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QUESTION 1: Describe the importance of vasculature in relation to immune system and outbreak of Pandemic Covid-19 on the human body

ANSWER: The starin of coronavirus is still new,it's not yet known whether our bodies will build up an immunity to the virus.We do not know enough about the interaction between the current coronavirus and our immune system to definitely say if we would develop a protective immune memory response,and if we do,we don't know if the memory response is long lived.Nor do we know whether the virus will mutate and evade that protective memory.But there are good news as people are recovering from COVID-19 its suggests our bodies are capable of an immune response to the virus.the body's inflammation response is caused by our innate immune system Dr Macciochi adds,but sometimes extra backup is needed from the adaptive immune system.The system offers an immediate,but nonspecific reactions to illness or injury. The adaptive immune system takes longer to respond but is a lot more targeted in its attack.

"The adaptive immune response is specific:it's takes up to five days to prepare an army of cells and antibodies to deal with the infection.Adaptive immunity also involves a memory response that remembers the specific germ and protects us if we are ever exposed to it again".

The immune system is the body's natural defense to illnesses, it's a complex network of cells and proteins working to build up defences when an infection enters our body.

The first line of defence is to prevent infection from entering the body.

The world Health Organization's(WHO) recommended basic protective measures against COVID-19 are frequent handwashing with soap and water, cleaning hands with an alcohol-based rub; maintaining social distancing, avoid touching your eyes, nose and mouth; and covering your nose and mouth with a bent elbow or tissue when you cough or sneeze. These simple actions are vital to slowing the spread of a new disease like coronavirus to which nearly everyone is susceptible, but particularly older people and those with underlying health conditions..

Question 2: Subsartorial canal is an important area in the lower limb, Discuss

ANSWER: The subsartorial canal(the adductor canal) is a narrow conical tunnel located in the thigh. Its is approximately 15cm long and extending from apex of the femoral triangle to the adductor hiatus of the adductor magnus. The canal serves as a passage way from structures moving between anterior thigh and posterior leg.

BORDERS: The adductor canal is bordered by muscular structure

- 1. Anteromedialis: sartorius
- 2. Lateral : vastus medial is
- 3. Posterior: adductor longus and magnus

Its transmits the femoral artery, femoral veins (posterior to the artery) nerves to the vastus medialis and the saphenous nerves - the largest cutaneous branch of femoral nerves. As the femoral artery and veins exit the canal they are called the popliteal artery and veins respectively

QUESTION 3:

Describe the Extraocular and intraocular Muscles with their nerve supply.

ANSWER: The extraocular muscles are located within the orbit, bit are extrinsic and separate from the eyeball itself. They act to control the movements of the eyeball and superior

They're are 7 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:

1.Responsible for eye movement - Recti and oblique muscles.

2. Responsible for superior eyelid movement-elevator palpebrae superioris.

The extraocular muscles are innervated by nerves that enter the orbit through the superior orbital fissure. The oculomotor nerve (CN III) divides into superior and inferior branches and innervates the superior, medial, and inferior oblique.

The intraocular muscles include the ciliary muscle, the sphincter pupillae, and 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 innervations of the intraocular muscles are:

- 1. Inferior Rectus: innervated by oculomotor nerve (CNIII)
- 2. Medial Rectus: innervated by oculomotor nerve (CNIII)
- 3. Lateral Rectus: Abducens nerve (CN VI).