All lecture of practical OSPE file (MSK block)

Red: questions.

Dark red: very important.

Black: complete answers.

Gray: notes|extra.

Editing file

➢ You should know before the exam:

- The diagrams in these slides are going to be the **same** in the exam however, it may not be coloured.
- You have to **mention the full name** always and **don't use shortcuts** you could lose marks because of that.
- The **Arrows** in the diagrams are **very important .**
- So please study them well.

Hyaline Cartilage

Q1- Identify the structure?

Hyaline Cartilage

Features :

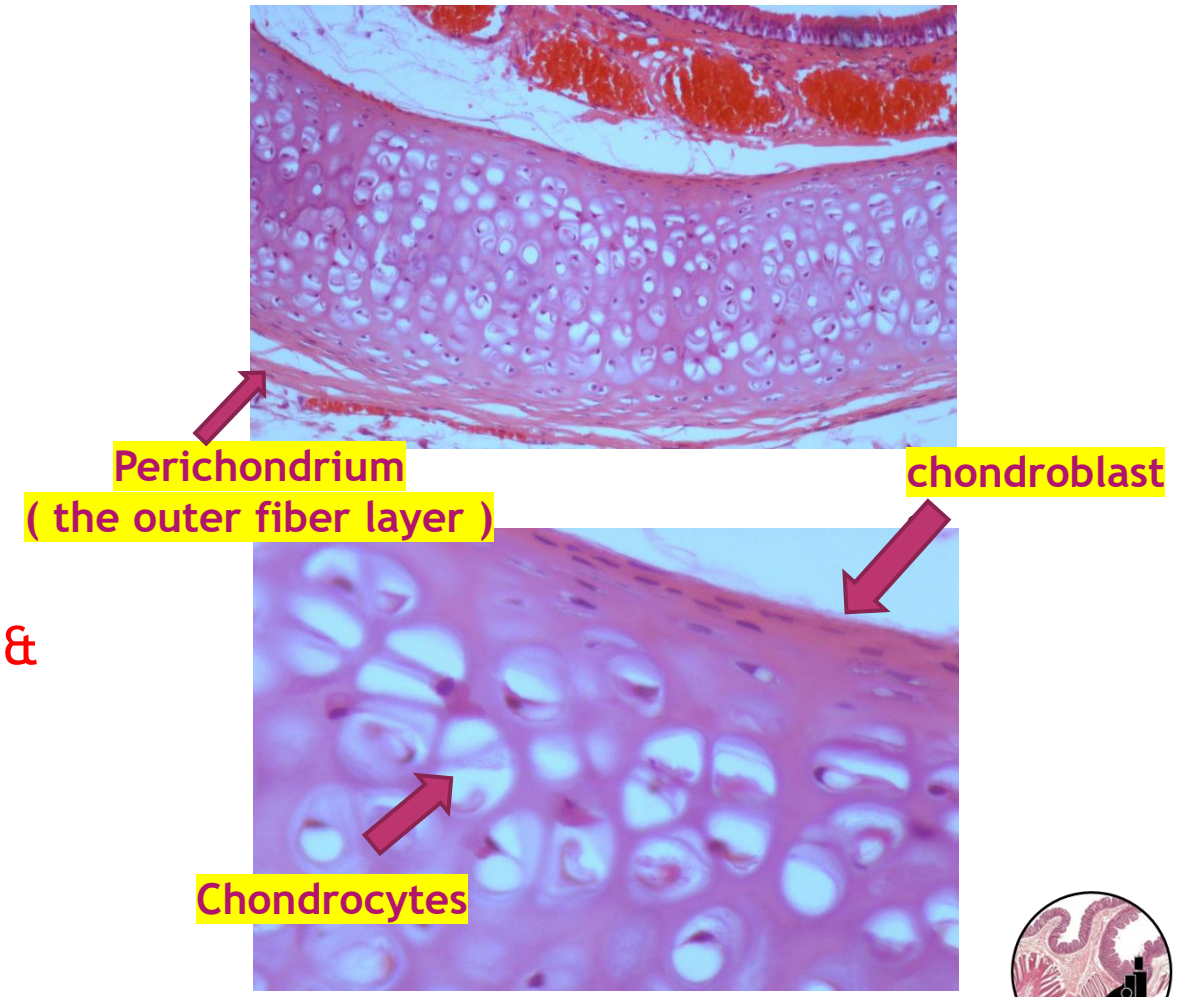
- Perichondrium.
- chondroblasts
- chondrocytes (found in lacunae).

Matrix :

- Homogeneous and Basophilic .
- collagen fibers type II.

Q- mention the organs (distribution, site & example)?

- Articular surfaces of bones.
- Foetal (fetal) skeleton.
- Costal cartilage.
- Nose , Trachea & Bronchi.



HISTOLOGY TEAM 437

Elastic Cartilage

Q1- Identify the structure?

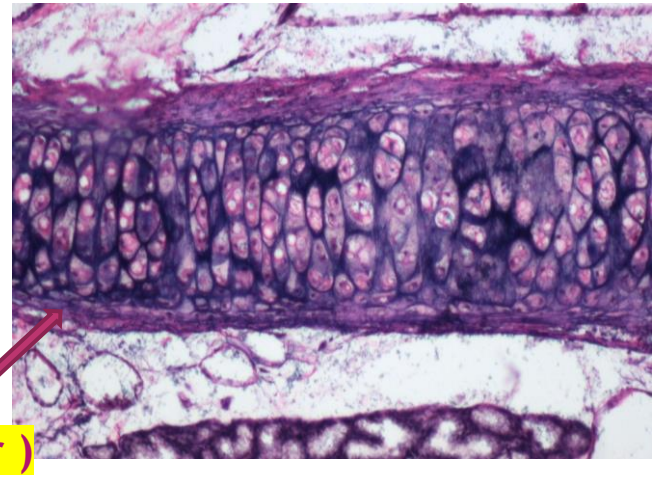
Elastic Cartilage

Features :

- Perichondrium
- Chondrocytes

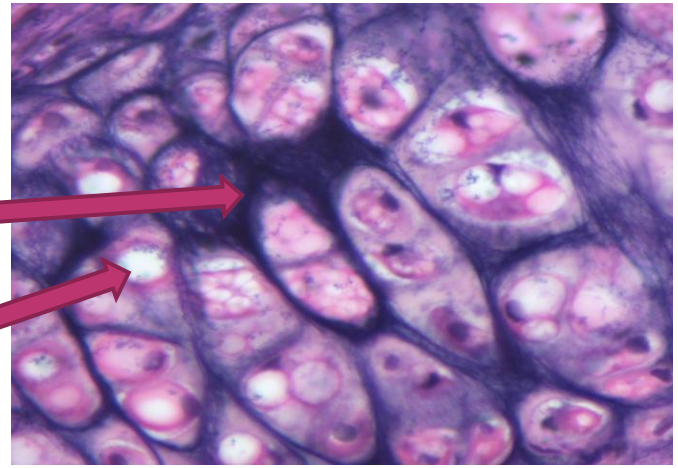
Matrix :

- Contains elastic fibers



Q2- mention the organs (distribution, site & example)?

- External ear
- Epiglottis



HISTOLOGY TEAM 437

Compact bone (cortical)

Q1- Identify the structure?

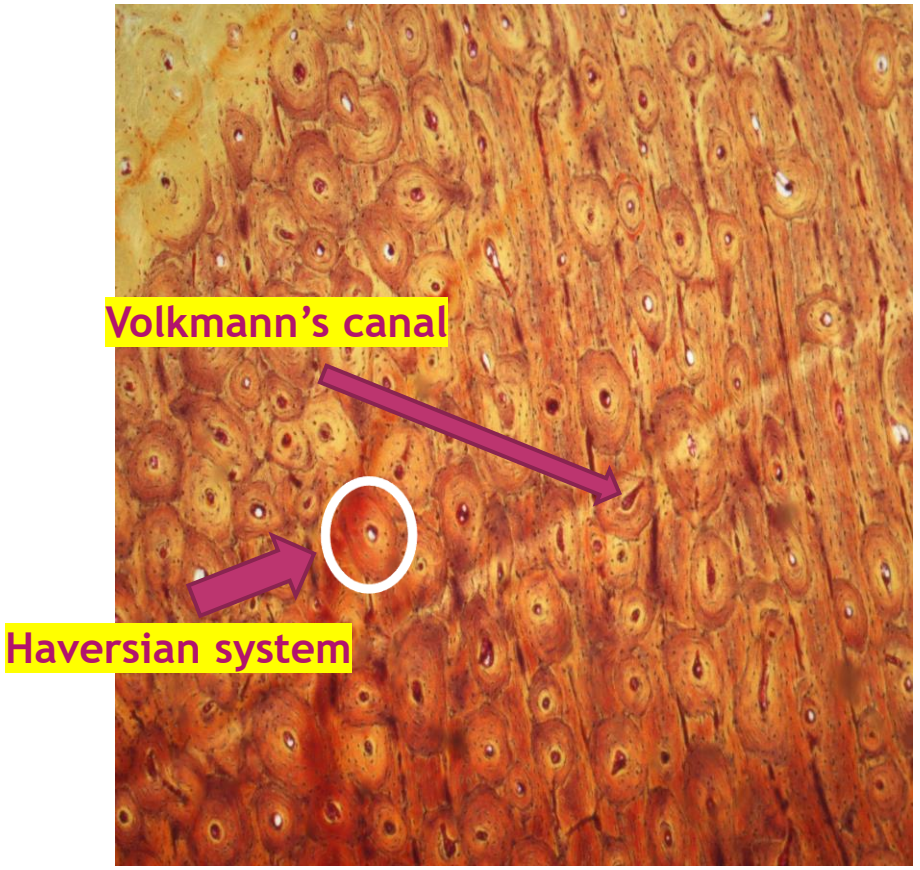
Compact bone (cortical)

Features:

- Bone Lamellae.
- Haversian systems.
- Osteocyte inside lacunae **that have canaliculi**.

Q2- mention the organs (distribution, site & example)?

- Diaphysis of long bones.



HISTOLOGY TEAM 437

Haversian Systems (Osteons)

Q1- Identify the structure?

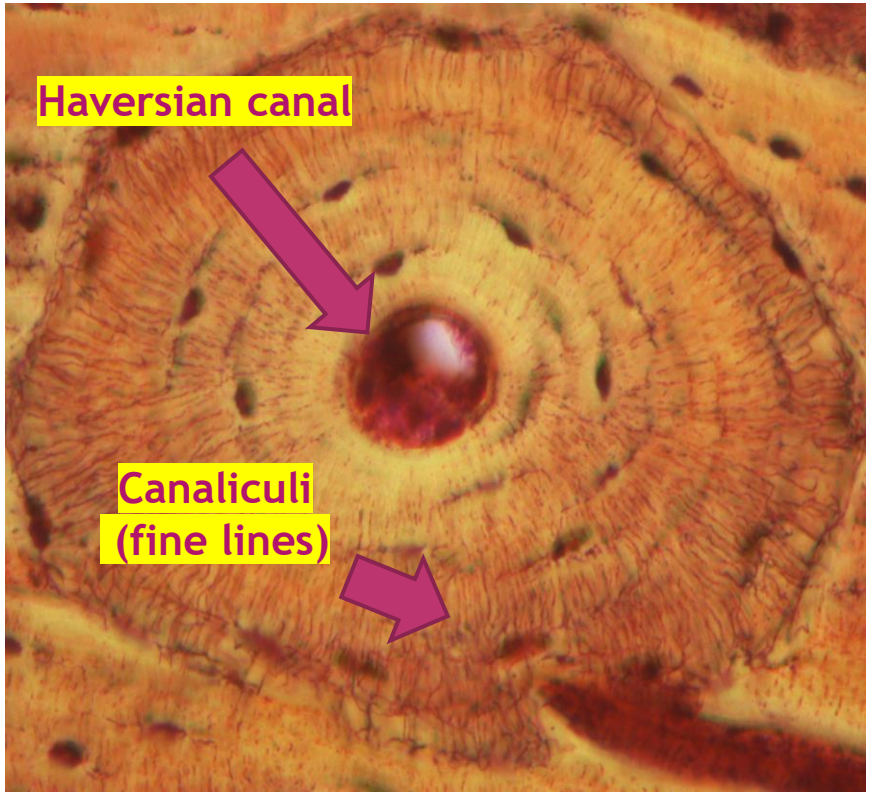
Haversian Systems (Osteons)

Features:

- Concentric bone lamellae.
- Haversian canal.
- Osteocyte inside lacunae.
- Canaliculi (fine lines)

Q2- mention the organs (distribution, site & example)?

- Inside the compact bone in diyaphysis of long bone.



HISTOLOGY TEAM 437

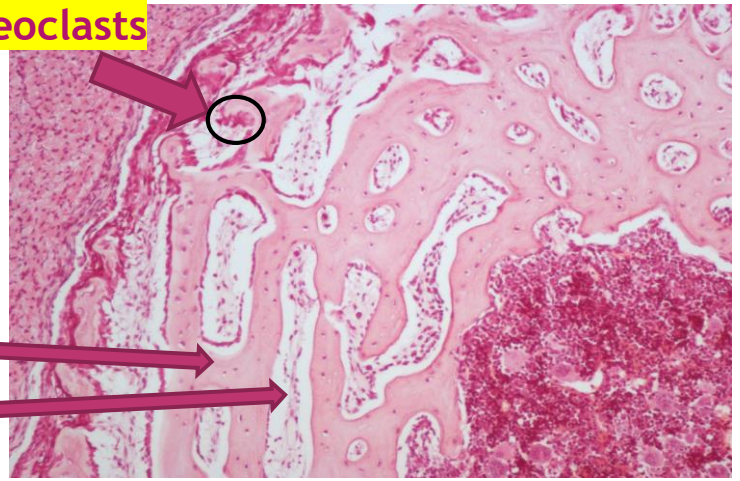
Spongy (Cancellous) Bone

Q1- Identify the structure?

Spongy (Cancellous) Bone

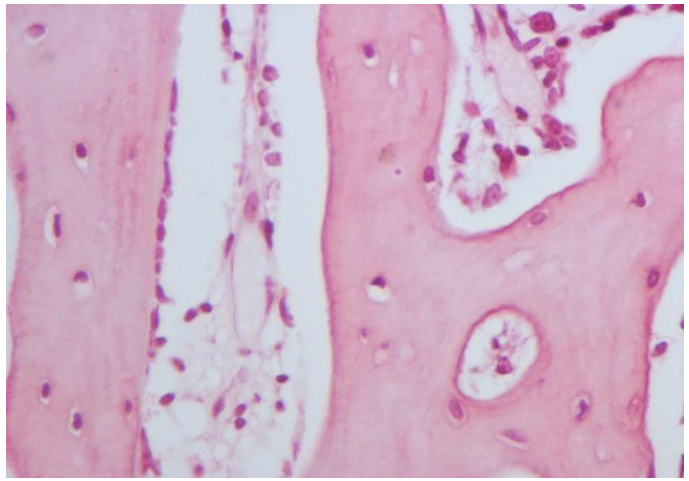
Features :

- Irregular bone trabeculae (matrix).
- Irregular bone marrow spaces contains bone marrow .
- NO Haversian systems .
- Osteoclasts (multinucleated)



Q2- mention the organs (distribution, site & example)?

- Flat bones.
- Epiphysis of long bone.



HISTOLOGY TEAM 437

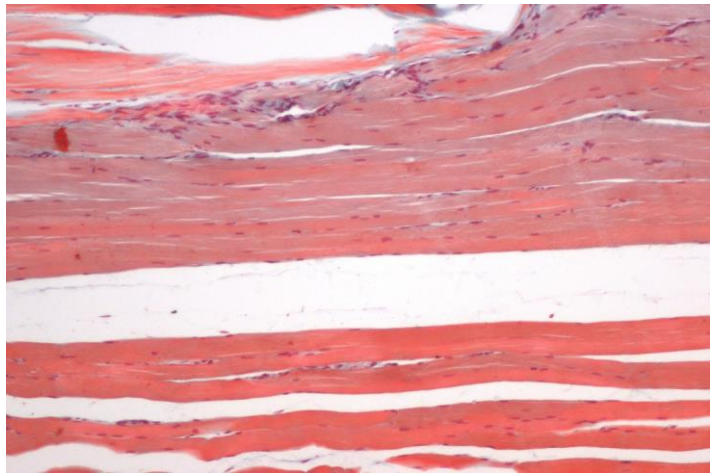
Skeletal muscle (L.S.)

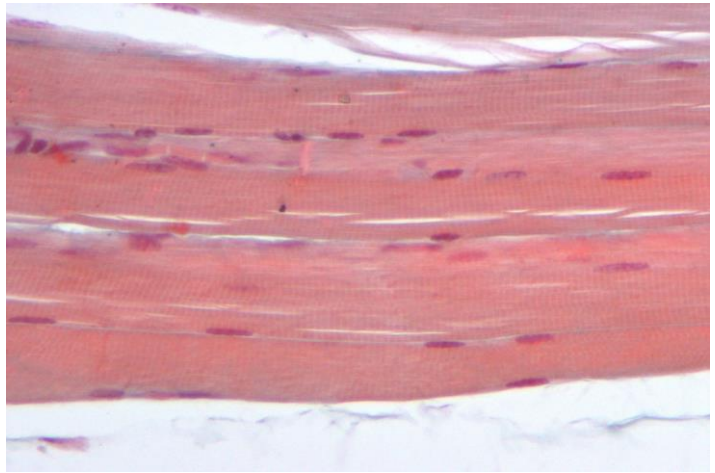
Q1- Identify the structure?

Skeletal muscle (L.S.)

Features :

- Multinucleated, nuclei on periphery.
- Cylindrical in shape.
- Non-branched .
- Cytoplasm **(sarcoplasm)** is acidophilic and shows clear transverse striations.





Q2- mention the organs (distribution, site & example)?

Skeletal system (all voluntary muscles).

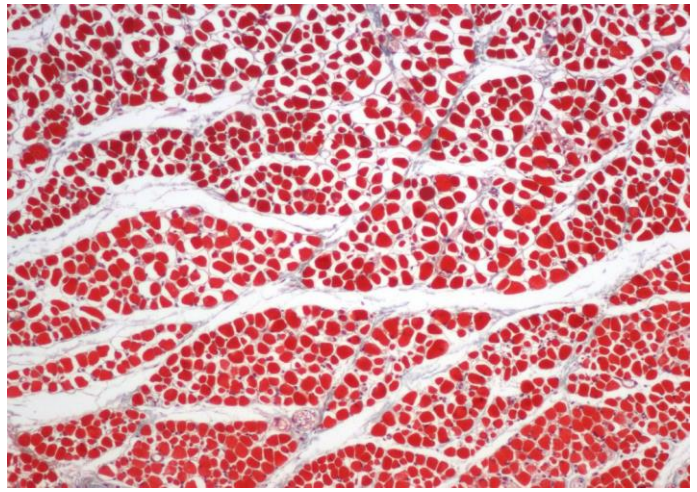
Skeletal muscle (T.S.)

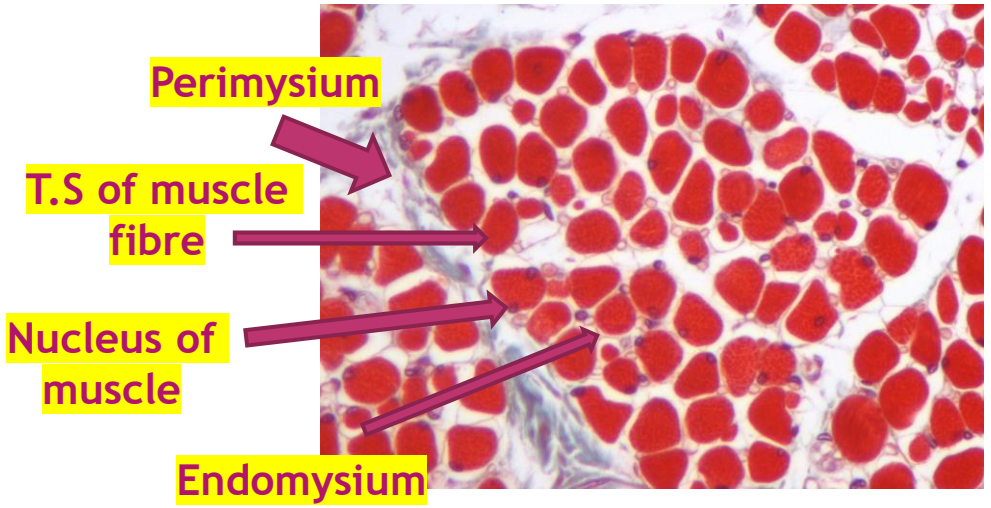
Q1- Identify the structure?

Skeletal muscle (T.S.)

Features:

- Endomysium: Loose C.T. separates the individual fibres.
- Perimysium: Separates the parallel bundles of muscle fibres.
- Epimysium: **Thick** CT covering the whole muscle.



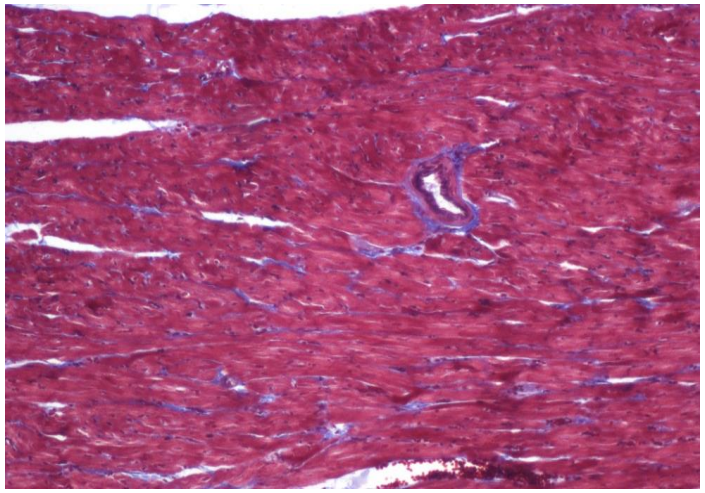


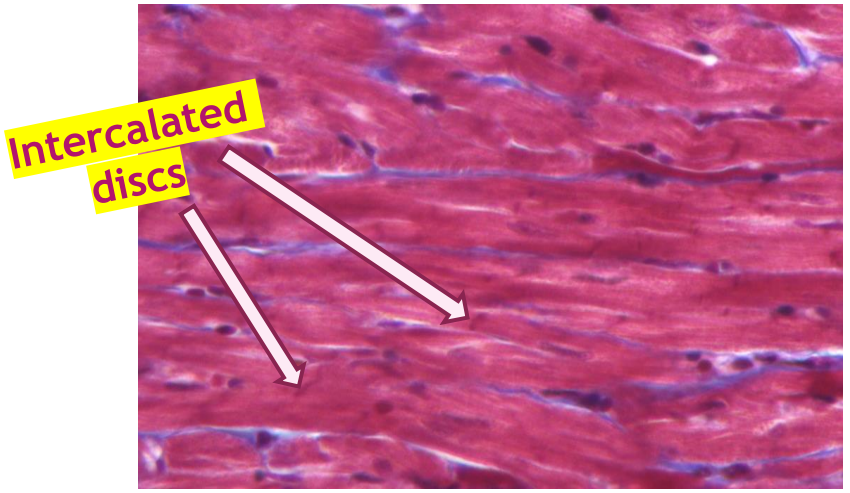
HISTOLOGY TEAM 437

Cardiac muscle

Q1- Identify the structure?
Cardiac muscle

Features:
- Mononucleated.
- Oval and central nuclei.
- Branched and anastomose.
- Striated (not clear)
- Cylindrical in shape.
- Intermediate in diameter (in comparison to other muscles)
- Gap junctions are present .
- Intercalated discs.





Q2- mention the organs (distribution, site & example)?
- Myocardium.

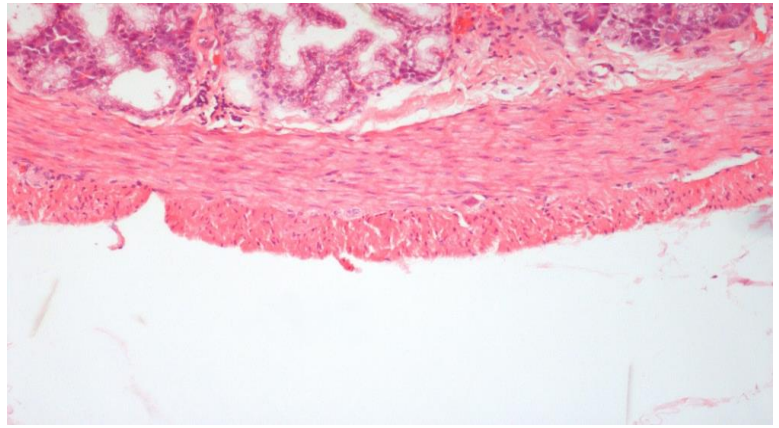
Smooth muscle (T.S & L.S)

Q1- Identify the structure?

Smooth muscle (T.S & L.S)

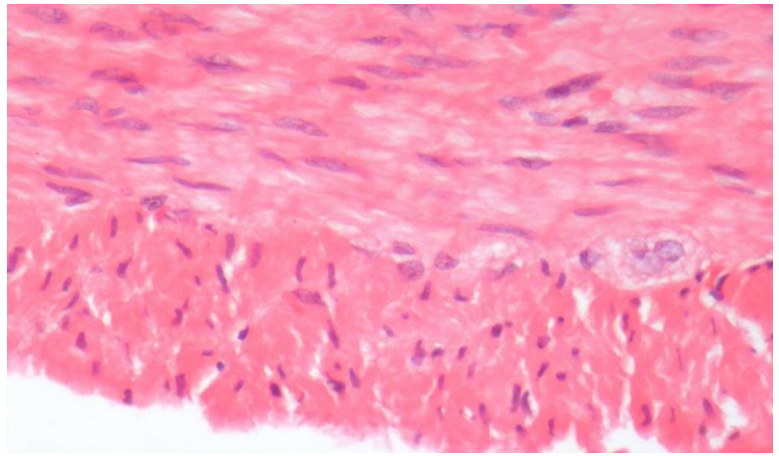
Features:

- Mononucleated; oval and central nuclei.
- Non striated.
- Non branched.
- Fusiform (spindle shaped).
- Small in diameter.
- Gap junctions are present.



Q2- mention the organs (distribution, site & example)?

- Walls of blood vessels.
- Viscera.



" إذا ماطمحت إلى غاية .. ركبت المنى ونسيت الحذر
ومن يتهيب صعود الجبال .. يعش أبداً بين الحفر "

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