Gross anatomy assignment

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18/mhs02/072
Gross anatomy

1. A person can survive on a single lung quite well – providing that lung is in tip top condition. Lungs are easily damaged, though. Covid-19, the disease at the centre of the current corona virus outbreak is a case in point. since vasculature means blood vessels and that's arteries and veins and in the blood we have both rbc and WBC so in relation to immune system the WBC is for immunity and it would fight again the virus once it gets in contact with the blood vessels

2. The adductor canal (Hunter's canal, subsartorial canal) is a narrow conical tunnel located in the thigh.

It is approximately 15cm long, extending from the apex of the femoral triangle to the adductor hiatus of the adductor magnus. The canal serves as a passageway from structures moving between the anterior thigh and posterior leg.

In this article, we shall look at the anatomy of the adductor canal – its borders, contents and clinical relevance.

Borders

The adductor canal is bordered by muscular structures:

Anteromedial: Sartorius.

Lateral: Vastus medialis.

Posterior: Adductor longus and adductor magnus.

The adductor canal runs from the apex of the femoral triangle to the adductor hiatus – a gap between the adductor and hamstring attachments of the adductor

Cross-section of the thigh, showing the borders of the adductor canal. Note: the adductor magnus is not visible in this illustration.

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The adductor canal serves as a passageway for structures moving between the anterior thigh and posterior leg.

It transmits the femoral artery, femoral vein (posterior to the artery), nerve to the vastus medialis and the saphenous nerve – the largest cutaneous branch of the femoral nerve.

As the femoral artery and vein exit the canal, they are called the popliteal artery and vein respectively.

3)The extraocular muscles are located within the orbit, but are extrinsic and separate from the eyeball itself. They act to control the movements of the eyeball and the superior eyelid.

There are seven extraocular muscles – the levator palpebrae superioris, superior rectus, inferior rectus, medial rectus, lateral rectus, inferior oblique and superior oblique.

The levator palpebrae superioris is innervated by the oculomotor nerve (CN III) The levator palebrae superioris receives motor supply from the superior division of the oculomotor nerve. Its smooth muscle component, the superior tarsal muscle, is supplied by sympathetic fibers that originate in the cervical spinal cord and travel along the carotid artery.

The superior rectus is innervated by the Oculomotor nerve (CN III).

The inferior rectus is innervated by Oculomotor nerve (CN III) The blood supply to the inferior rectus is provided by the ophthalmic artery and the infraorbital branch of the maxillary artery.

The medial rectus is innervated by the Oculomotor nerve (CN III).

The lateral rectus is innervated by the Abducens nerve (CN VI) .It is the only muscle supplied by the abducens nerve, cranial nerve VI. The abducens nerve exits the brainstem from the pons-medullary junction, and travels through the superior orbital fissure to innervate the lateral rectus muscle.

The Superior Oblique is innervated by the Trochlear nerve (CN IV).

The Inferior Oblique is innervated by the Oculomotor nerve (CN III).

*The intraocular muscles include the ciliary muscle, the sphincter pupillae, and the dilator pupillae.

The ciliary muscle is a smooth muscle ring that controls accommodation by altering the shape of the lens, as well as controlling the flow of aqueous humor into Schlemm's canal. The ciliary muscle are supplied by parasympathetic postganglionic myelinated nerve fibers from the ciliary ganglion.

The iris sphincter muscle receives its parasympathetic innervation via the short ciliary nerves which lead to pupillary constriction (miosis) and accommodation. The parasympathetic fibers that serve the sphincter muscle.

The dilator muscle is innervated more specifically by postganglionic sympathetic nerves arising from the superior cervical ganglion as the sympathetic root of ciliary ganglion. From there, they travel via the internal carotid artery through the carotid canal to foramen lacerum.