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ASSIGNMENT

Question1.Describe the importance of vasculature in relation to immune system and outbreak of pandemic covid-19 on the human body..

ANSWER:

1.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 it 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 innate immune 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 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; avoiding 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. The subsartorial canal is an important area in the lower limb, discuss.

ANSWER:

2. The subsartorial canal (adductor canal) is a narrow conical tunnel located in the thigh. It is approximately 15 cm long and extends from the apex of the femoral triangle to the adductor hiatus of the adductor magnus. The canal serves as a passage way 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 **POPLITEAL ARTERY** and **VEIN** respectively.

In the adductor canal block, local anaesthetic is

administered in the adductor canal to block the saphenous nerve isolation, or together with the nerve to the vastus medialis. The block can be used to provide sensory anaesthesia for procedures involving the distal thigh and femur, knee and lower leg on the medial side. The sartorius and femoral artery are used as anatomical landmarks to locate the saphenous nerve.

#### 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 magnus muscle.

QUESTION 3. Describe the extraocular and intraocular muscle with the nerve supply.

ANSWER:

3. The extraocular muscles (also extrinsic muscles of eyeball, extra-ocular muscles) are a set of seven muscles located within each orbit and connected with the eye. There are six extraocular muscles responsible for the eye movements and one providing the elevation of the upper eyelid.

The six extraocular muscles controlling eye movements include four rectus muscles superior rectus, inferior rectus, medial rectus, lateral rectus, and two oblique muscles superior and inferior oblique. There is the seventh extraocular muscle that provides the elevation of the upper eyelid and that is levator palpebrae superioris.

The motor innervation of the

extraocular muscles is provided by three cranial nerves:

Oculomotor, trochlear and abducens. The oculomotor nerve supplies five extraocular muscles: three out of the four rectus muscles (superior, inferior, medial), inferior oblique muscles, and levator palpebrae superioris muscles. The trochlear nerve innervates only the superior oblique, while the abducens nerve supplies the lateral rectus muscle.

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 innervations of the intraocular muscles are:  
1-inferior rectus: innervated by oculomotor nerve (CN III)

2-medial rectus:innervated by  
oculomotor nerve(CNIII)

3-lateral rectus:Abducens  
nerve(CN VI).