**OLONIYO SIMILOLUWA GRACE**

**19/mhs02/132**

**Nursing**

**200level**

**Anatomy 210 Assignment**

**Question 2**

**The subsartorial canal is an important area in the lower limb.**

**The adductor canal (subsartorial or Hunter’s 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.**

**The adductor canal isa 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.**

**Boarders**

**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**

**Contents.**

**. The subsartorial canal contains the subsartorial artery (superficial femoral artery), subsartorial vein (superficial femoral vein), and branches of the femoral nerve (specifically, the saphenous nerve, and the nerve to the vastus medialis).**

**Adductor canal. It is a gutter-shaped groove bounded laterally by the vastus medialis and medially by the adductor longus above and the adductor magnus below. Its contents are the femoral artery, the femoral vein, the nerve to vastus medialis and the saphenous nerve.**

**Importance of the subsartorial canal in the lower region.**

**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**

**. 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 these vessels pass through the adductor hiatus, their names change to the popliteal vein and artery, respectively. The saphenous nerve is a branch of the femoral nerve. The saphenous nerve accompanies the femoral artery and vein in the adductor canal, but it does not pass through the adductor hiatus.**

**So therefore the subsartorial canal is very important in the lower region.**

**QUESTION 3**

**DESCRIBE THE EXTRAOCLAR AND INTRAOCULAR MUSCLES AND THEIR NERVE SUPPLY**

**The extraocular muscles are the six muscles that control movement of the eye and one muscle that controls eyelid elevation (levator palpebrae).**

**These muscles are named the superior rectus, inferior rectus, lateral rectus, medial rectus, superior oblique, and inferior oblique.**

**The actions of the six muscles responsible for eye movement depend on the position of the eye at the time of muscle contraction.**

**For reasons we don't fully understand, these muscles can be particularly affected by myasthenia. Usually, our eye movements are synchronised but when these muscles become fatigued, sometimes they don't move in accord with each other leading to double vision. Details of these muscles are shown below:**

**Medial Rectus (MR)**

**This moves the eye inwards, towards the nose (adduction)**

**Lateral Rectus (LR)**

**Moves the eye outwards, away from the nose (abduction)**

**Superior Rectus (SR)**

**Moves the eye Upwards (Elevation)**

**Rotates the top of the eye towards the nose (intorsion)**

**Moves the eye inward (adduction)**

**Inferior Rectus (IR)**

**Moves the eye downwards (depression)**

**Rotates the top of the eye away from the nose (extorsion)**

**Moves the eye inward (adduction)**

**Superior Oblique (SO)**

**Rotates the top of the eye towards the nose (intorsion)**

**Moves the eye downwards (depression)**

**Moves the eye outwards (abduction)**

**Inferior Oblique (IR)**

**Rotates the top of the eye away from the nose (extorsion)**

**Moves the eye upwards (elevation)**

**Moves the eye outwards (abduction)**

**There are also small muscles that control the eyelids, when they become fatigued drooping eyelids (ptosis) can occur.**

**The nerve supply of the extraocular muscles**

**The extraocular muscles include: the medial, inferior, and superior recti, the inferior oblique, and levator palpebrae muscles, all innervated by the oculomotor nerve (III); the superior oblique muscle, innervated by the trochlear nerve (IV); and the lateral rectus muscle, innervated by the abducens nerve (VI).**

**Functions of extraocular muscles.**

**The muscles of the eye are designed to stabilize and move the eyes. All eye muscles have a resting muscle tone that is designed to stabilize eye position. During movements, certain muscles increase their activity while others decrease it.**

**INTRAOCULAR MUSCLES.**

**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.**

**Nerve supply.**

**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 recti, the levator palpebrae superioris, and the inferior oblique.**

**QUESTION 1**

**DESCRIBE THE IMPORTANCE OF VASCULATURE IN RELATION TO THE IMMUNE SYSTEM AND OUTBREAK OF PANDEMIC COVID -19 ON THW HUMAN BODY.**

**Definition of vasculature. : the blood vessels or arrangement of blood vessels in an organ or part.**

**The term "vascular" refers to the body's blood vessels, including arteries, veins, and capillaries. the vascular system of a part of the body and its arrangement.**

**VASCULATURE OF THE BRAIN**

**The brain receives blood from two sources: the internal carotid arteries, which arise at the point in the neck where the common carotid arteries bifurcate, and the vertebral arteries (Figure 1.20). The internal carotid arteries branch to form two major cerebral arteries, the anterior and middle cerebral arteries.**

**VASCULATURE OF THE HEART**

**Coronary circulation. ... Coronary circulation is the circulation of blood in the blood vessels that supply the heart muscle (myocardium). Coronary arteries supply oxygenated blood to the heart muscle, and cardiac veins drain away the blood once it has been deoxygenated.**

**IMPOTANCE OF VASCULATURE.**

**It is the function of vessels to transport nutrients to organs/tissues and to transport wastes away from organs/tissues in the blood. A primary purpose and significant role of the vasculature is its participation in oxygenating the body[1]. ... Loading and unloading of oxygen and nutrients occur mostly in the capillaries.Jan**

**The arteries break down into smaller and smaller branches to bring oxygen and other nutrients to the cells of the body's tissues and organs. ... In addition to circulating blood and lymph throughout the body, the vascular system functions as an important component of other body systems.**

**Inhibits platelet aggregation and the adherence of circulating blood cells to blood vessel walls. As a result it reduces clotting. Decreased monocyte (white blood cell) migration (into smooth muscle cells) which is the beginning of the atherosclerotic process. increases oxygenated blood.**

**IMPORTANCE OF VASCULATURE IN IMUNE SYSTEM**

**The immune cell infiltrate in tumors varies widely in density, composition, and clinical significance. ... Blood vascular and lymphatic endothelial cells have important roles in the trafficking of immune cells, controlling thee.microenvironment, and modulating the immune response.**