

By: Aml



DATA3LOM
2025

Physiology → علم وظائف الأعضاء

Morphology → external
→ internal

Histology

دراسة الخلايا مجهرية

Cytology

دراسة كليات الخلية
داخل الخلية الحية

Anatomy

internal organs
by naked eye.

Histology "علم الخلايا مجهرية"

microscopic study of tissue of

different organs.

الأنسجة

Zygote Division



(Fertilized egg)

group of cell

organ

system.

(one cell)

تissue

full body of organism.

tissue: group of cell

- [1] similar in structure
- [2] perform the same function.
- [3] Packed together by matrix.

type of tissue (4)

function

الأنسجة

[1] epithelium tissue

→ covering-lining + protection

[2] connective tissue

→ connection.

[3] muscular tissue

→ muscles.

[4] Nervous tissue

→ nervous.

① Connective tissue 3 type طبيعية Nature of matrix

① Gelatinous matrix.

Connective tissue Proper

② Solid matrix.

Skeletal connective tissue

Bone

Cartilage غضاريف

③ Fluid matrix.

* Vascular connective

Blood

Lymph

① Connective tissue Proper ⑥ types.

نسيج ضام أصلي التي لا يمكن فصلها عن الخلايا

III Asealar C.T

Leucocyte

fat cell

yellow fiber

Plasma cell.

(Phagocyte) macrophage

white fiber

Fibrocyte

mast cell

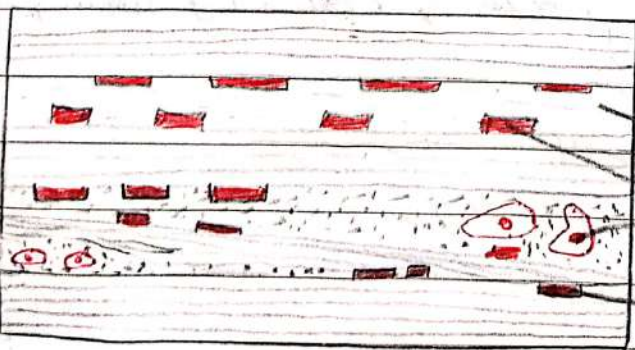
matrix

الخلايا الناعمة

نسيج ضام أصلي

② Fibrous connective tissue

نسيج ضام ليفي

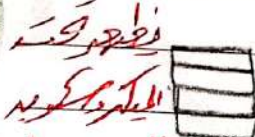


white fibre

yellow fibres.

Fibrocyte

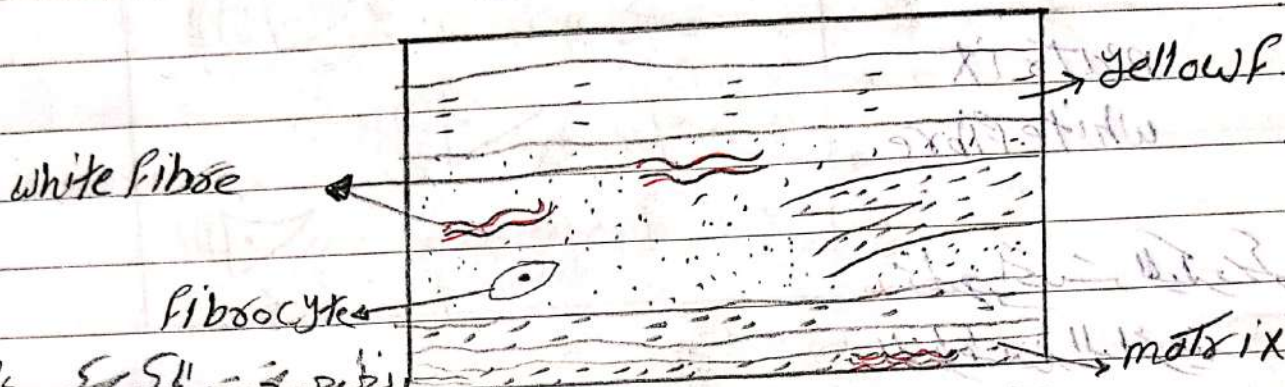
matrix



نسيج ضام أصلي

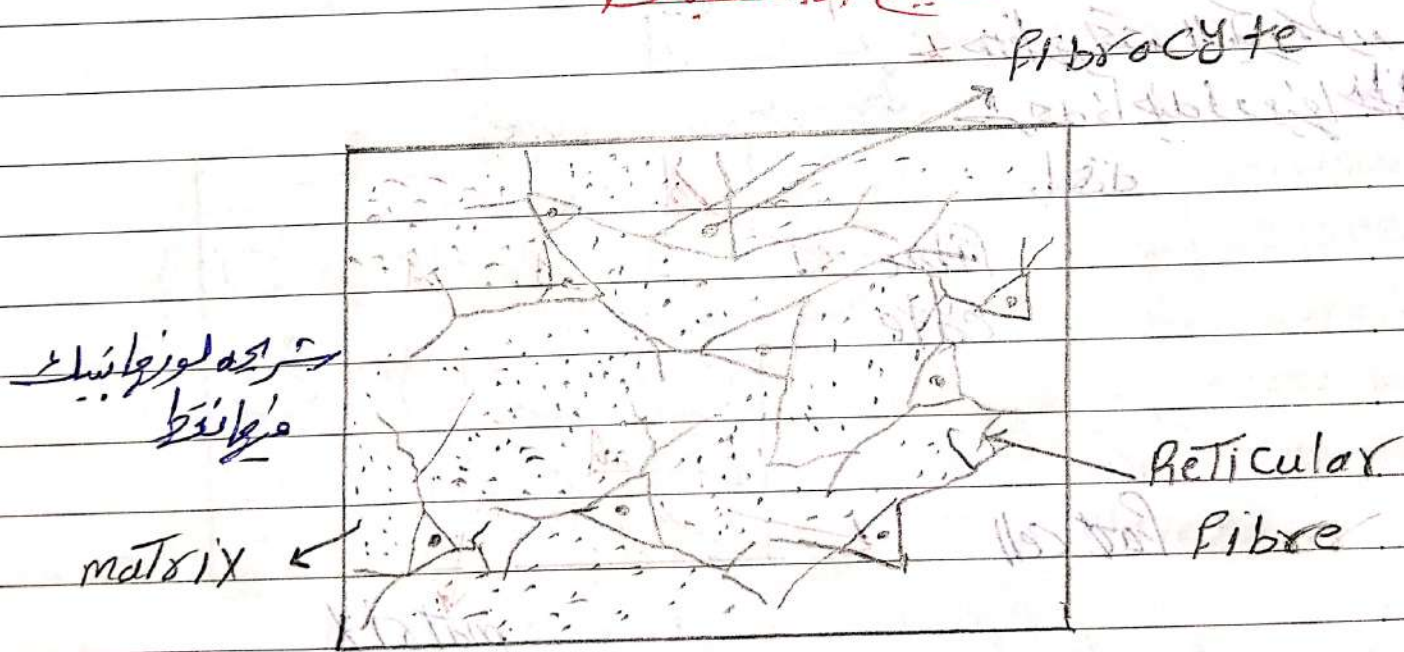
③ elastic connective tissue.

فibre (yellow fibre > white fibre)
نسيج ضام مرنة



④ Reticular connective tissue.

نسيج ضام شبكي

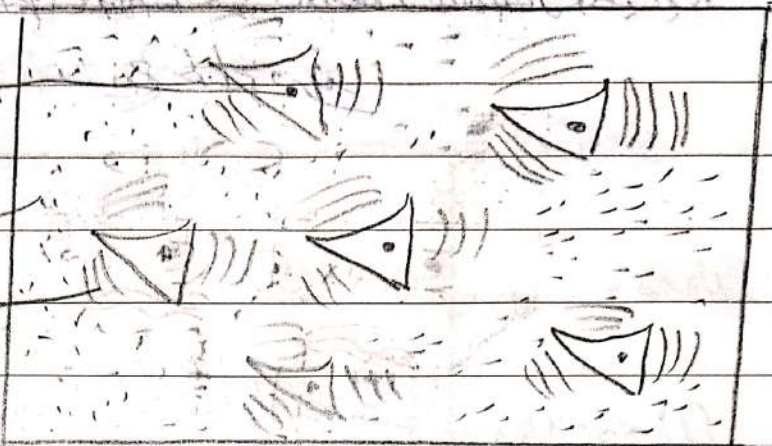


⑤ mucous cot

Fibro cyte

matrix

white fibre



* تظهر تحت الميكروكوب

الخطوط بين الخلايا

⑥ Adipose cot.

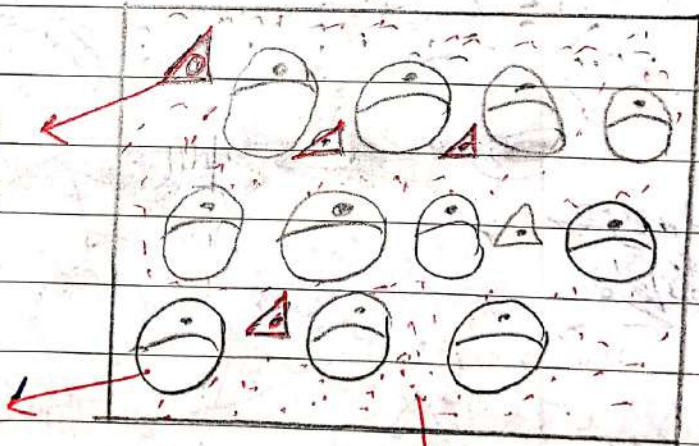
نسيج الضام الدهني

* تظهر تحت الميكروكوب
شريحة فاجيد في عيناها خطوط
بها

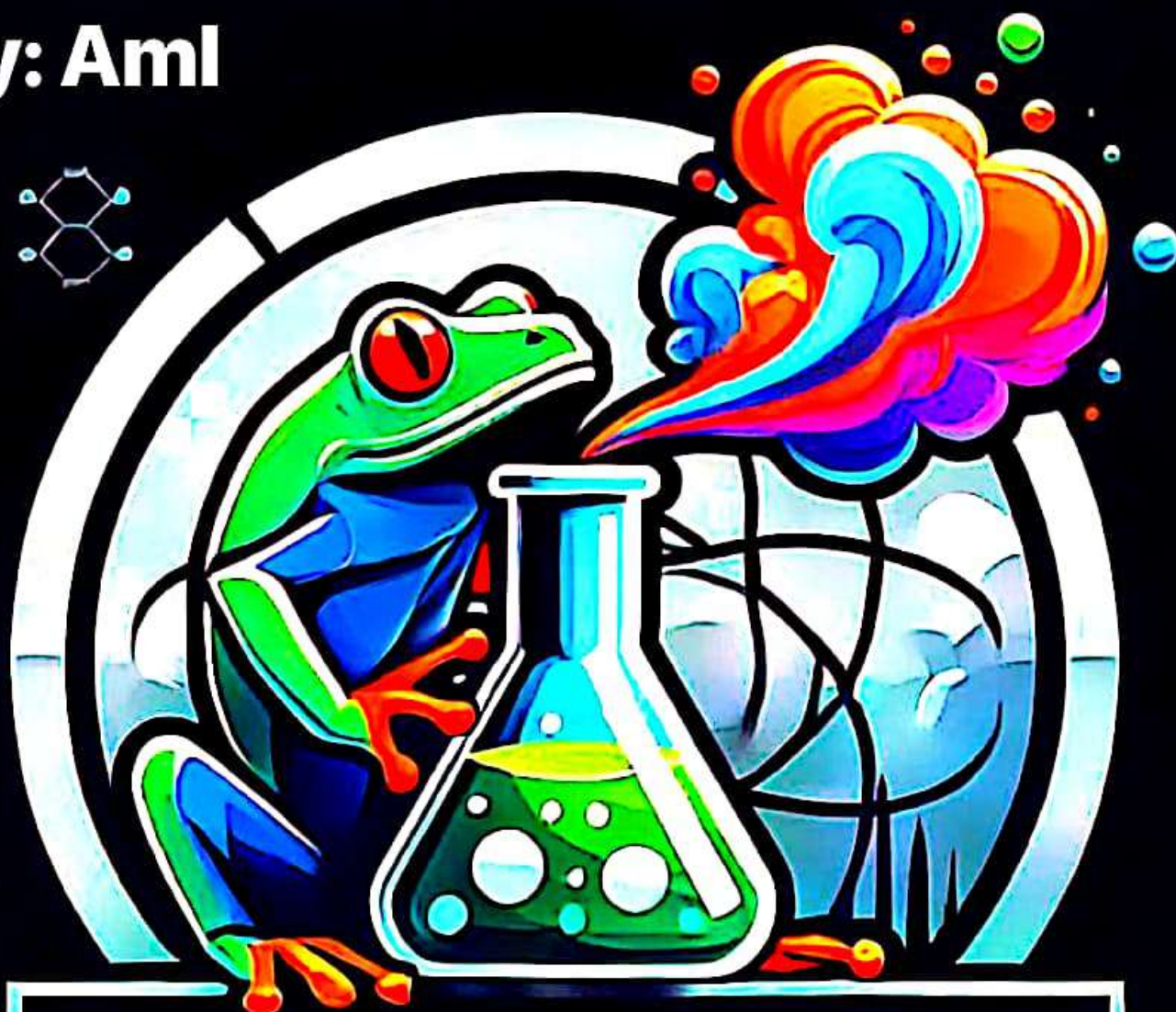
Fibro
cyte

fat cell

matrix



By: Aml



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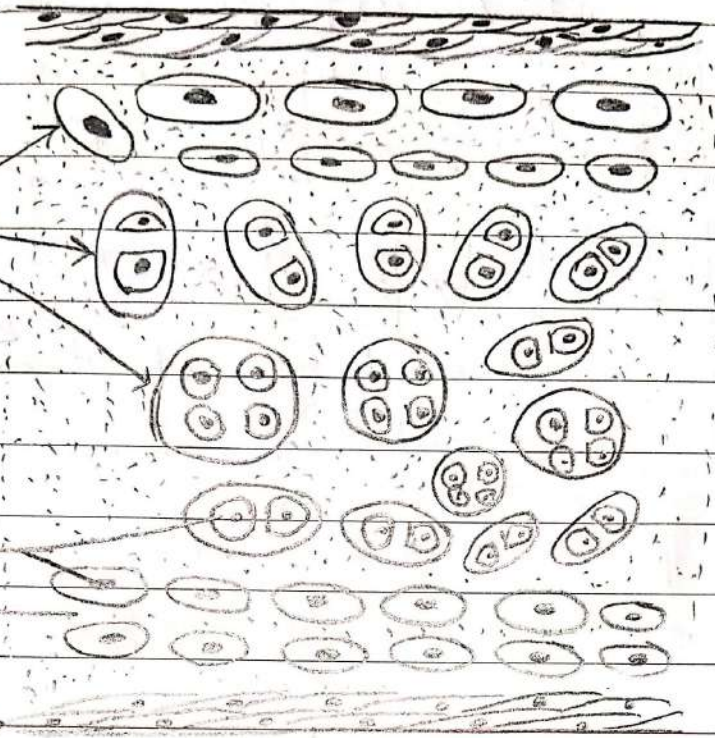
* Hyaline Cartilage:

Perichondrium →

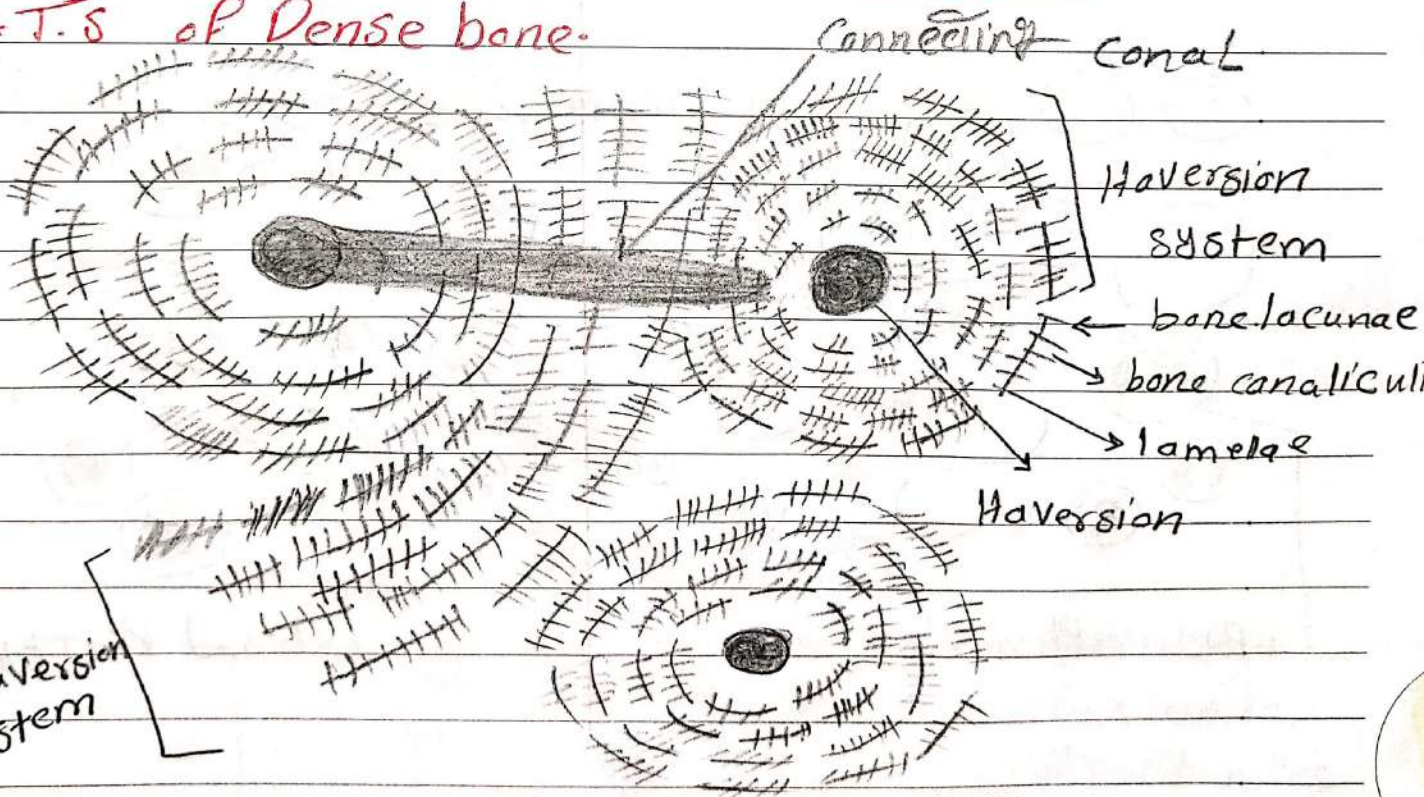
Capsule

Chondrocytes
matrix

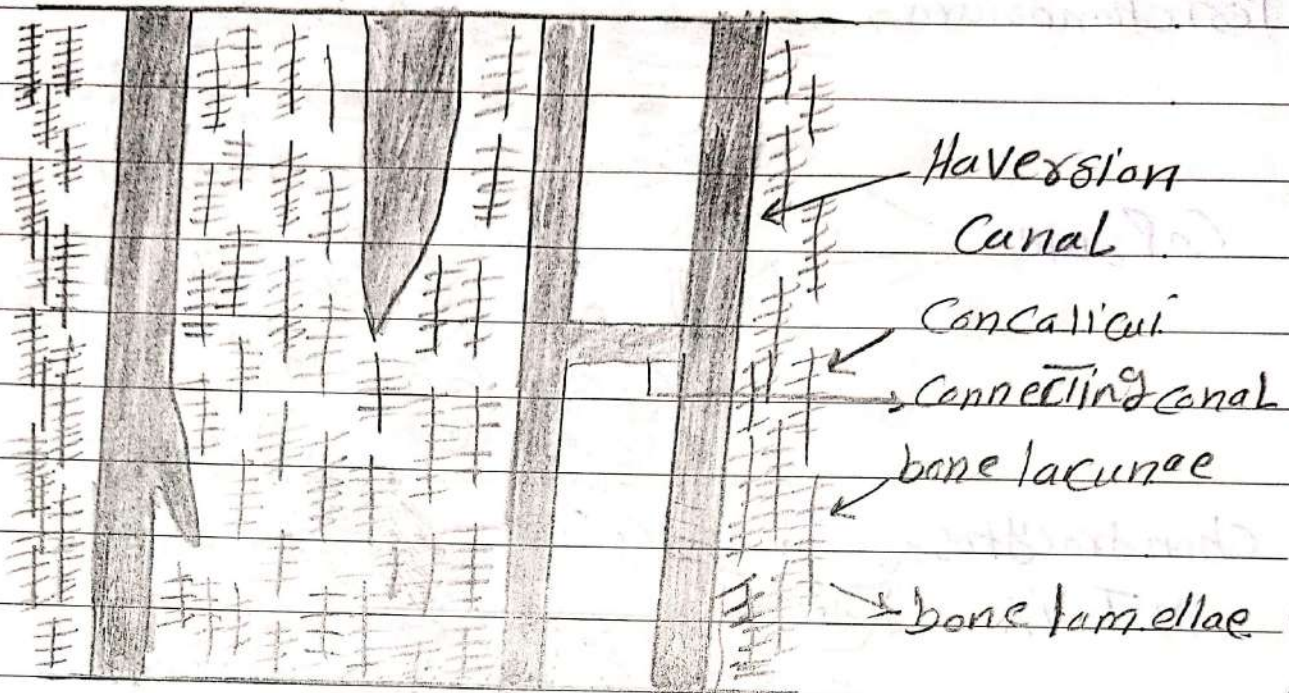
Perichondrium →



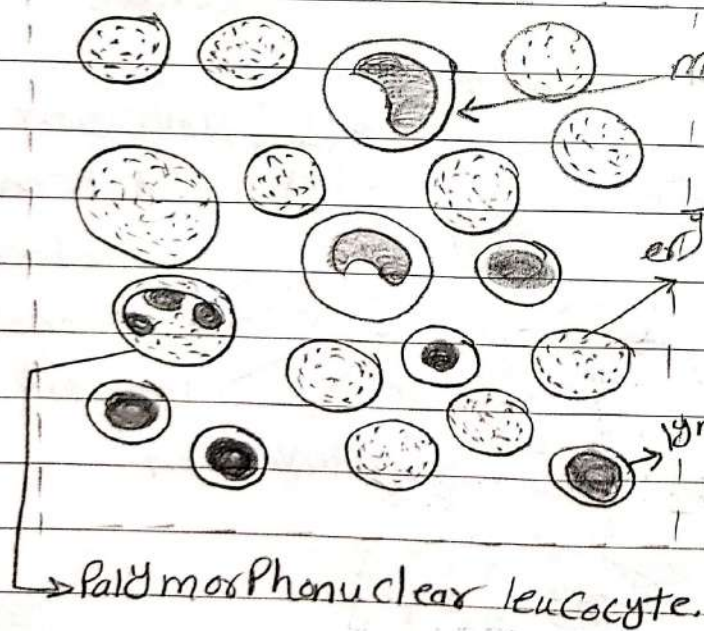
* T.S of Dense bone.



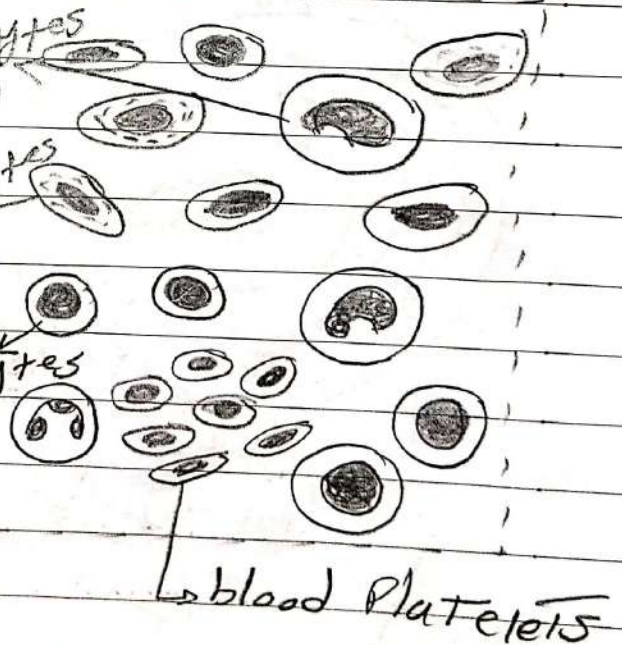
* L.O.S of Dense Bone



* Blood film of man



* Blood film of toad



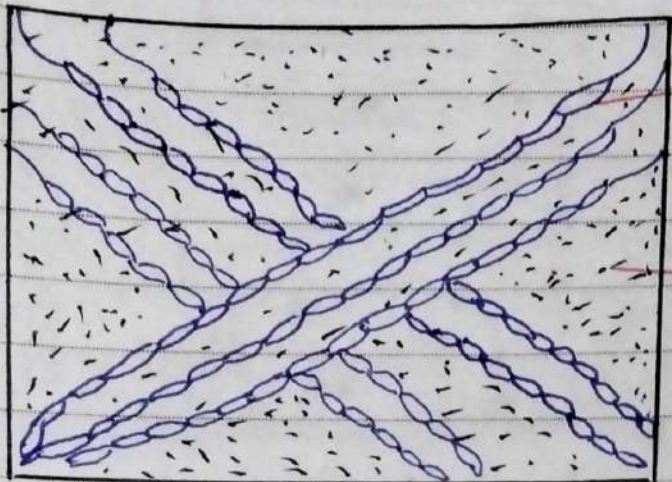


Lecture: **Sec 3**
Zoology
"Histology"

By: **Ahmed Salah**

اللَّهُمَّ انْفَعْنِي
بِمَا عَلَّمْتَنِي
وَعَلَّمْنِي مَا
يَنْفَعُنِي وَزِدْنِي
عِلْمًا

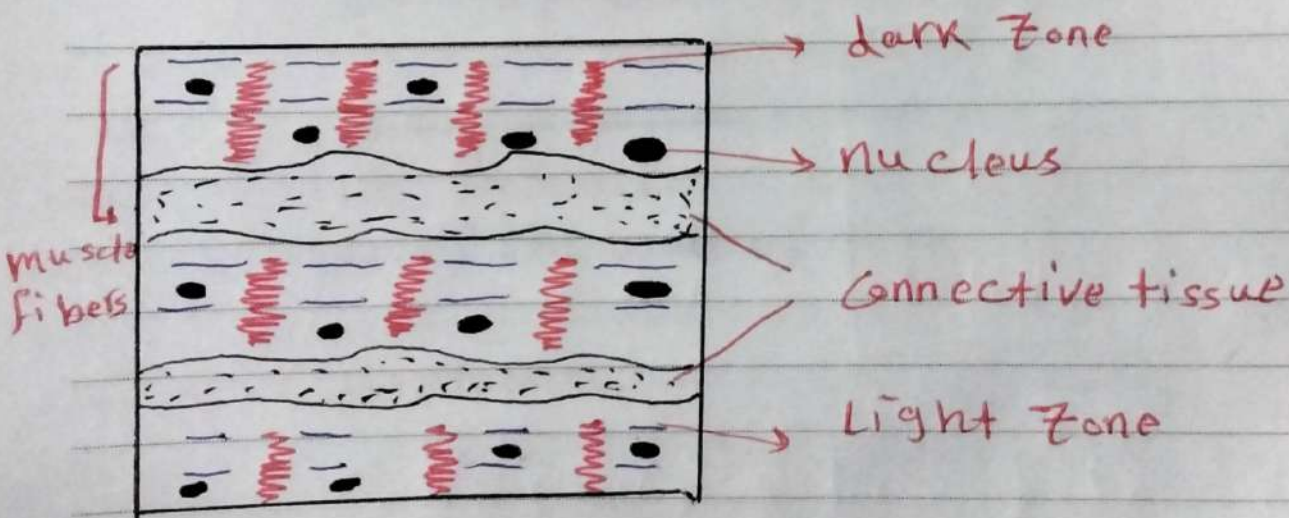
Muscular tissue



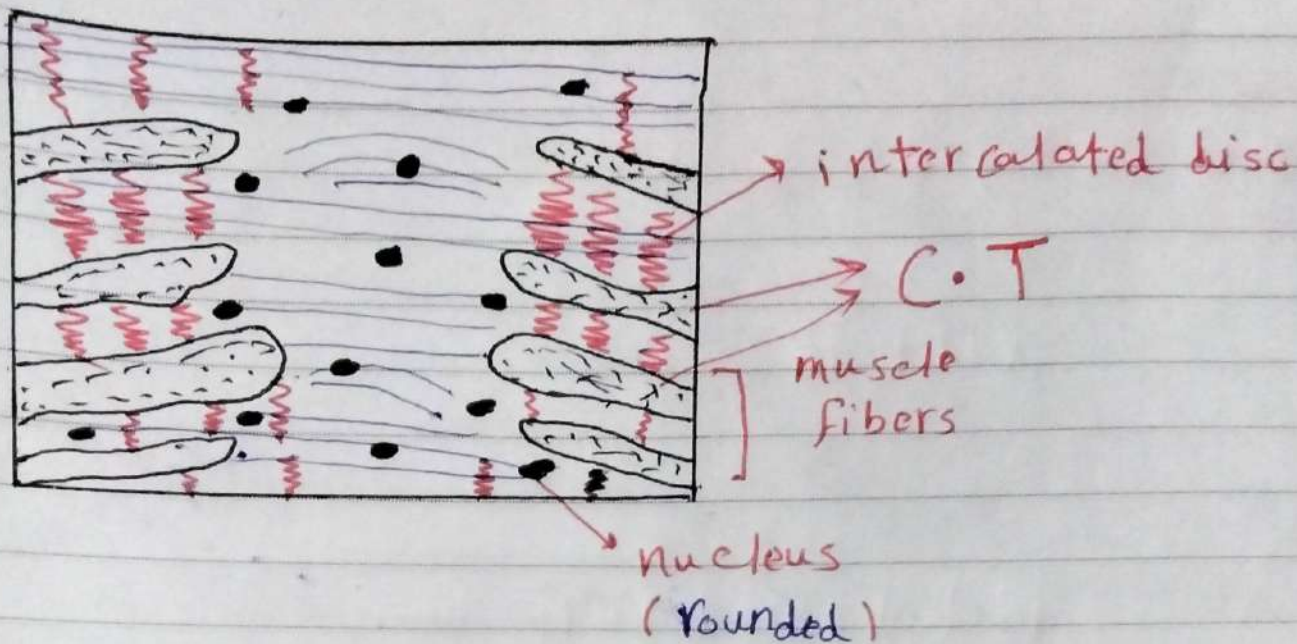
→ myofibers

→ matrix

“ unstriated muscle fibres ”

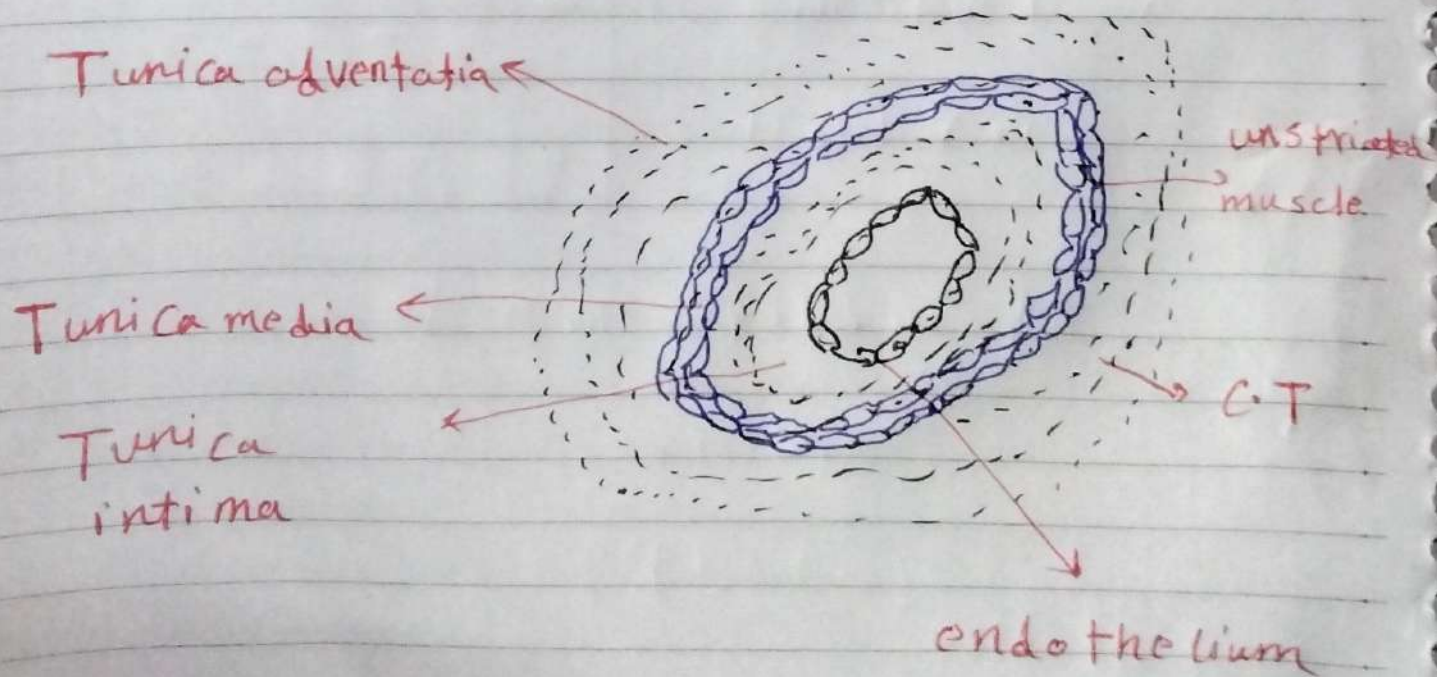


“ L.S in striated muscles ”

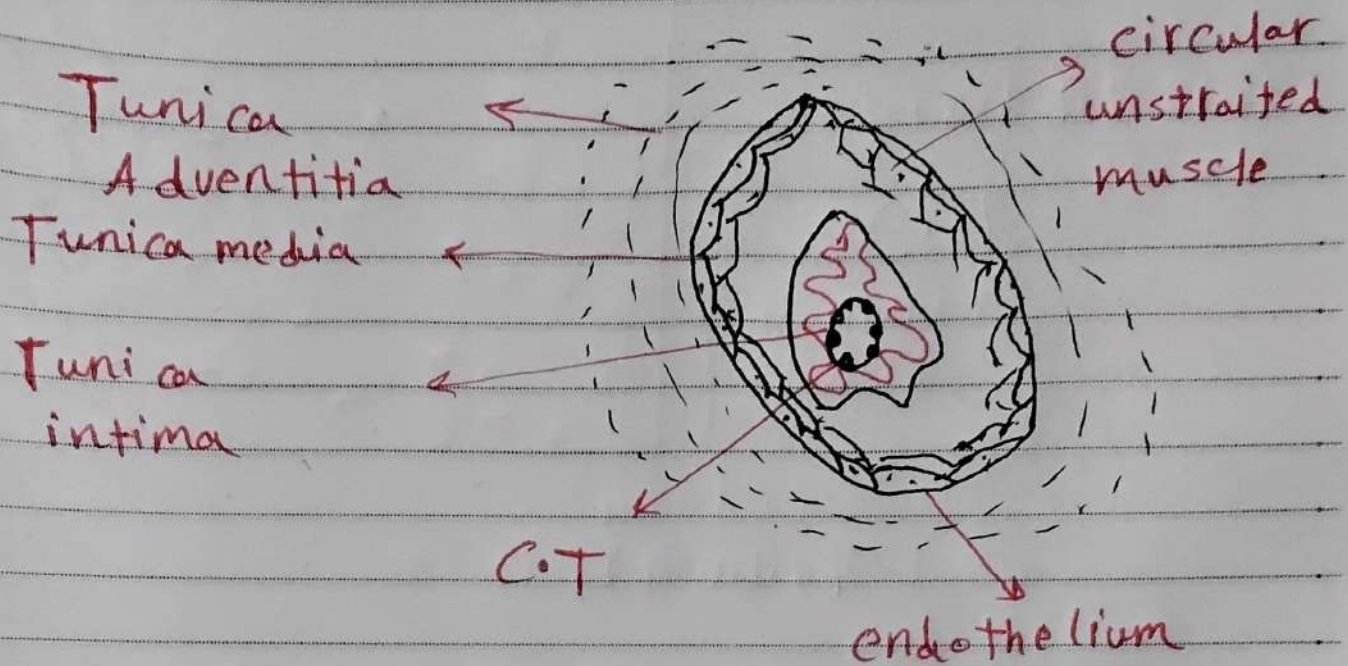


(L.S of cardiac muscle)

★ Blood Vessels
sector of the wall of Vain



★ Sector of the wall of artery :



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

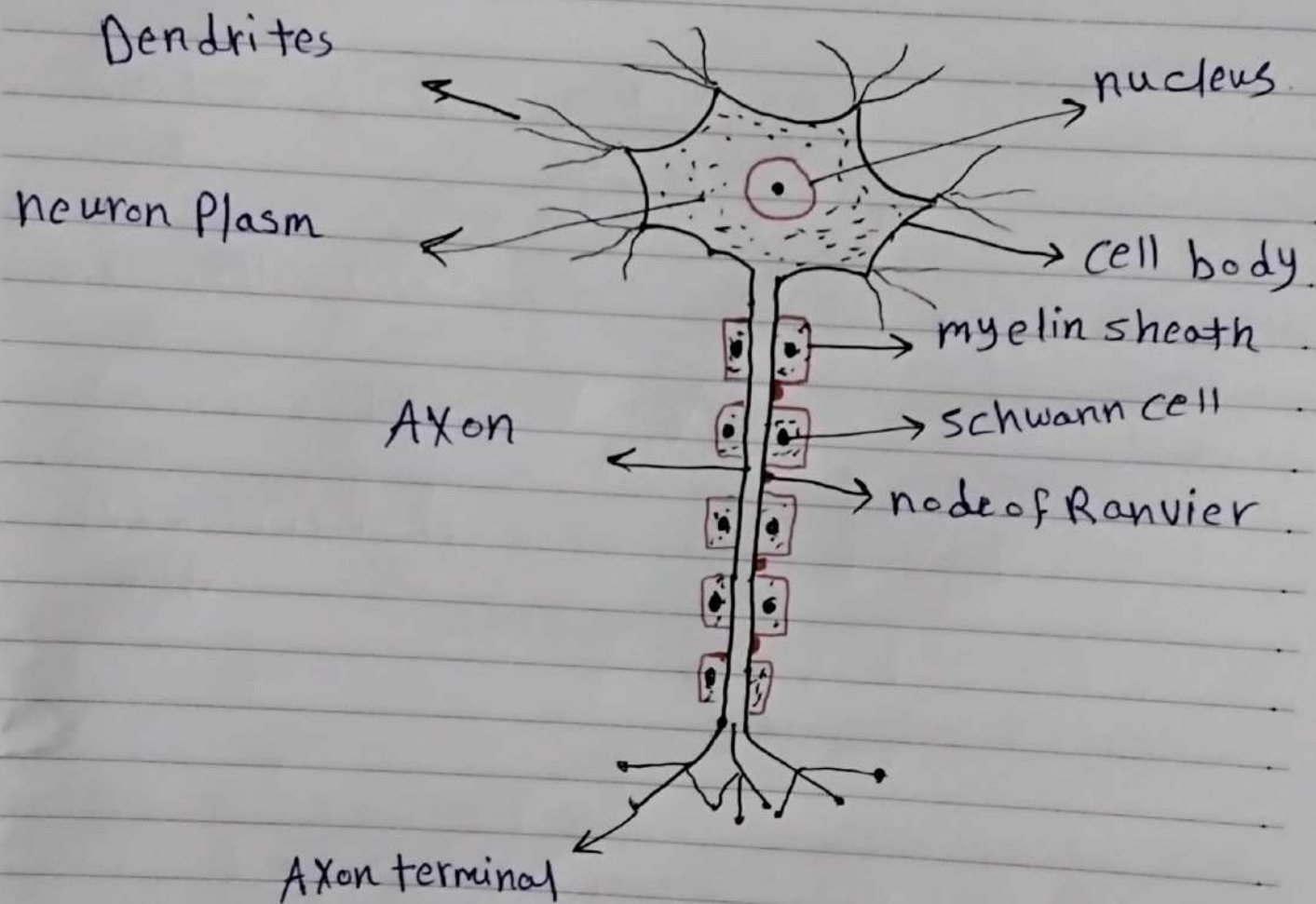
Sec 4
Zoology
Nervous system

By: Ahmed Salah ✍️

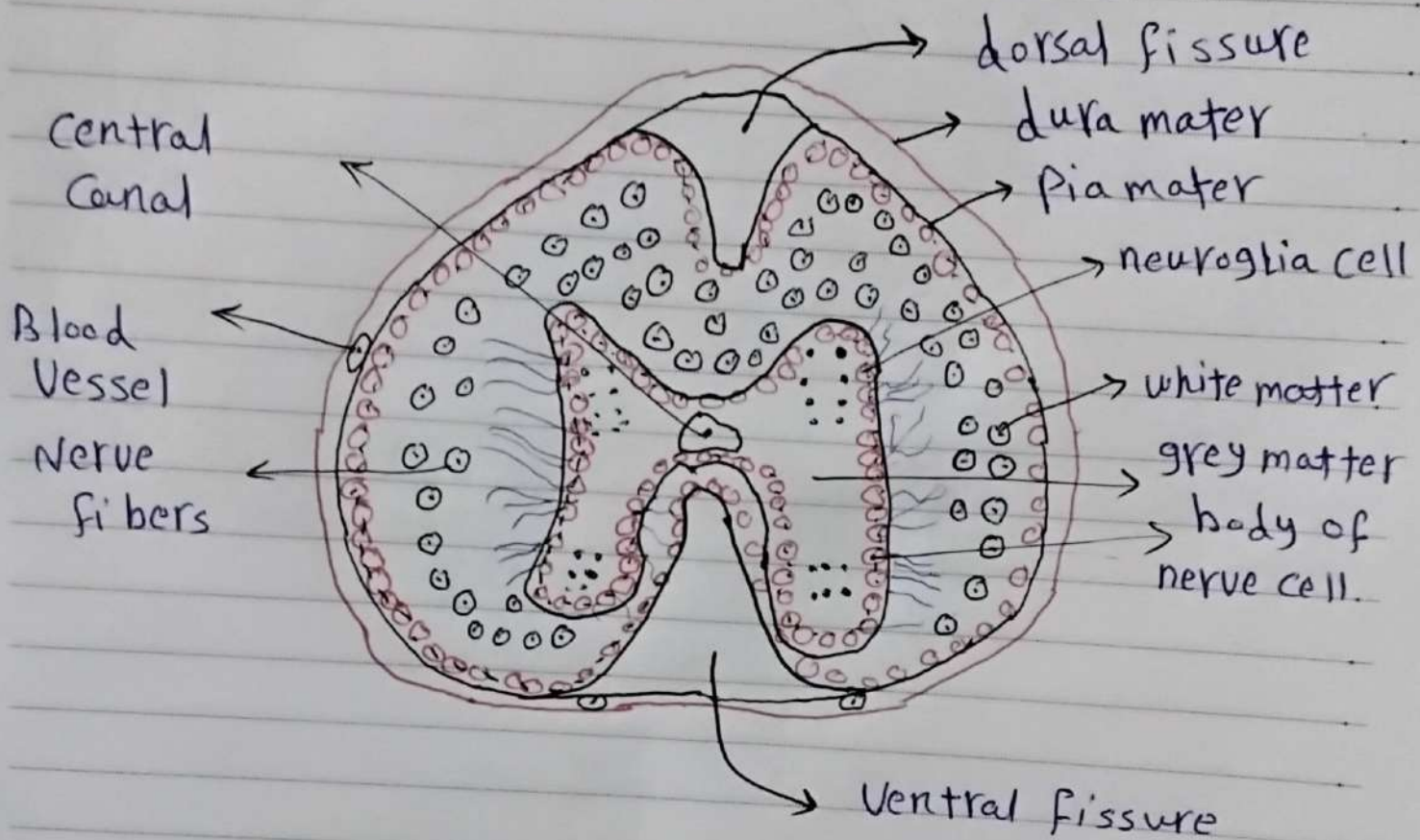
* Nervous system

* Structure of a neuron

نعالي نعرف شكل الخلية
العصبية ←

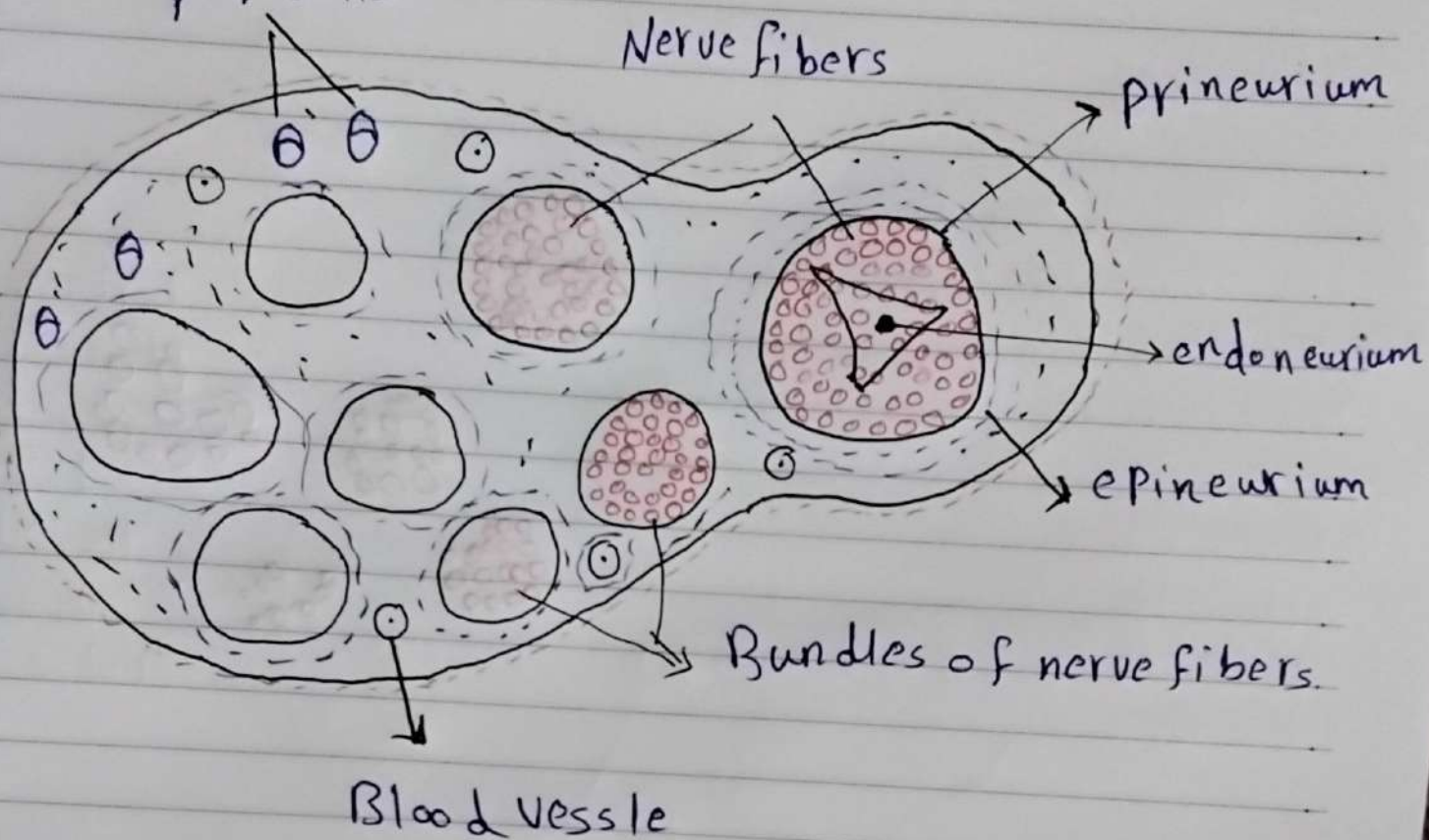


★ T.S of Spinal Cord of the Rabbit



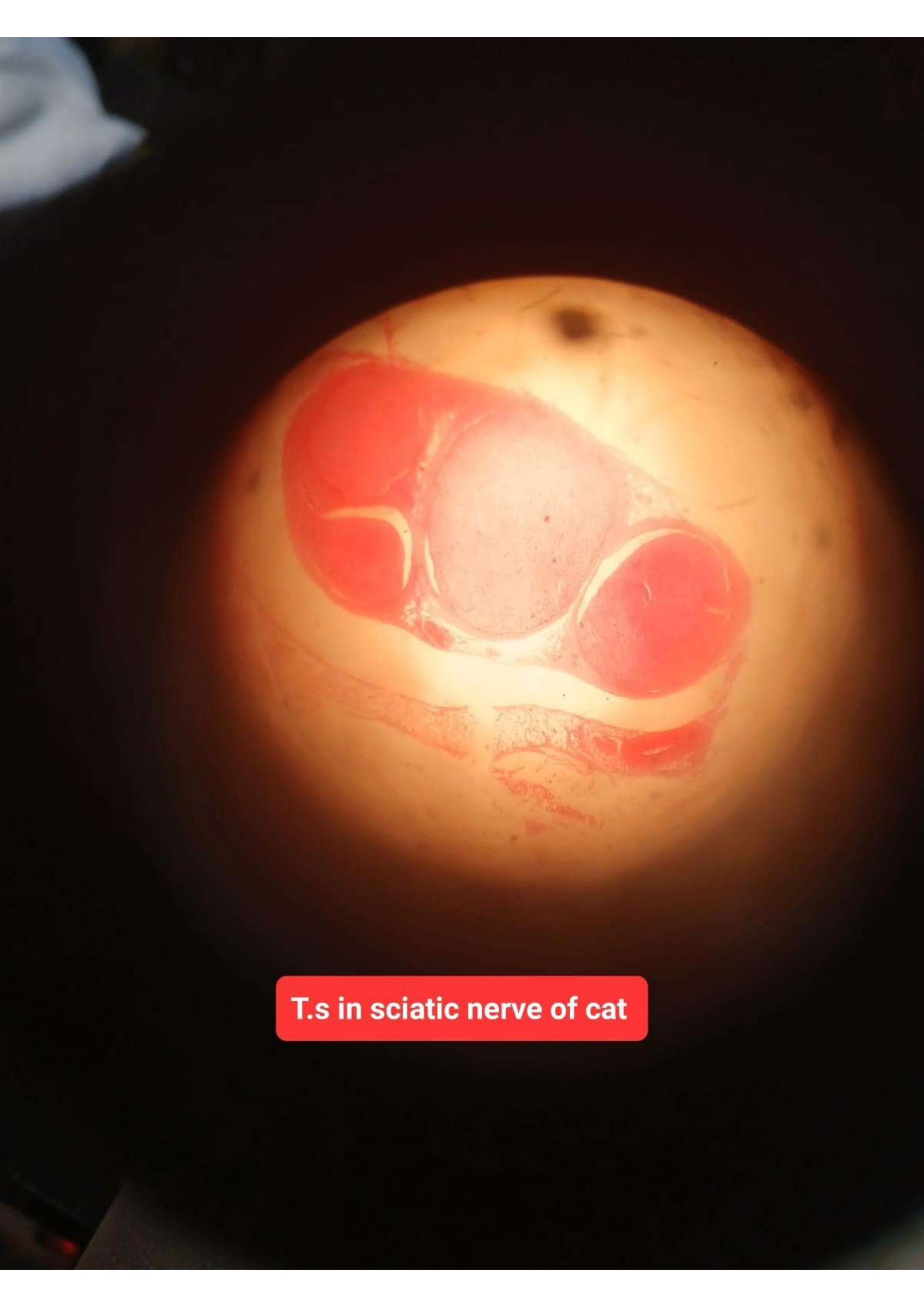
★ السريحة من برا فتلاقيها واحدة حرف ال (H) تحت الميكروسكوب ركز فتلاقي ال (central canal) واضحة والمنطقة الى حولها واحدة حرف (H) وغامقة شوية عشان فيها ال grey matter

★ T.S in sciatic nerve of Cat

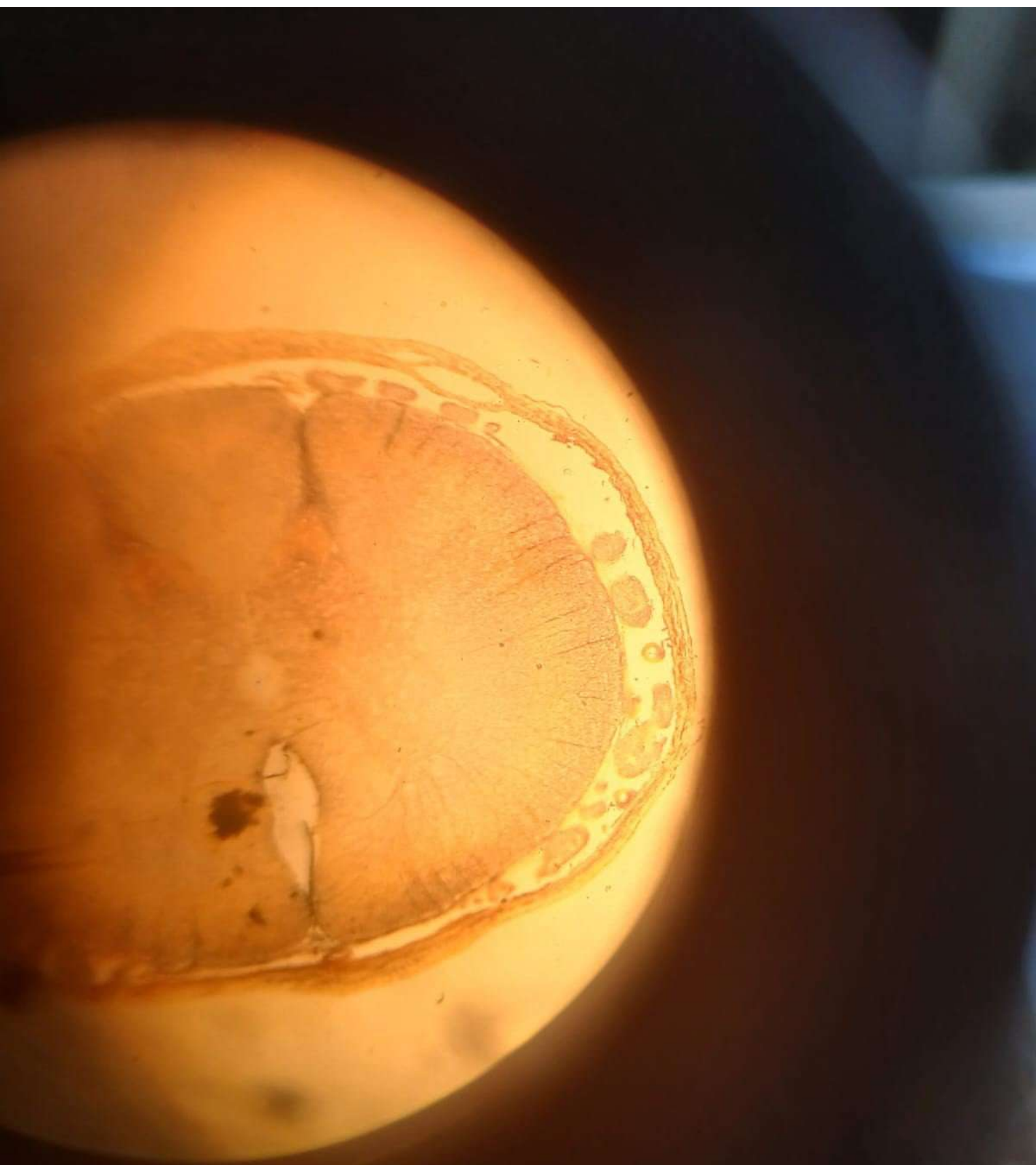


★ شكل القطاع تحت الميكروسكوب زى الرسمة وفكلاعى شكل

ال " Bundles " واضح اوى تحت الميكروسكوب



T.s in sciatic nerve of cat



T.s of spinal cord of the Rabbit



T.s of spinal cord of the Rabbit



T.s in sciatic nerve of cat