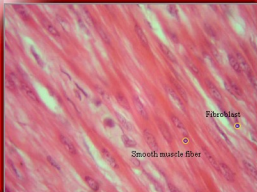
Slide No : 073

System : Female Reproductive

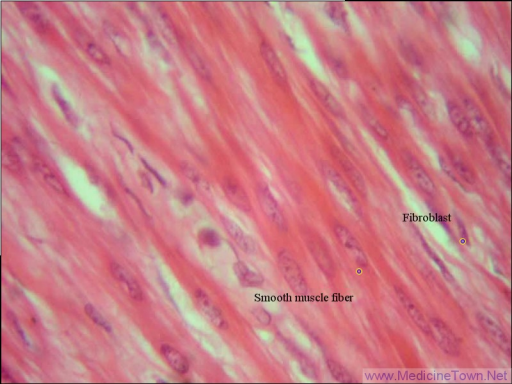
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- Fibrous stroma mixed with the smooth muscle fibers (fibroblasts) that are spindled with tapering ends & flat nuclei. The fibrous stroma may be abundant (fibromyoma or fibroid).



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Fibroblast

Smooth muscle fiber