

HISTOLOGY PRACTICAL LECTURE - 7 -

MUSCULAR TISSUE

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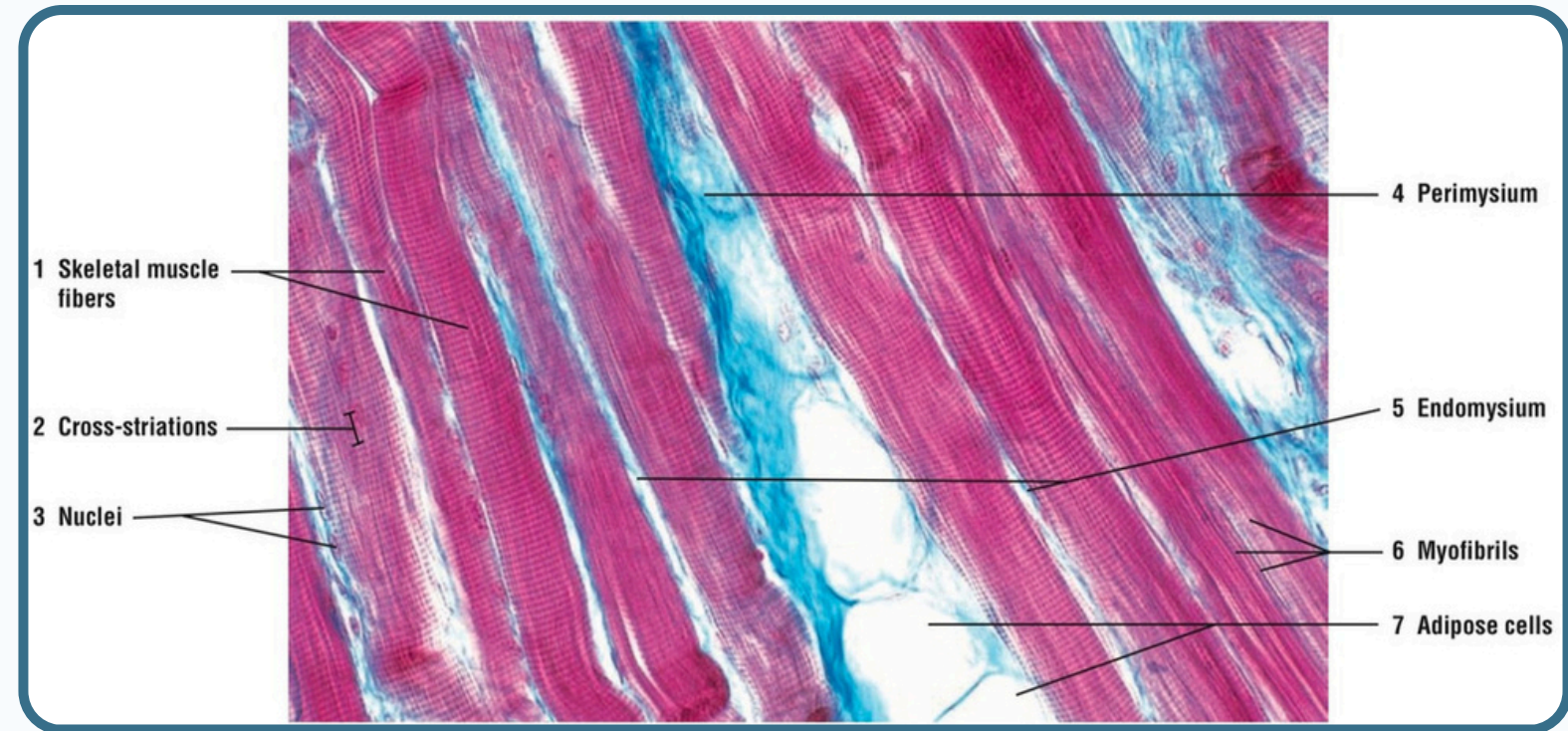
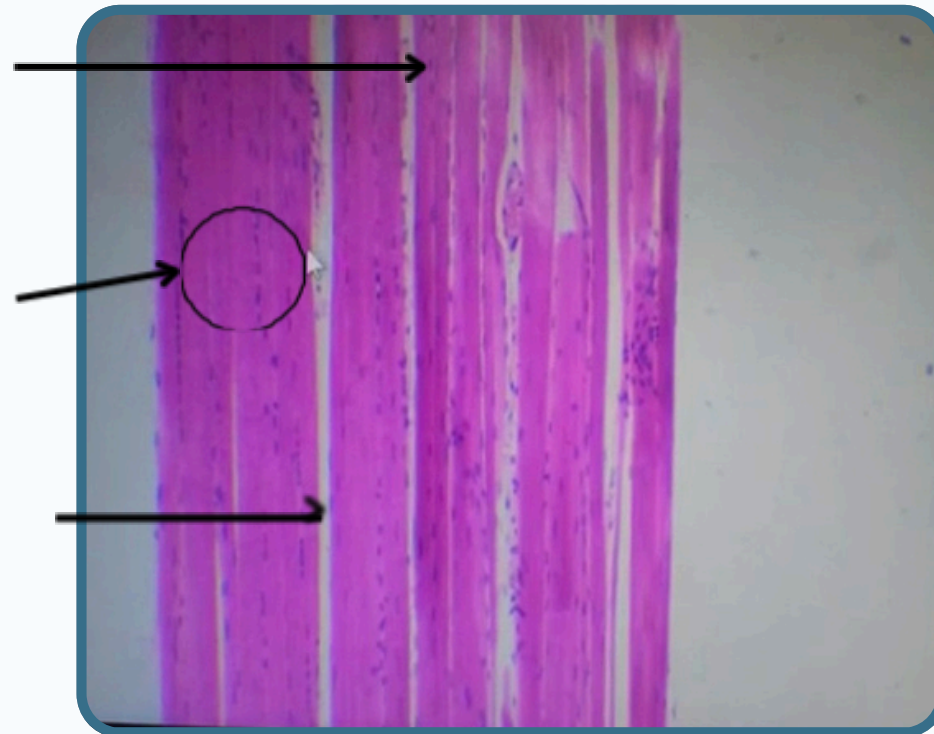


Longitudinal section in the Skeletal (striated) muscle

Elongated **nucleus** Found peripherally just under the sarcolemma

Bundles of muscle fibres each bundles called **fascicles**

Perimysium thin layer of connective tissue surround the each bundle s of muscle fibres



-This muscle consist of muscle fibres which are very long **cylindrical** and **multi nucleated**

-thin layers of connective tissue surround and organized the contractile fibres in three types of muscle :-

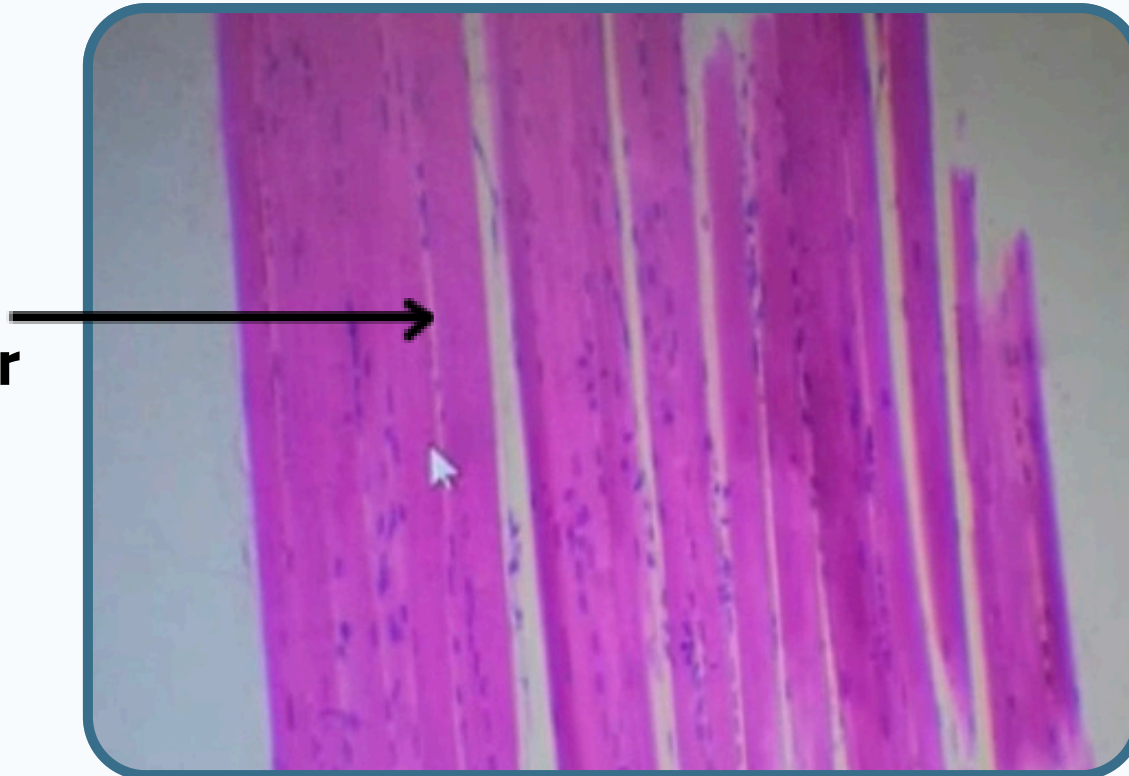
First layer called **epimysium** (external sheath surround the entire muscle).

Second layer **perimysium** (surround the bundles of muscle fibres).

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Each (individual) muscle fibres surrounded by delicate layer of **reticular fibres** and **scattered fibroblast** called **endomysium**



Nucleus
perimysium
Striations **Dark(A)band**
light (I) band

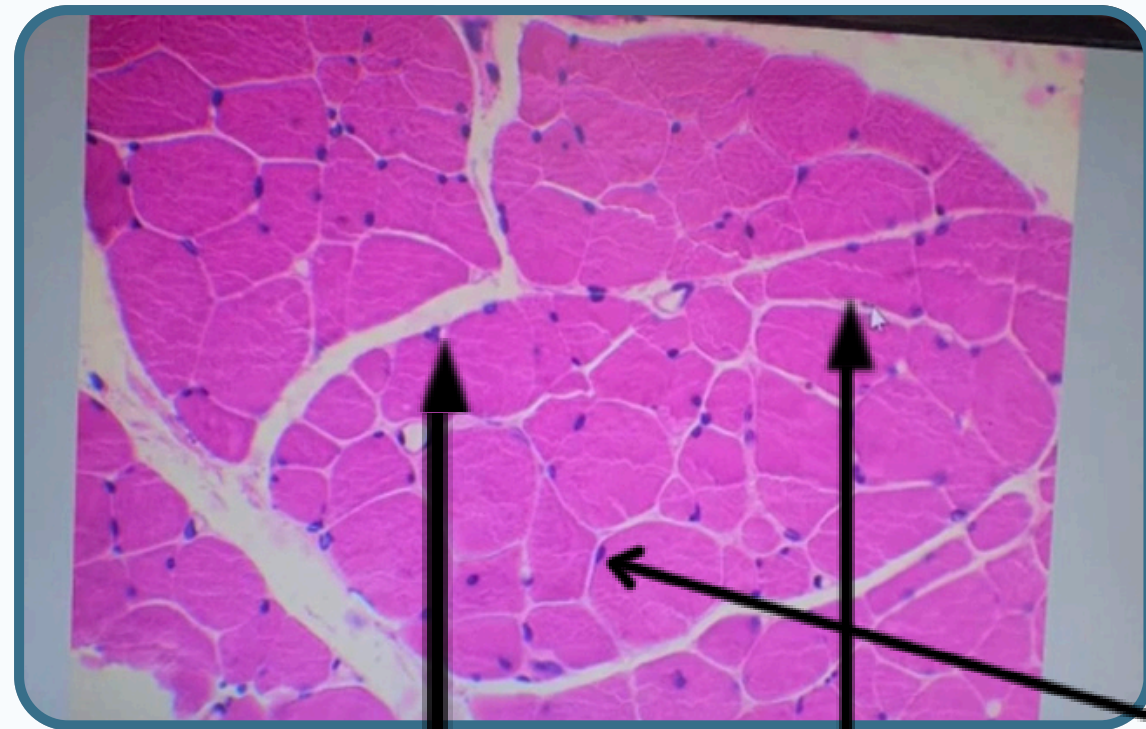




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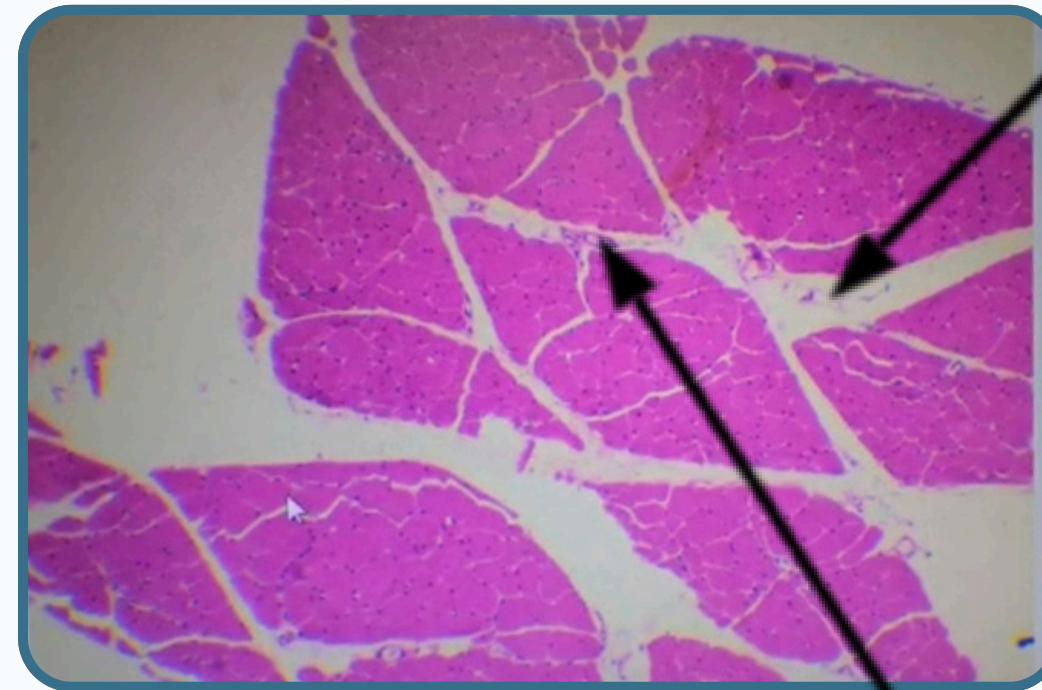
Cross -section (bundles of striated muscle fibres)



Perimysium

Endomysium

Peripheral located Nucleus



Perimysium

Blood vessels within the perimysium



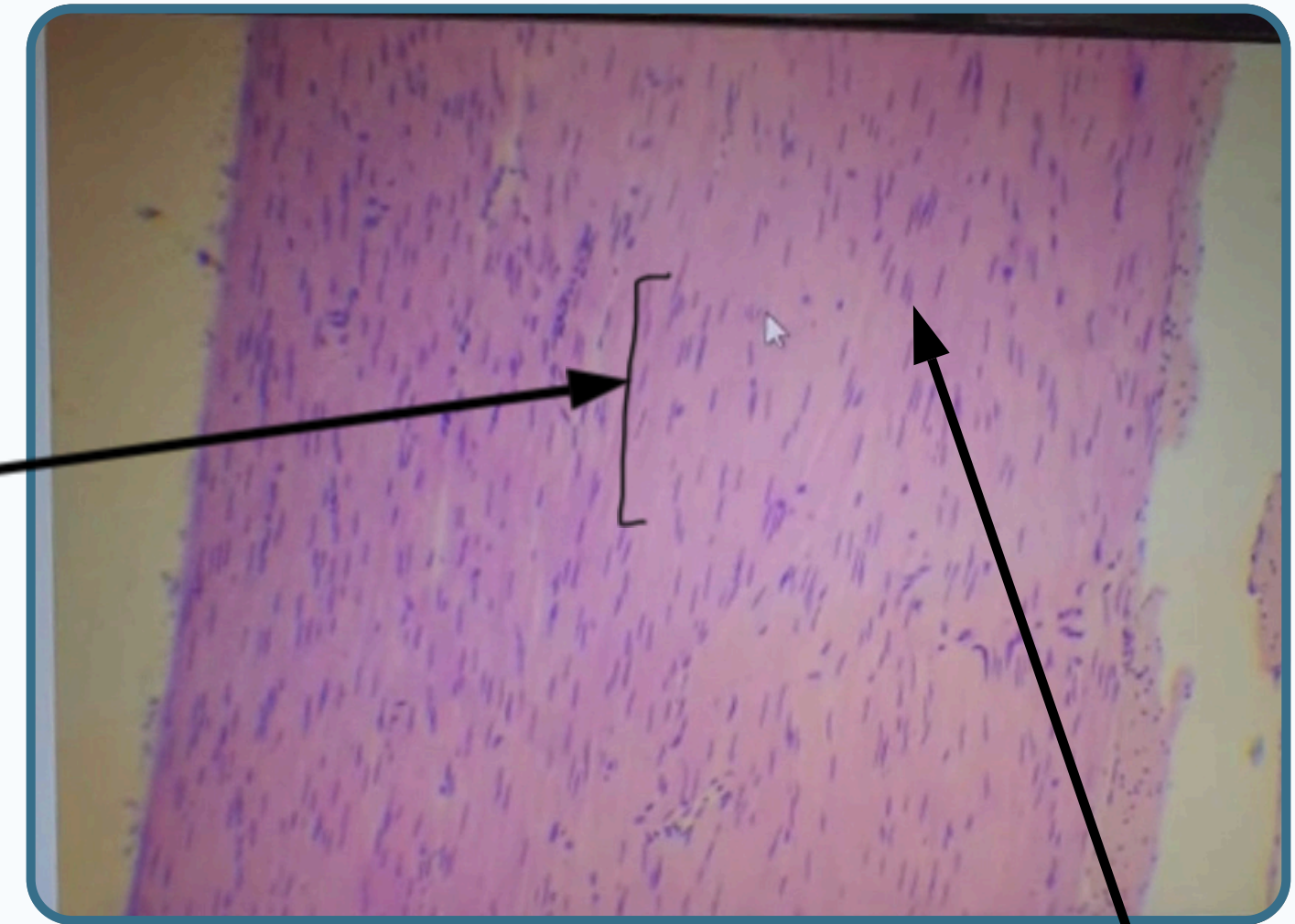
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Smooth muscle fibres



Elongated
fusiform muscle fibres



Elongated centrally located **nucleus**

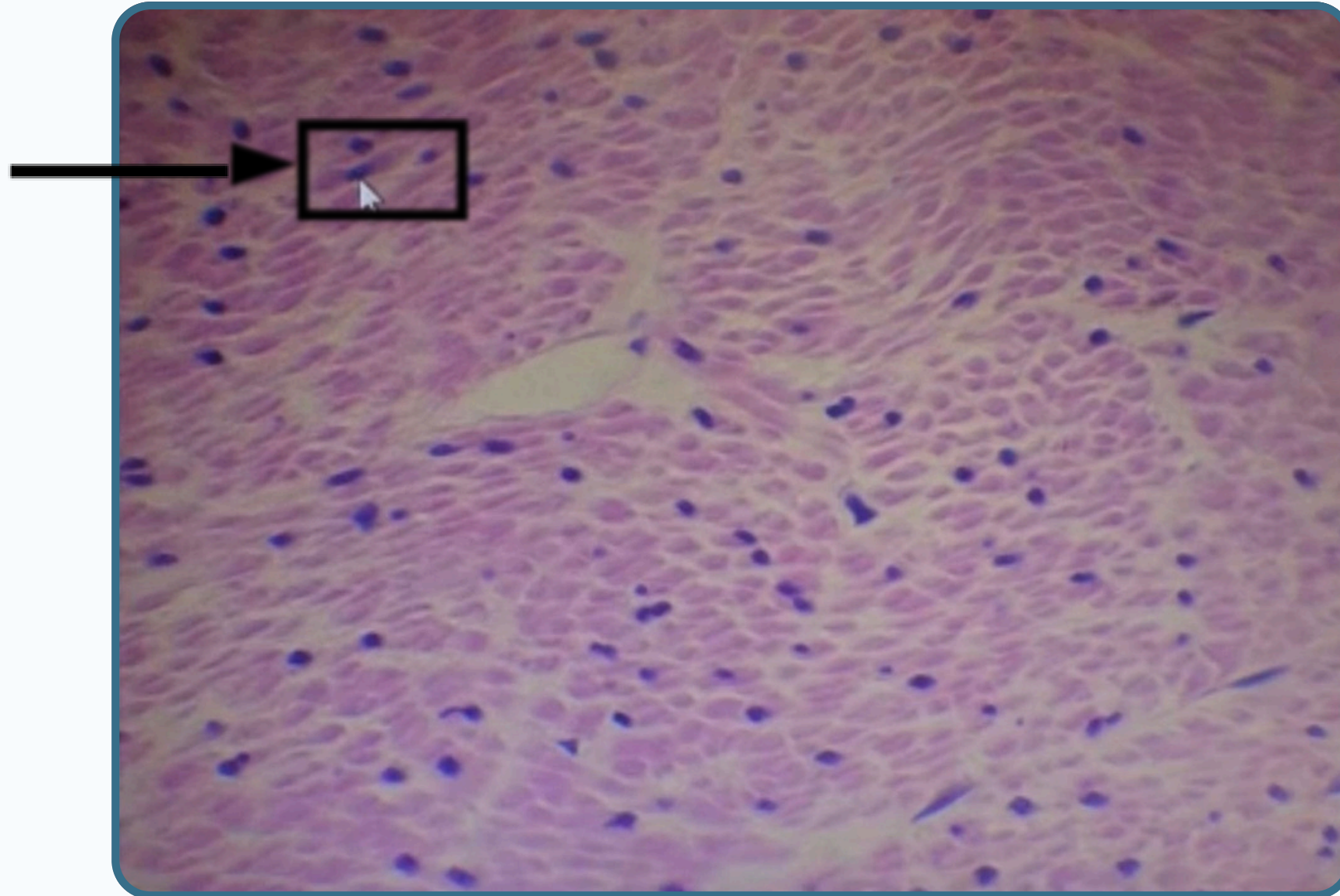


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Cross section in smooth muscle (mosaic pattern)

Each smooth muscle fibres consist of **wide** mid portion and two **tapering** end.
*(wide mid portion located adjacent to the tapering end of neighbouring cell).



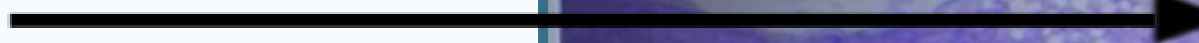


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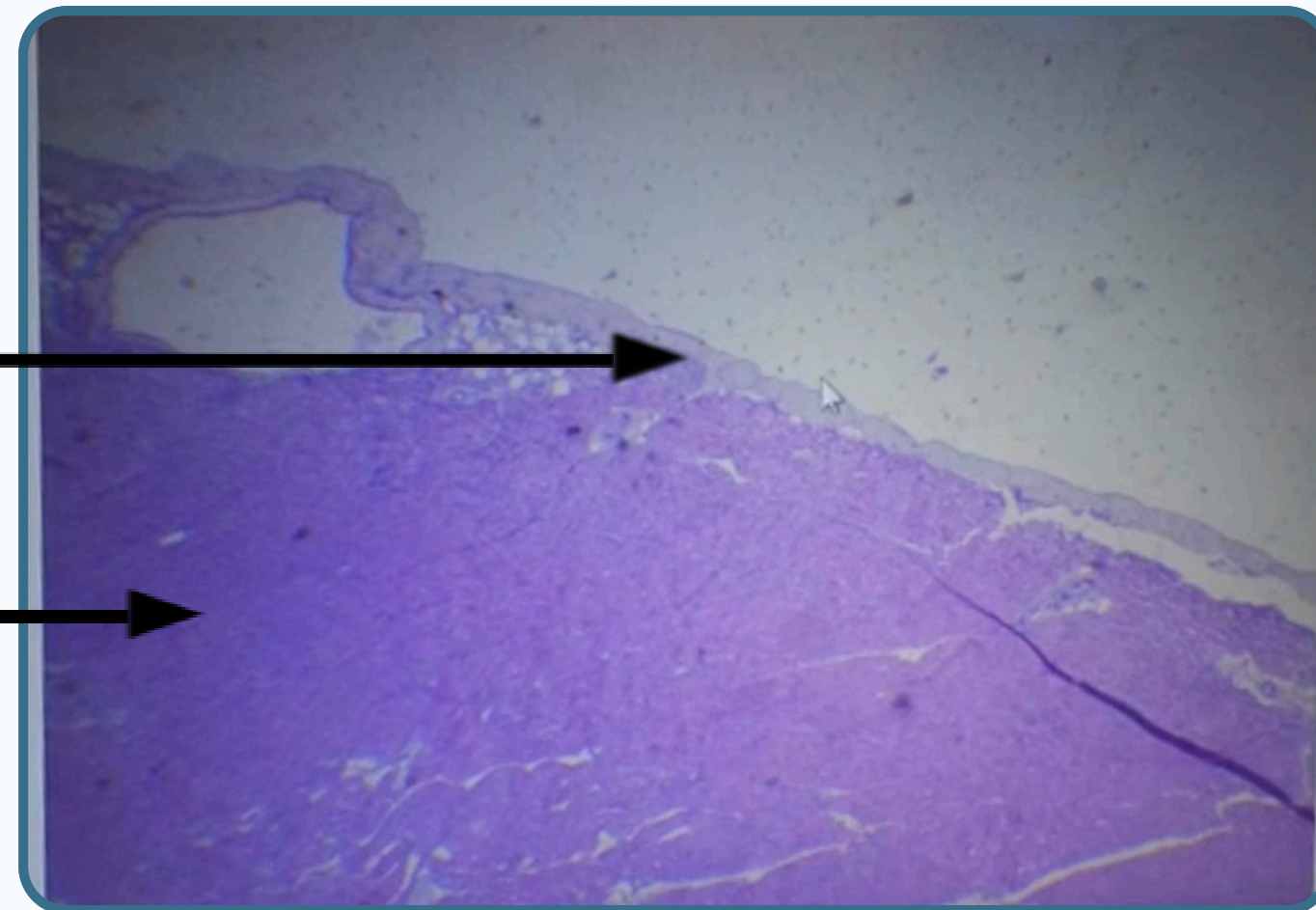


Cardiac muscle

Epicardial

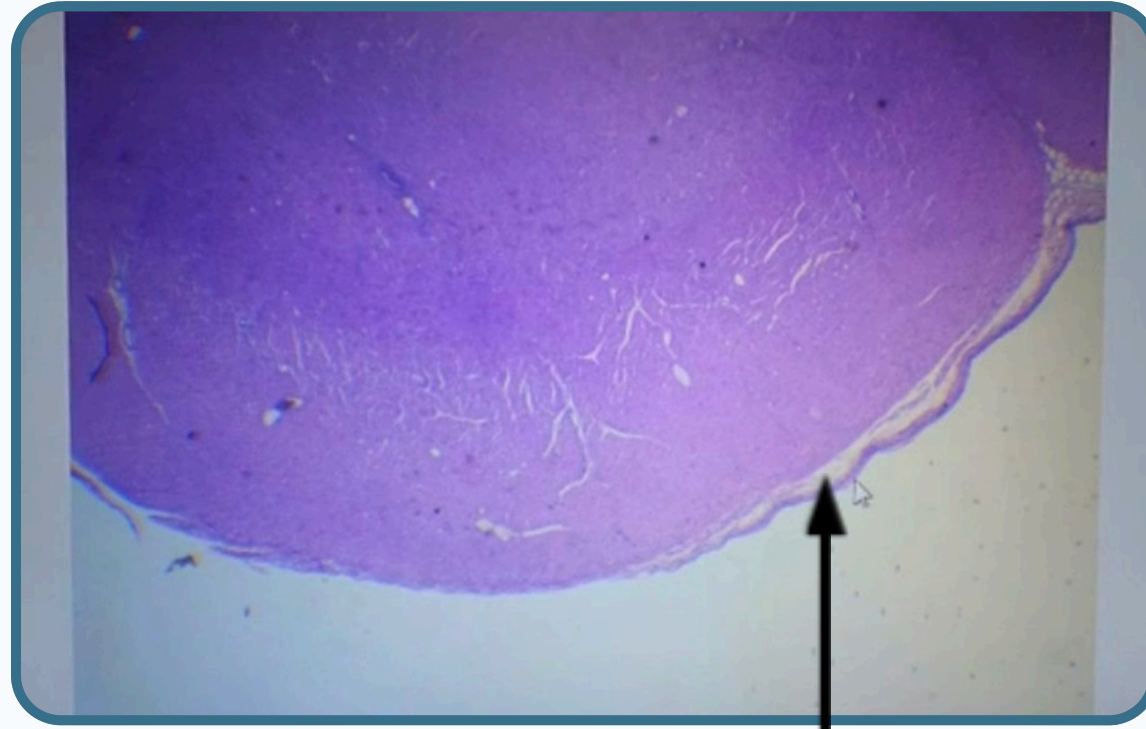


Myocardium (consist
of cardiac muscle)

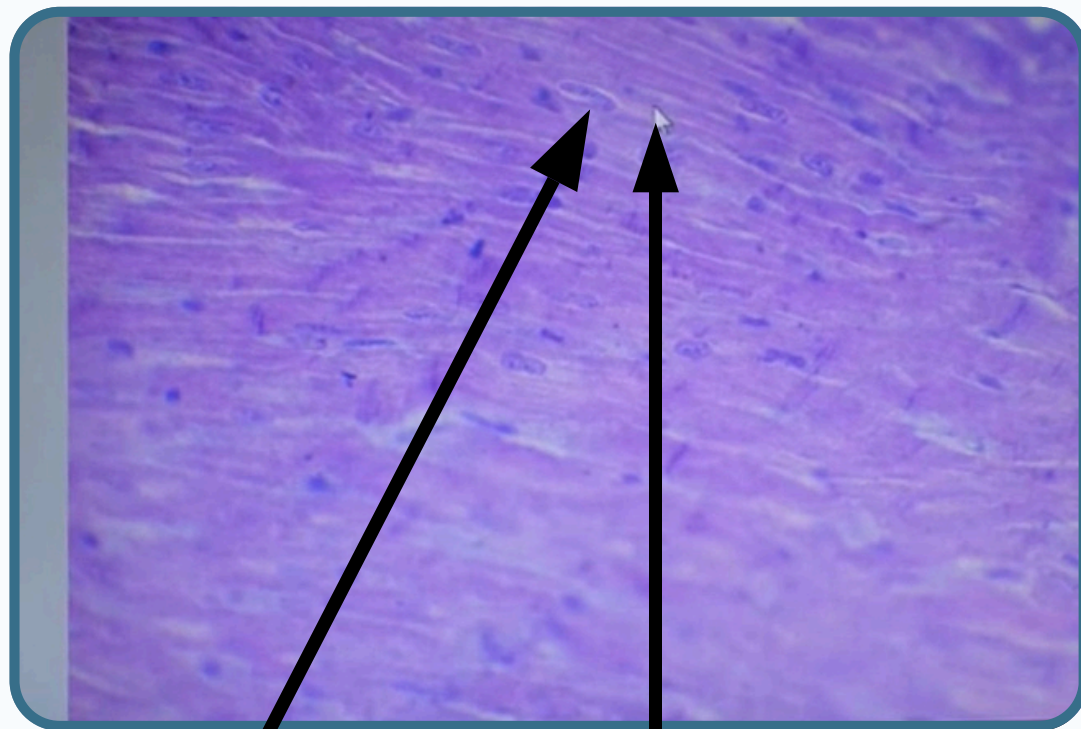




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Endocardium



Centrally placed **nucleus**

Cross striation **dark** and **light** band (Branched fibres)

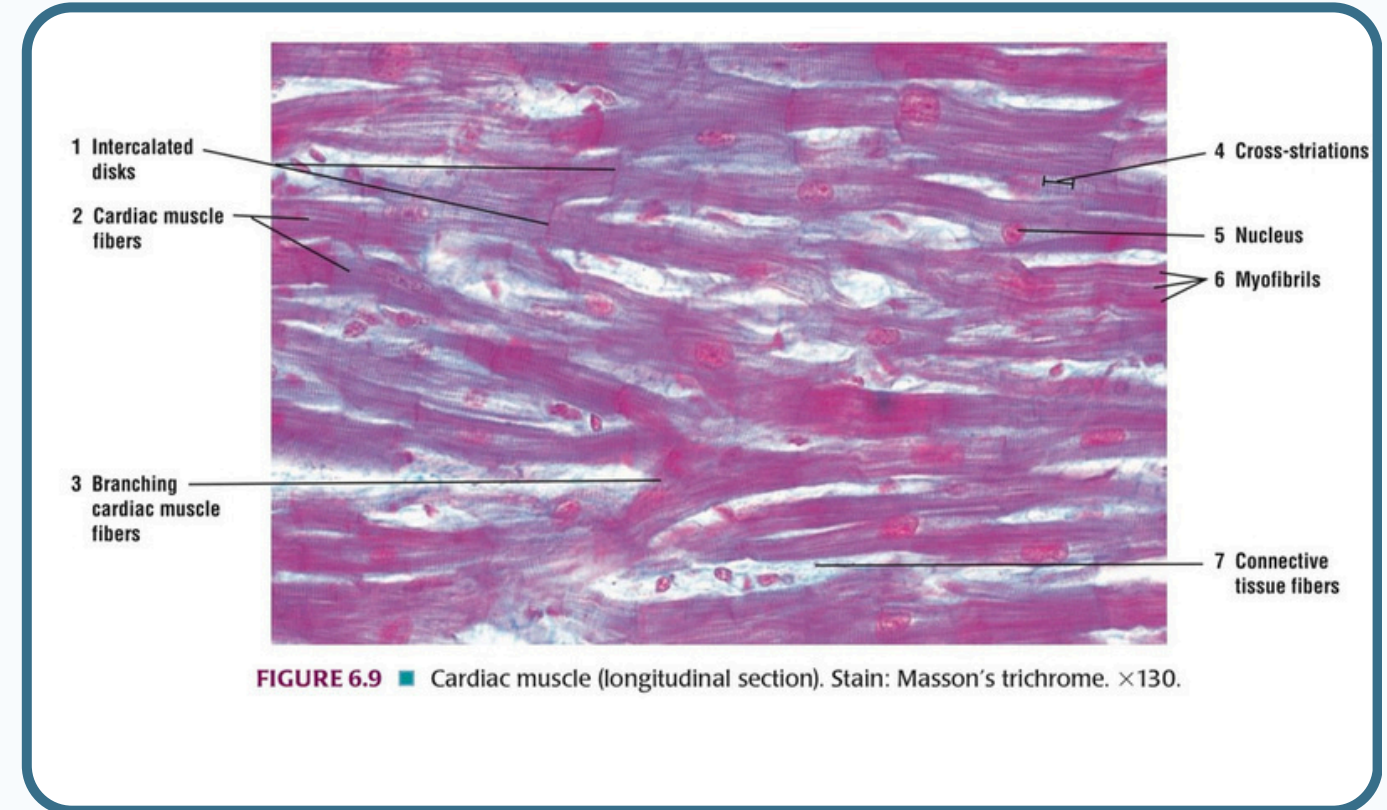


FIGURE 6.9 ■ Cardiac muscle (longitudinal section). Stain: Masson's trichrome. ×130.

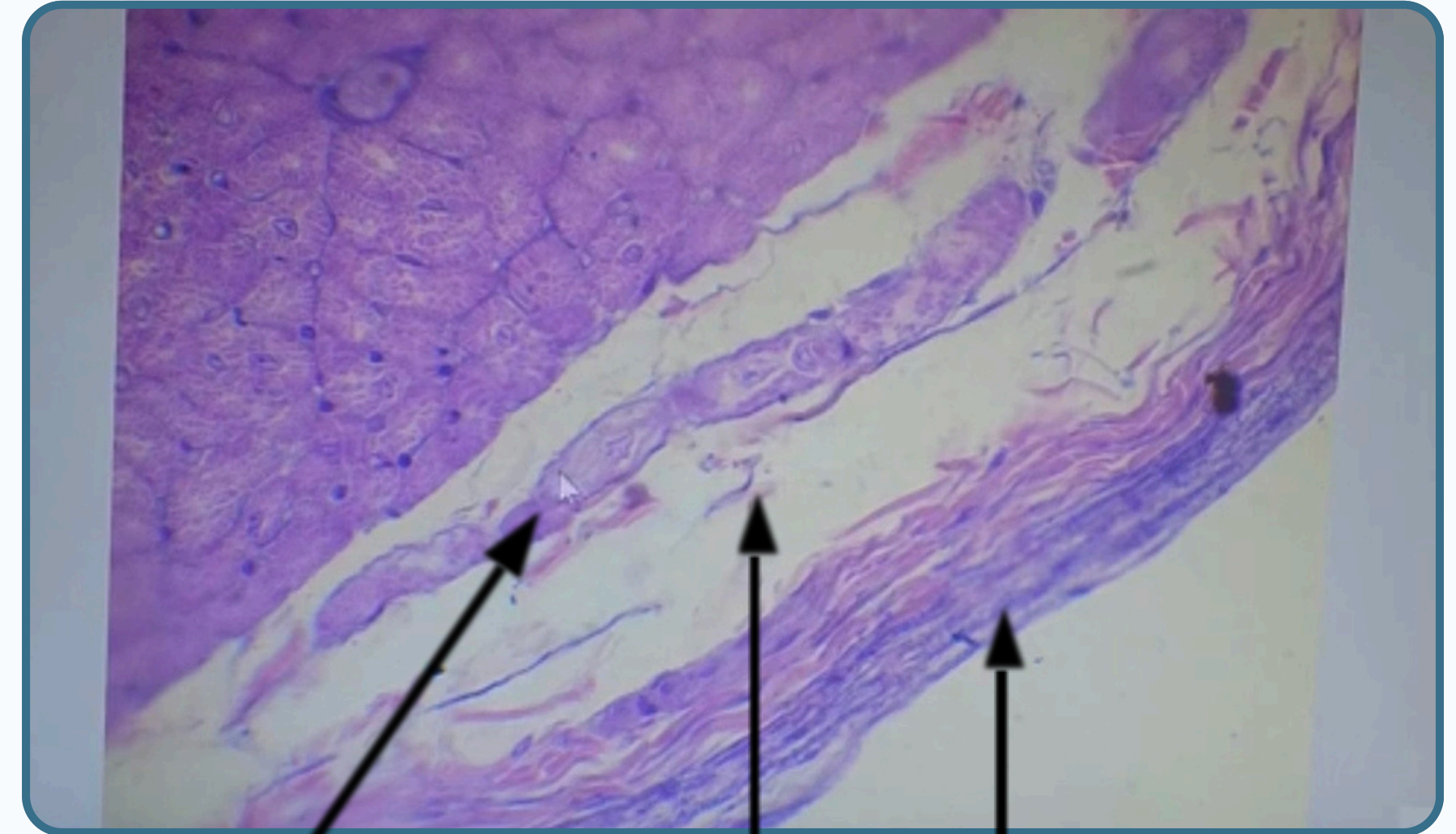
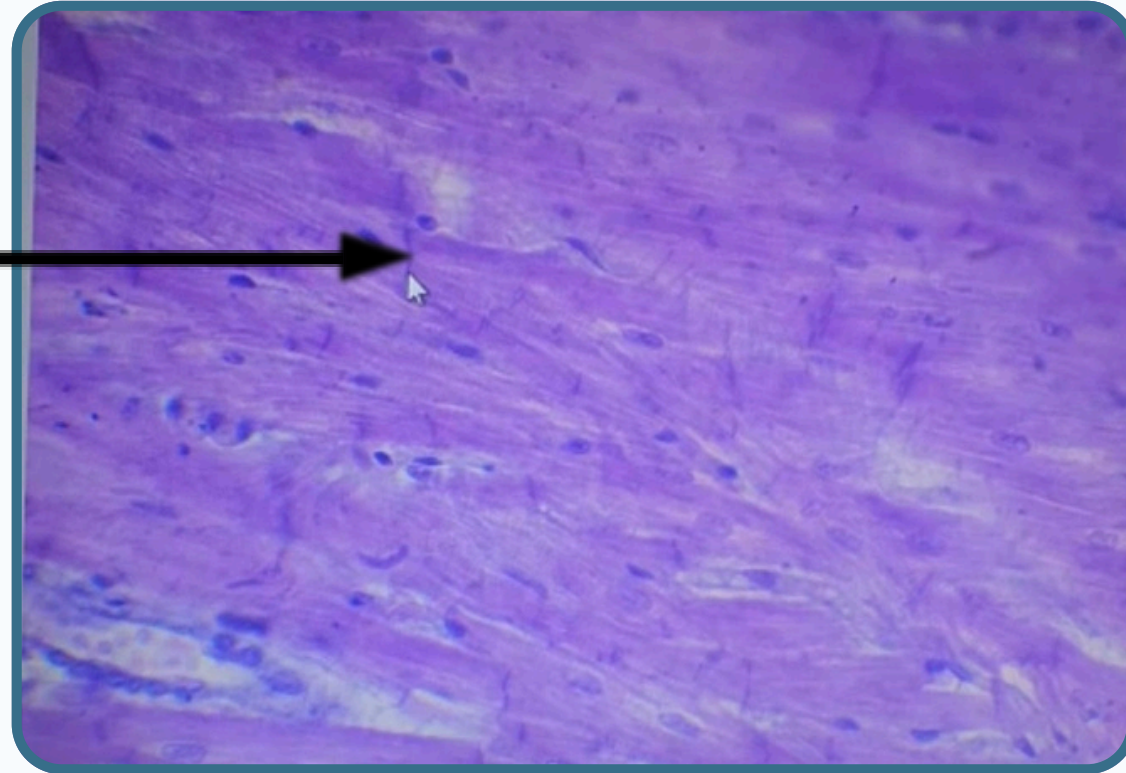
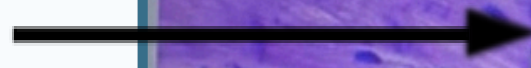


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Intercalated disk

Is a dark stained structure The main characteristic feature of cardiac muscle

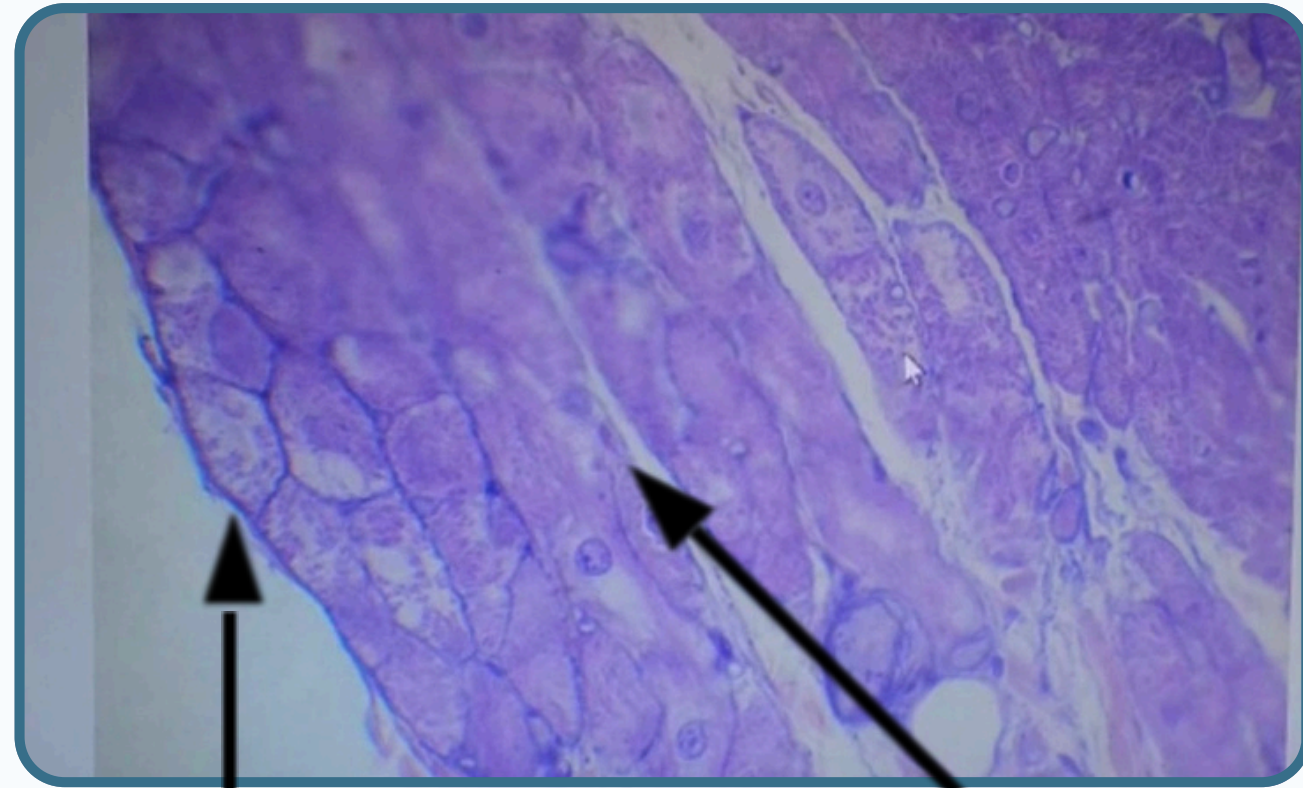


Purkinje fibres within the sub endocardial layer
(Modified muscles fibres
Branch of conductive system and have centrally placed nucleus Surrounded by lightly stained area called **peri nuclear zone**)

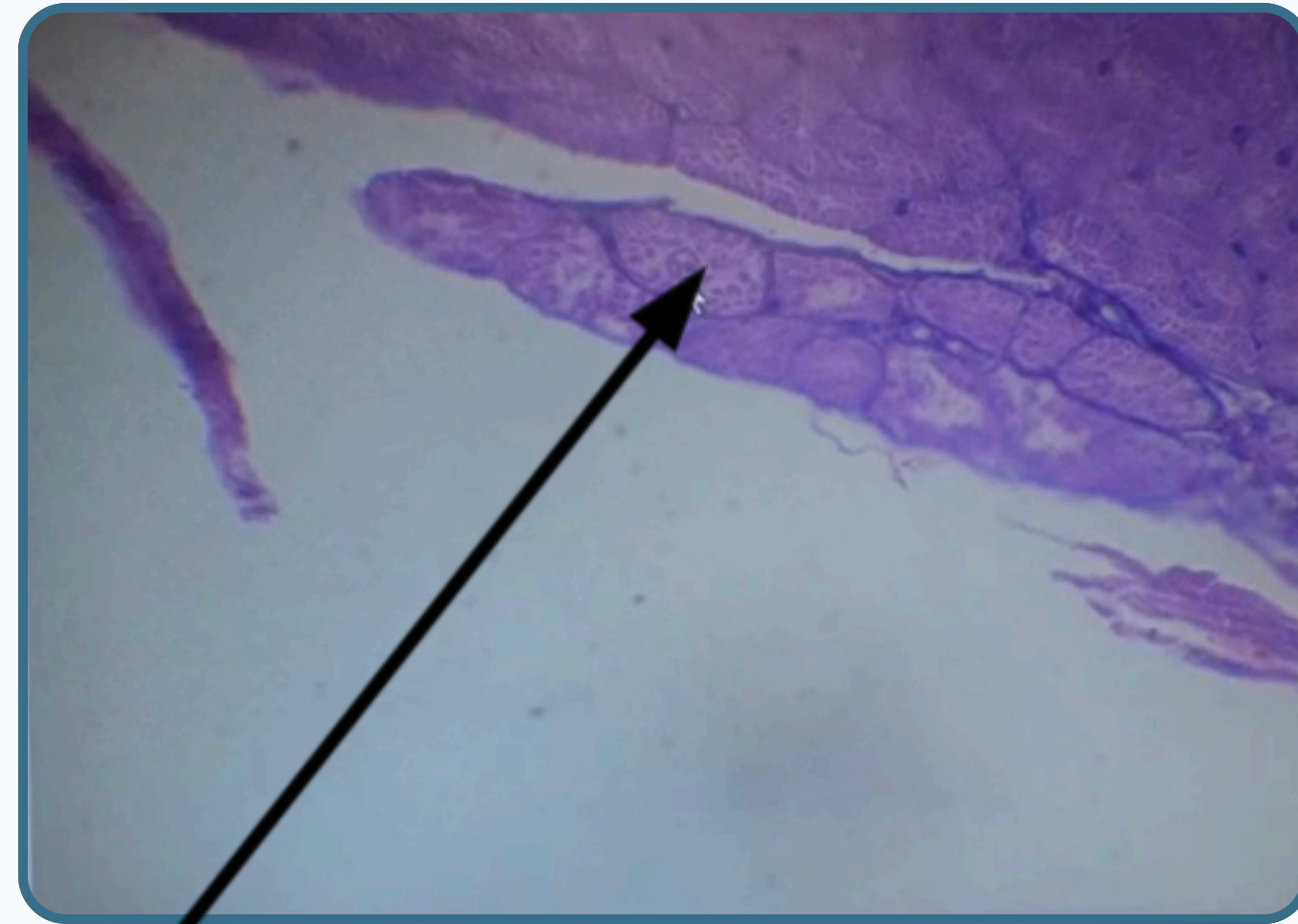
Subendocardial
Layer of loose
connective tissue

Endocardium
Consist of single layer
of endothelial cells

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Endocardium



Purkinje fibres

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