

ANSWERS TO ANATOMY MARATHON 1 SLIDE SENT ON 11th JUNE 2017

Number 1

1(a) - iliofemoral ligament, straight head of rectus femoris

(B) - The lateral compartment contains the femoral artery and femoral branch of genitofemoral nerve,

Number 2

(a) Retinaculæ vessels are the major blood supply to the head of the femur. They arise from ascending cervical branches which come from the extracapsular arterial ring (formed anteriorly by lateral femoral circumflex artery and posteriorly by medial circumflex femoral artery). Clinicals include avascular necrosis to the head of femur in case of a fracture of the neck of the femur.

(2b) - Tendon for iliopsoas attaches there at lesser trochanter. Innervation are two; Femoral nerve (L2-L4) innervates iliacus and you may also mention L1-L3 for psoas major innervation.

Number 3

(3a) - Flex hip and extend knee (NOTE most muscles crossing two joints will have opposite actions at the two joints except a few such as Sartorius)

(B) - Tensor fascia lata - innervation is superior Gluteal nerve (L4, L5, S1), Gluteus maximus innervation is inferior Gluteal nerve (L5, S1, S2)

Number 4

(a) Saphenous nerve - Purely sensory. It supplies the knee joint through the Subsartorial plexus, the skin in front of the patella, and the anterior and medial aspects of the leg.

(4B) - Buttress of femur, Q angle

Number 5

(5a) - Profunda femoris artery..supplies the Perforators, has lateral and medial circumflex femoral artery branches which supply the head of femur.

(B) Adductor magnus

Number 6

(a) It can serve as a landmark for pudendal nerve in pudendal anesthesia.(S2, 3,4)

(b) *PINT *Tendon to obturator internus

(C) - Reflected head of rectus femoris

Number 7

(a) posterior cutaneous nerve of the thigh (Note its superficial to Biceps femoris)

(b) Intermuscular septum, saphenous opening

(C) - list anything that can affect the hip abductors (Glut med & minimus).. Eg problem with sup Gluteal nerve, sup Gluteal vessels,arthritis of hip joint, dislocation of hip joint, etc

Number 8

(a)Its blood supply is segmental. Perforators branches from Profunda femoris, inf Gluteal, internal pudendal and medial circumflex femoral =longitudinal anastomosis

(B-)originates from anterior aspect of the middle three sacral pieces and inserts at the tip of greater trochanter

Number 9

(a) - Sural nerve, In the popliteal fossa the nerve gives off branches to gastrocnemius , popliteus ,

soleus and plantaris muscles, an articular branch to the knee joint, and a cutaneous branch that will become the sural nerve . The sural nerve is joined by fibres from the common fibular nerve and runs down the calf to supply the lateral side of the foot.

(b) - posterior displacement due to pull of Gastrocnemius muscle which originates from the supracondylar ridge.

Number 10

(a) peroneus tertius

(b) stability factors :Static - Tenon and mortise Structure of talocrural joint, Deltoid ligament, anterior& posterior talofibular ligaments, distal tibiofibular ligament, calcaneonavicular ligament,

:Dynamic- all tendons of anterior and posterior leg compartment crossing the joint.

Number 11

(a) Tibialis posterior (inversion & plantar flexion)

(b) water shed(its proximal part receives blood supply from the muscles forming it and its distal part receives blood supply form the plantar aponeurosis to which it inserts. Leaving its middle segment without proper blood supply) - Thus slow recovery during Injury

Number 12

(a) - The side of talus is determined by keeping it on the table-top

in such a way that:

1. Its rounded head is directed forward.

2. Its trochlear articular surface (which is convex

anteroposteriorly and concave from side to side) faces

upward.

3. Triangular articular surface on the side of body faces

laterally while the comma-shaped articular surface on

the side of body is directed medially.

Thus this is left talus

(b) -

(c) - subtalar joint , the talocalcaneonavicular, and the calcaneocuboid.

Number 13

(a) Originates from external occipital protuberance, superior nuchal line, ligamentum nuchae and the spinous processes of C7 to T12

(b) Innervation is by Thoracodorsal Nerve and actions are (adduction, medial rotation and extension of arm)

Number 14

(a) C1-C5

(b) Right phrenic nerve innervates the Biliary apparatus and thus pain referral through phrenic nerve to right shoulder due to root value C3,C4,C5

Number 15

(a) A- long thoracic nerve to serratus anterior =winged scapula

B- ulnar nerve=ulnar claw

(b) They have five groups with characteristic pattern. lateral, anterior, posterior drain into central which drains into apical thus spread of infections/ cancer can be traced

Number 16

(a) musculocutaneous and it's terminal distribution is to the lateral part of forearm through the lateral cutaneous nerve of the forearm.

(b) L is median nerve...can be injured through supracondylar humeral fractures and also at the carpal tunnel incase of inflammation of tendons

Number 17

(a) Origin from lateral supracondylar ridge and inserts on distal radius. Action flexion of elbow joint

(b) Excessive use of extensor muscles causing lateral epicondylitis.

Number 18

(a) A Injury to axillary nerve- shoulder drop and paraesthesia to the regiment barge of the arm

B- Radial nerve- unopposed flexion of the hand (wrist drop)

(b) incase of coarctation of the aorta distal to the origin of subclavian artery, blood will be diverted to the subclavian artery thus its branches which contribute to scapula anastomosis opens up markedly thus pulsating along with the heartbeat.

Number 19

(a) Pronator Quadratus

(b) Tendon of biceps brachii

(c) Tinels sign is a tingling sensation when a nerve is irritated. Its used to test for Functionality of nerves.

Number 20

(a) Radialis indices and principes policis

(b) Deep palmar arch - If one were to fully extend the thumb and draw a line from the distal border of the thumb across the palm, this would be the level of the superficial palmar arch (Boeckel's line). The deep palmar arch is about a finger width proximal to this.

Number 21

(a) anterior cruciate, medial collateral ligament, Medial Menisci

Number 22

(a) pivot synovial joint

(b) Thenar muscles for increasing mobility , angle formed by the first metacarpal and first Phalange.