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1. All viruses are intracellular parasites. Their only mission in life, is to use the mechanisms of human cells to make copies of themselves. The tricky task is finding the way they can replicate. The virus that causes Covid-19 can latch onto the ACE2 receptor ( Angiotensin converting enzyme 2 receptors – a part of the sympathetic system that plays a role in constricting blood vessels, which raise blood pressure) undetected – likely because of its animal origins. The adaptive immune system – the part that creates antibodies that help identify pathogens quickly – hasn’t had a chance to learn what SARS-Cov-2 looks like yet. This means the virus can use a molecular phishing scam to sneak into the cell.

Once it does, the cell is doomed: SARS-CoV-2 takes control of the cell’s genetic reproduction tools, relentlessly replicate itself, and bursts through the cell membrane – the microbial equivalent of blowing up a building and not looking back.

The body isn’t completely defenceless against the novel infection: even without the initial help of the adaptive immune system, the body’s innate immune system kicks in within hours of a novel infection. Cells that are infected send out distress signals that alert others to the viral invader . The innate immune system can start to contain the virus by eliminating infected cells, telling the adaptive immune system to kick into gear, and even creating fevers to try to cook it off. That immune responce may also play a role in the mild nature of most infections.

2. The subsartorial canal, also known as Hunter’s canal or Adductor canal is an aponeurotic tunnel in the middle third of the thigh, extending from the apex of the femoral triangle to the opening in the adductor magnus, the adductor hiatus. It 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.

3. EXTRAOCULAR MUSCLES:

The extraocular muscle are located within the orbit, but are extrinsic and separate from the eyeball itself and they act to control the movements of the eyeball and the superior eyelid.

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

Functionally they can be divided into two groups;

* RESPONSIBLE FOR EYE MOVEMENT – Recti and Oblique muscles
* RESPONSIBLE FOR SUPERIOR EYELID MOVEMENT – Levator palpebrae superioris.

The extraocular muscles are innervated by three cranial nerves (CN), CN III (oculomotor nerve), CN IV(trochlear nerve), and CN IV(abducens nerve).

INTRAOCULAR MUSCLES

The intaocular muscles are muscles of the eyes that are responsible for pupil accommodation and reaction of the eyes to light. The intraocular muscles include ; the ciliary muscle, which is responsible for viewing objects at varying distances and regulates the flow of aqueous humor into the schlemm’s canal, the sphincter pupillae, and the dilator pupillae which are responsible for the control of the pupil size.

The ciliary muscle is innervated by the parasympathetic nerve fibers of oculomotor nerve (CN III).

The sphincter pupillae and The dilator pupillae is supplied by parasympathetic fibers by way of the short ciliary nerves.