

# MOCK GSSE 2021 - ANATOMY

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T/F

The following are posterior relations of the stomach:

1. Lesser sac
2. Pancreas
3. Transverse colon
4. Upper pole of the right kidney and suprarenal gland
5. Spleen

T/F

Regarding the hyoglossus muscle:

1. It is supplied by the hypoglossal nerve
2. The submandibular duct lies superficial to it
3. The lingual nerve lies deep to it
4. The lingual artery and glossopharyngeal nerve lie superficial to it
5. It arises from the greater horn and body of the hyoid bone and inserts into the side of the tongue, interdigitating with the fibres of styloglossus

T/F

Regarding the renal / urinary system:

1. The upper pole of the left kidney sits at vertebral level T10
2. Renal calculi are most commonly held up / stuck at the pelviureteric junction, ureterovesicle junction and the point at which the ureter crosses the iliac vessels
3. The renal veins lie posterior to the renal arteries
4. The tips of the lumbar transverse processes, the sacroiliac joint and ischial spines are useful bony landmarks to track the course of the ureters on a plain abdominal x-ray
5. The ureters enter the bladder obliquely via a submucosal tunnel which serves to prevent urinary reflux

T/F

Regarding anatomical landmarks:

1. The supracristal plane is found at L4 and marks the bifurcation of the aorta
2. The midinguinal point is a landmark for the femoral artery
3. The angle of Louis is found at the attachment of the 2<sup>nd</sup> costal cartilage to the sternum, and is the landmark for the top of the aortic arch
4. The azygos vein drains into the inferior vena cava at L1
5. The thoracic duct enters the thorax at T12

T/F

Regarding the tongue:

1. All of its muscles are supplied by the hypoglossal nerve
2. The chorda tympani carries taste from the posterior third of the tongue
3. The foramen caecum is located at the apex of the sulcus terminalis on the posterior third of the tongue
4. Lymph drainage from one side may reach nodes in both sides of the neck
5. Taste buds are located in the epithelial crevices surrounding vallate papillae, and are located such that they do not come into contact with food being chewed

T/F

Regarding the cavernous sinus:

1. Cranial nerve III traverses the sinus (i.e. “bathed in blood”)
2. Cranial nerve VI traverses the sinus on the lateral aspect of the internal carotid artery
3. Cranial nerve IV runs in the medial wall of the sinus
4. Cranial nerve VI lies medially to the other cranial nerves in the sinus
5. The trigeminal ganglion lies partial under the posteroinferior wall of the sinus

## MULTIPLE CHOICE

The pancreas receives arterial supply from all of the following except:

- a) The splenic artery via the arteria pancreatica magna
- b) The gastroduodenal artery
- c) The inferior pancreaticoduodenal artery
- d) The superior pancreaticoduodenal artery
- e) The left gastroepiploic artery



T/F

Regarding the cervical plexus:

1. It is formed by loops of the anterior rami of C1-C5
2. The superior root of the ansa cervicalis picks up C1 fibres that have “hitchhiked” along the hypoglossal nerve
3. The inferior root of the ansa cervicalis is formed by the union of branches from C2 and C3 and loops around the lateral aspect of the internal jugular vein
4. The phrenic nerve arises mainly from C4 and runs down vertically over scalenus anterior beneath the prevertebral fascia
5. Gives off the lesser auricular nerve, which supplies the skin over the angle of the mandible and auricle

T/F

Regarding the forearm:

1. The ulnar nerve passes between the two heads of pronator teres to enter the forearm
2. Flexor carpi radialis inserts into the bases of the 1<sup>st</sup> and 2<sup>nd</sup> metacarpal bones (symmetrical with the insertion of the opposing extensors)
3. Palmaris longus arises from the common flexor origin and is absent in about 13% of people
4. Flexor digitorum profundus flexes the distal interphalangeal joints (excluding the thumb)
5. The radial artery gives off the common interosseous artery, which it then divides into anterior and posterior interosseous arteries

T/F

Regarding the inguinal canal:

1. It transmits the round ligament of the uterus in females and the spermatic cord in males
2. It is floored by the inwardly curved edge of the inguinal ligament and lacunar ligament
3. Its roof is formed by the arched lower borders of the internal and external obliques
4. The deep inguinal ring lies at the midinguinal point
5. The inferior epigastric artery crosses the posterior wall at the medial edge of the deep inguinal ring

## MULTIPLE CHOICE

Regarding the accessory nerve (CN XI), all of the following are false except:

- a) It is formed in the middle cranial fossa by the union of cranial and spinal nerve roots
- b) All of the fibres of its spinal root leave the cranial fossa with the vagus
- c) It passes superficial to the styloid process and posterior belly of the diaphragm
- d) It shares a meningeal sleeve with the vagus nerve
- e) It occupies the middle compartment of the jugular foramen, medial to the vagus nerve

T/F

All of the following are posterior relations of the inferior vena cava:

1. Right suprarenal gland
2. Left crus of the diaphragm
3. Right renal artery
4. Sympathetic trunk
5. Lumbar arteries

T/F

Regarding the thoracic inlet / root of the neck:

1. The apex of the pleura extends 4cm above the medial third of the clavicle and neck of the first rib
2. The apex of the pleural attaches to the inner edge of the first rib via the suprapleural membrane
3. The vagus and phrenic nerves both enter the chest by passing between arteries behind and veins in front
4. The costocervical trunk is anterior relation of scalenus anterior
5. The brachial plexus is a posterior relation of scalenus anterior

## MULTIPLE CHOICE

All of the following occur at the mid-humeral point except:

- a) Insertion of the deltoid
- b) Insertion of coracobrachialis
- c) The median nerve crosses from medial to lateral in front of the brachial artery
- d) Ulnar nerve pierces the medial intermuscular septum
- e) Cephalic vein enters the deltopectoral groove

## MULTIPLE CHOICE

The contents of the femoral triangle include all of the following except:

- a) Lateral cutaneous nerve of the thigh
- b) Femoral nerve
- c) Femoral artery
- d) Superficial inguinal lymph nodes
- e) Nerve to vastus medialis



T/F

Regarding the anatomy of the upper limb:

1. The quadrangular space is bordered by teres minor, teres major, the long head of triceps brachii and the humerus
2. The triangular space transmits the axillary nerve and posterior circumflex humeral artery
3. The suprascapular nerve and artery pass deep to the transverse scapular ligament
4. The scapular anastomosis connects the first part of the subclavian artery with the third part of the axillary artery
5. The subscapular artery branches off the second part of the axillary artery, lateral to pectoralis minor

## MULTIPLE CHOICE

All of the following statements are true regarding the azygos vein except:

1. It receives the right superior intercostal vein
2. It receives blood from the hemiazygos vein
3. It represents the persistent right posterior cardinal vein in the embryo
4. It runs posterior to the posterior intercostal arteries
5. It is formed by the union of the right subcostal and ascending lumbar veins

## MULTIPLE CHOICE

All of the following statements regarding the brachial plexus are true except:

- a) It derives from five spinal nerves' ventral rami
- b) The trunks are located in the anterior triangle
- c) The radial nerve contains fibres from all five roots
- d) The dorsal scapular nerve contains C5 fibres only
- e) It lies deep to the prevertebral fascia

T/F

Regarding the intrinsic muscles of the hand:

1. The lumbricals are unipennate muscles
2. The lumbricals arise from the medial aspect of their respective metacarpal bones
3. The dorsal interosseous muscles act to abduct the fingers from the mid-axial line (middle finger)
4. The medial two lumbricals usually receive their motor innervation from the median nerve
5. Each lumbrical receives the same motor nerve innervation as the fibres of flexor digitorum profundus that act on the same digit

T/F

Regarding the knee joint:

- a) It is capable of flexion and extension only
- b) The capsule of the joint communicates with the suprapatellar bursa
- c) It is the only modified hinge joint in the body
- d) The lateral collateral ligament is continuous with the lateral meniscus
- e) The anterior cruciate ligament lies within the synovial membrane

T/F

Regarding the maxillary nerve:

1. Its pharyngeal branch supplies the oropharynx
2. It has three cutaneous branches
3. It passes through the foramen ovale, pterygopalatine fossa, and enters the inferior orbital fissure
4. It gives a meningeal branch to the middle cranial fossa
5. It changes its name to the infraorbital nerve when it travels into the orbit

T/F

Regarding the heart:

1. The sinoatrial node lies in the junction of the superior vena cava and right auricle
2. The foetal foramen ovale closes shortly after birth due to the increased pressure in the right atrium
3. Its base is formed mainly by the right ventricle
4. The right atrium is derived from the sinus venosus
5. The left atrium makes a slight impression on the oesophagus

T/F

Regarding the cubital fossa:

1. It is bordered by the medial border of brachioradialis, lateral border of pronator teres and a line between the humeral epicondyles
2. From lateral to medial, its contents include the tendon of biceps brachii, median nerve and brachial artery
3. It is roofed by the deep fascia of the arm, with reinforcement from the bicipital aponeurosis
4. Its floor is comprised of brachialis and supinator
5. The lateral cutaneous nerve of the forearm runs through its lateral aspect



## MULTIPLE CHOICE

All of the following statements regarding the Angle of Louis are correct except:

- a) It marks the beginning and ending of the aortic arch
- b) It represents the plane through the sternal angle and T4/5 vertebral levels
- c) It marks the separation between superior and middle mediastinum
- d) It marks the level of the bifurcation of the trachea
- e) It marks the level of the confluence of the brachiocephalic veins to form the superior vena cava

T/F

Regarding the adductor canal:

1. It is roofed by sartorius
2. Its floor is comprised of pectineus and adductor longus
3. It contains the long saphenous vein
4. It contains the subsartorial plexus, which is comprised of the lateral cutaneous nerve of the thigh, saphenous nerve and anterior division of the obturator nerve
5. The saphenous nerve leaves the adductor canal via the adductor hiatus

## MULTIPLE CHOICE

All of the following statements regarding the coeliac plexus are true except:

- a) It is comprised of sympathetic and parasympathetic nerves
- b) It connects the right and left coeliac ganglia
- c) It feeds sympathetic fibres onto the coeliac trunk and its branches
- d) It is located at L1 above the origin of the coeliac trunk
- e) Sympathetic fibres include motor, vasomotor and sensory

T/F

Muscles that medially rotate the hip joint include:

1. Gluteus minimus
2. Gluteus medius
3. Gluteus maximus
4. Obterator externus
5. Iliopsoas

## MULTIPLE CHOICE

All of the following statements regarding the structures of the mediastinum are true except:

- a) The central tendon of the diaphragm shares its embryological origin with the fibrous pericardium
- b) The great vessels are found in the superior mediastinum
- c) Contents of the inferior mediastinum include the heart, oesophagus, aorta and thymus
- d) The vagus nerves pass in front of the hila of the lungs
- e) The pretracheal fascia extends into the superior mediastinum and blends with the fibrous pericardium

T/F

Regarding the ankle:

- a) It is most stable in extension
- b) Inversion and eversion of the foot occur mainly at the ankle
- c) It is a synovial hinge joint, with its capsule attaching to the tibia, fibula and talus
- d) Is stabilised laterally by the deltoid ligament
- e) The talus articulates with the tibia and calcaneus

T/F

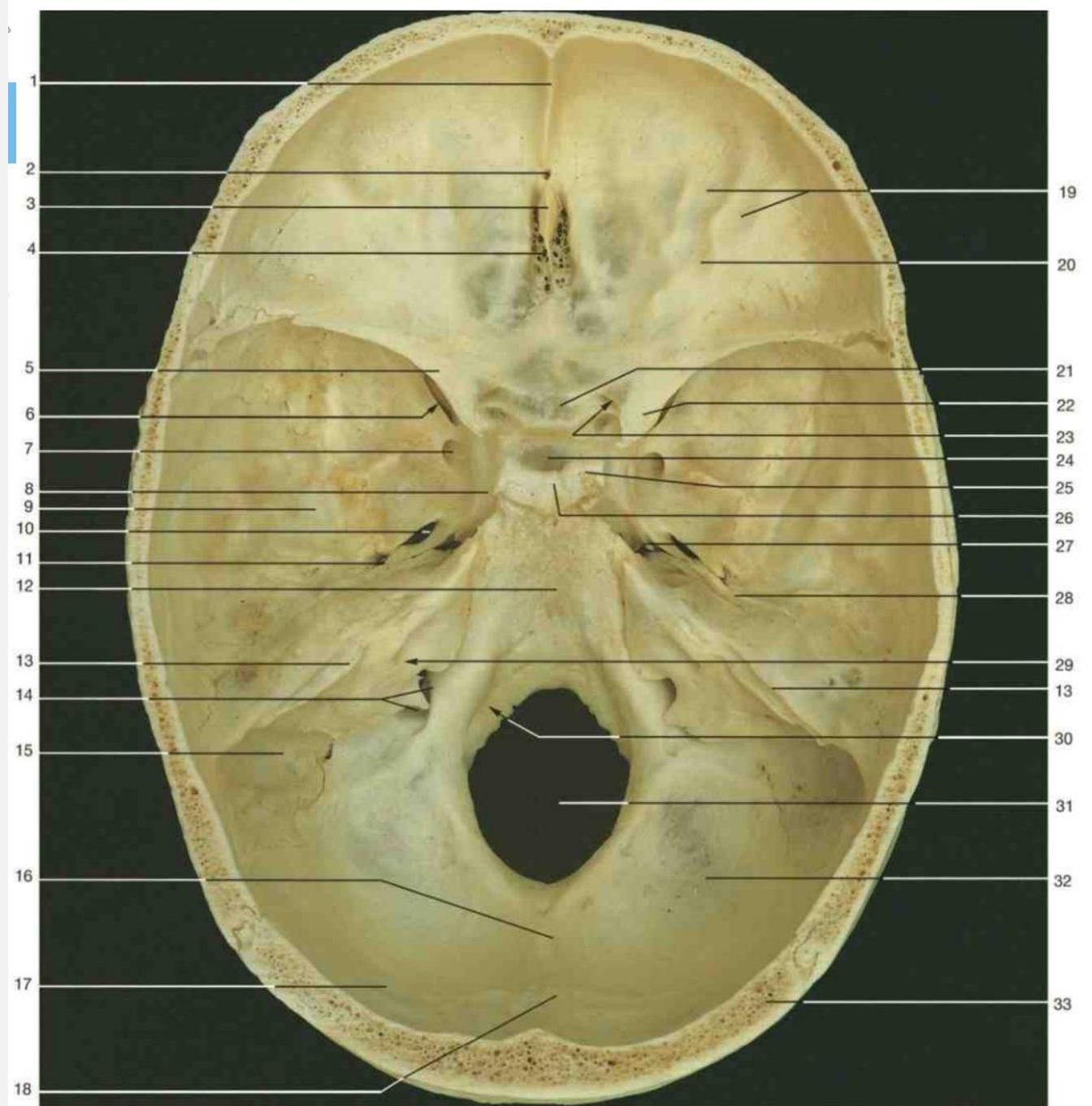
Regarding the popliteal fossa:

1. Its superomedial border is the lateral edge of semimembranosus
2. The inferior borders are the two heads of gastrocnemius
3. The popliteal artery is the most superficial structure passing through it
4. The popliteal vein leaves it by passing through the adductor hiatus
5. Its floor includes the posterior aspect of the femur

SPOTS

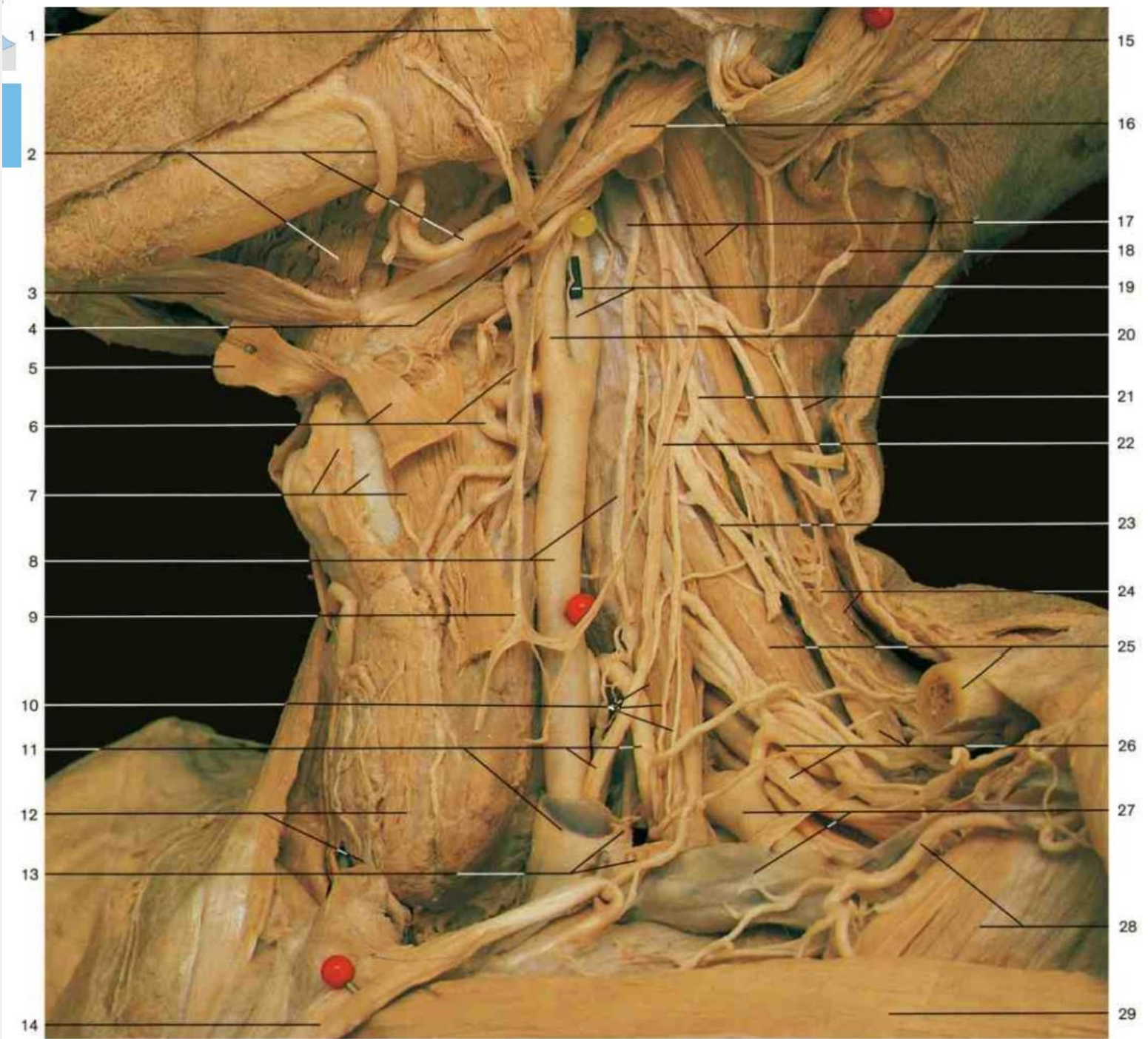


1. Name three structures that pass through 6 (bonus points if you can name more)
2. What structure passes through 30?
3. Name structure 3
4. What structure sits in 24?
5. Name three structures that pass through 14 (bonus points if you can name more)

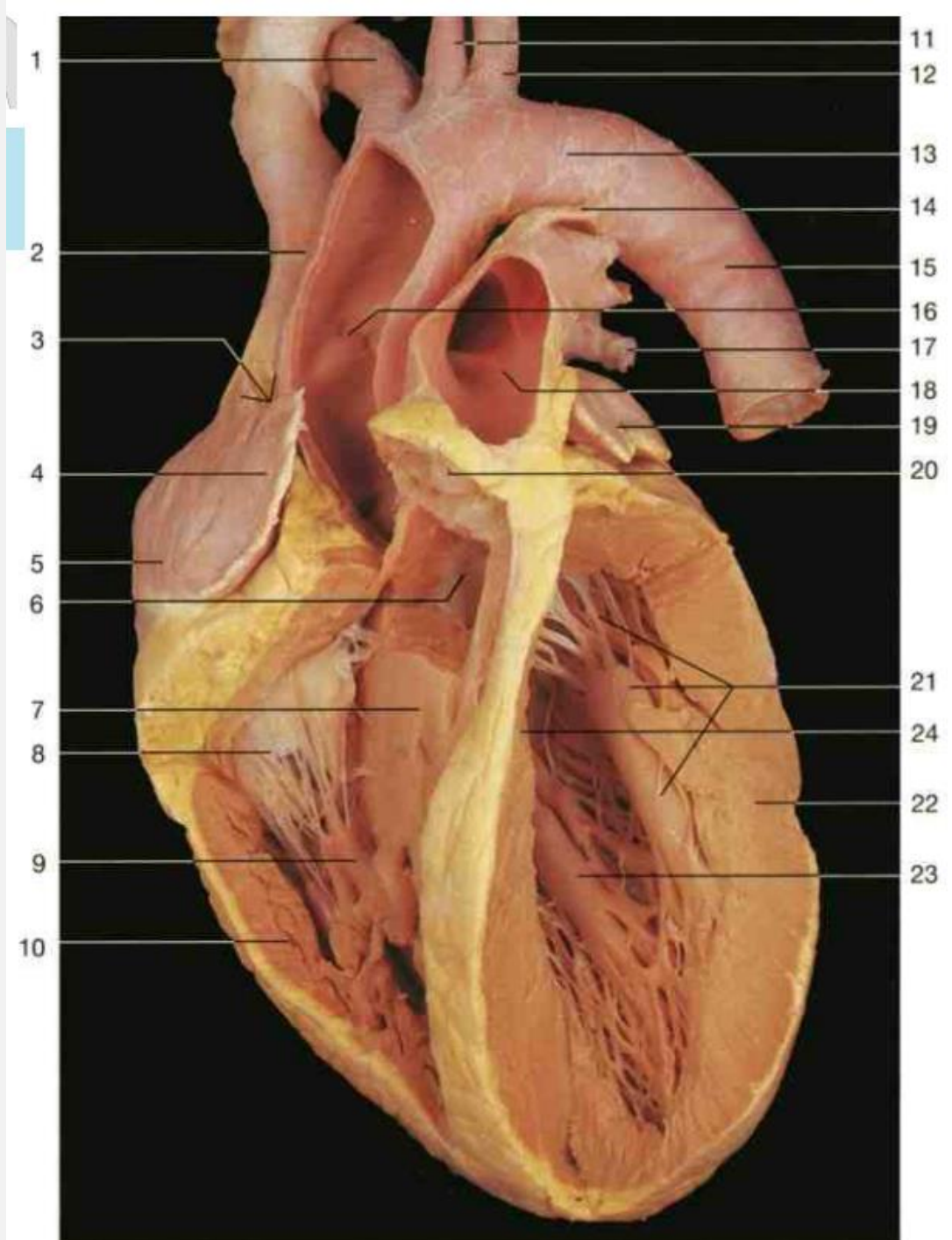


Base of the skull, calvaria removed (internal aspect).

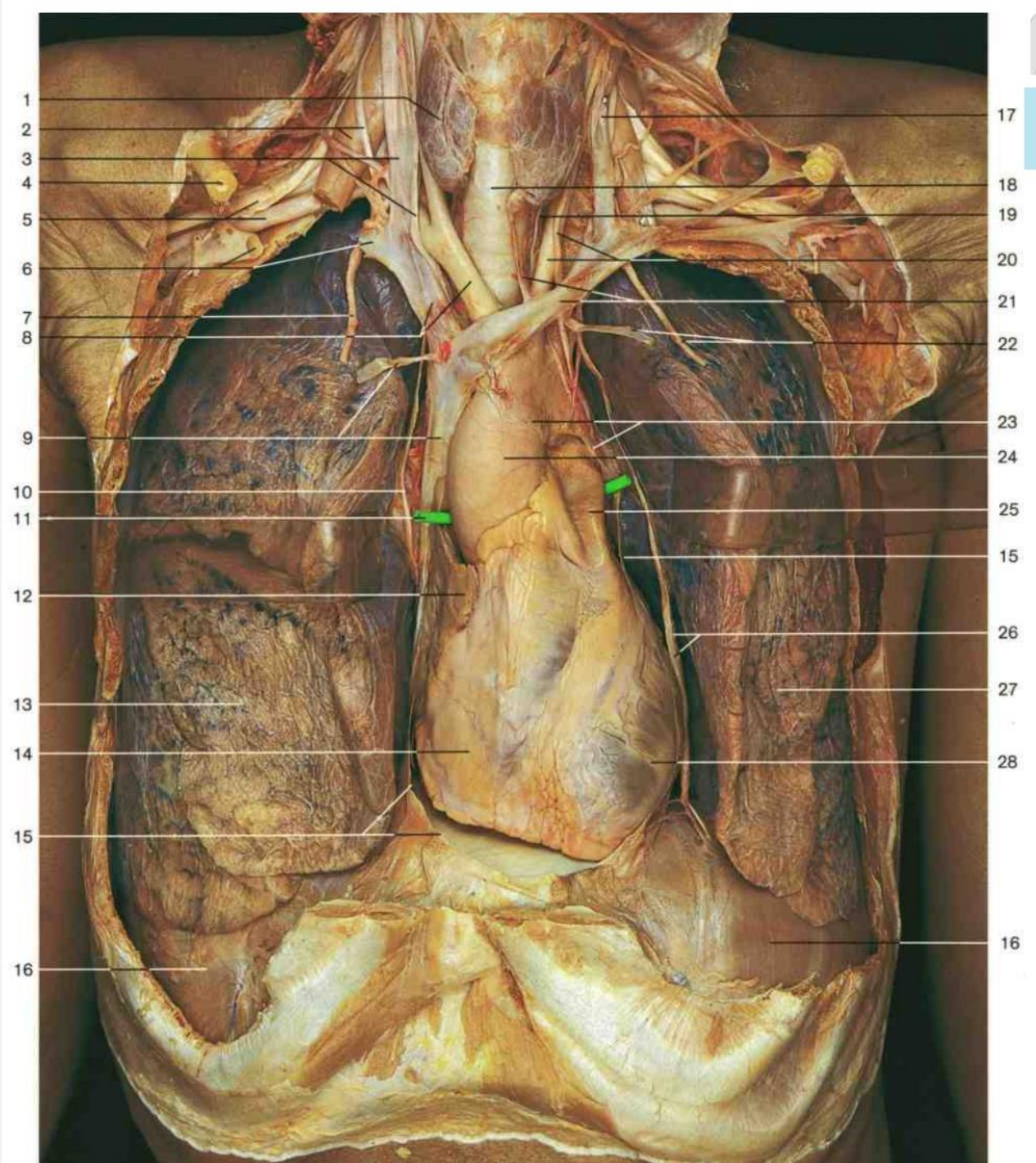
1. What is the innervation of 16?
2. Name structure 22
3. Name the origin of 2 (ignore the muscle)
4. What is the first branch of 19 (ignore the nerve)? How many branches does it give off in the neck?



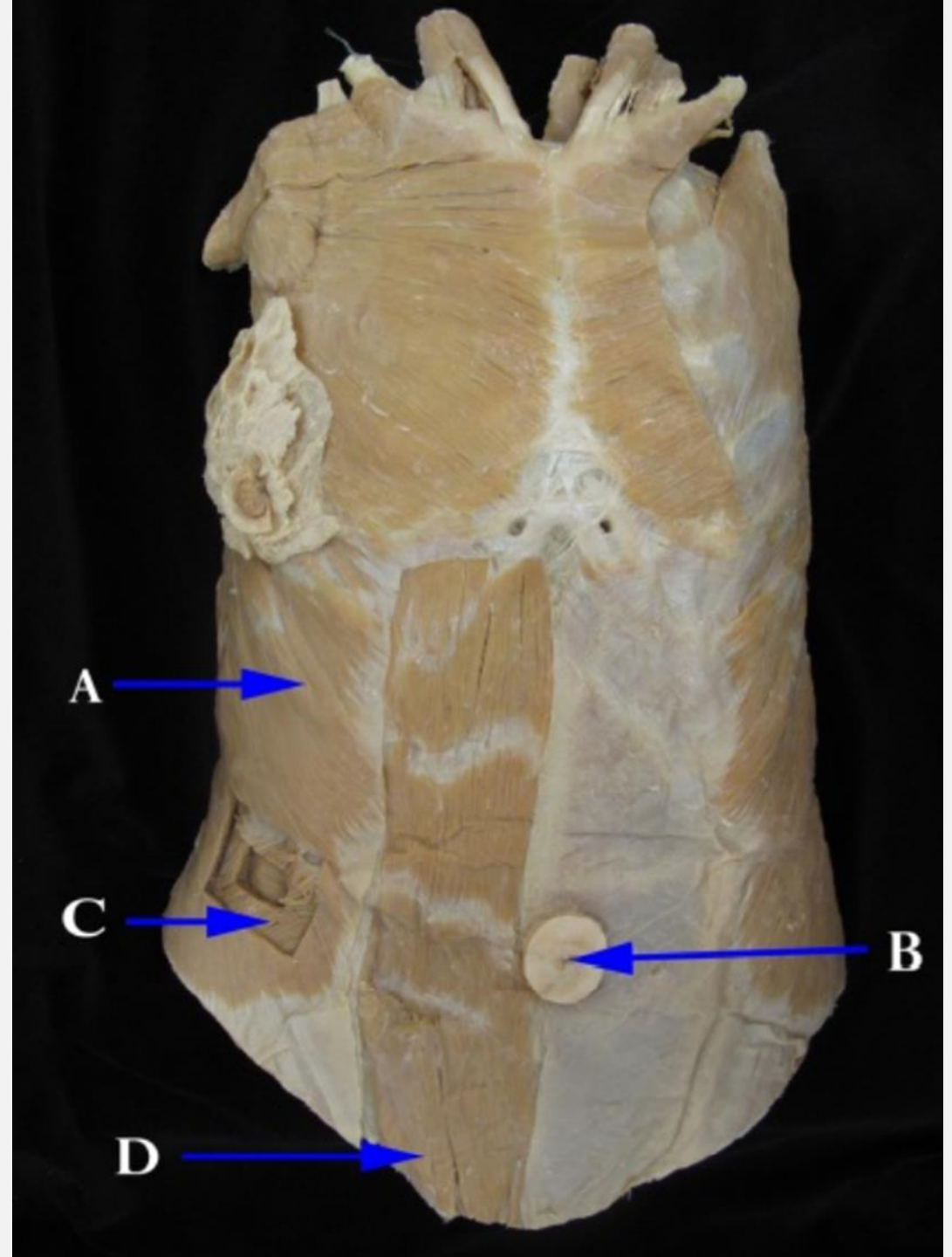
1. Name the two structures indicated by 21
2. Name structure 11
3. Name 3 and the structure that lies within it
4. What is the vertebral level of structure 14?



1. Name the sinus demonstrated by the probe at 11
2. Name 25
3. State the spinal nerve root contributions of 10
4. Name the structures indicated by 20



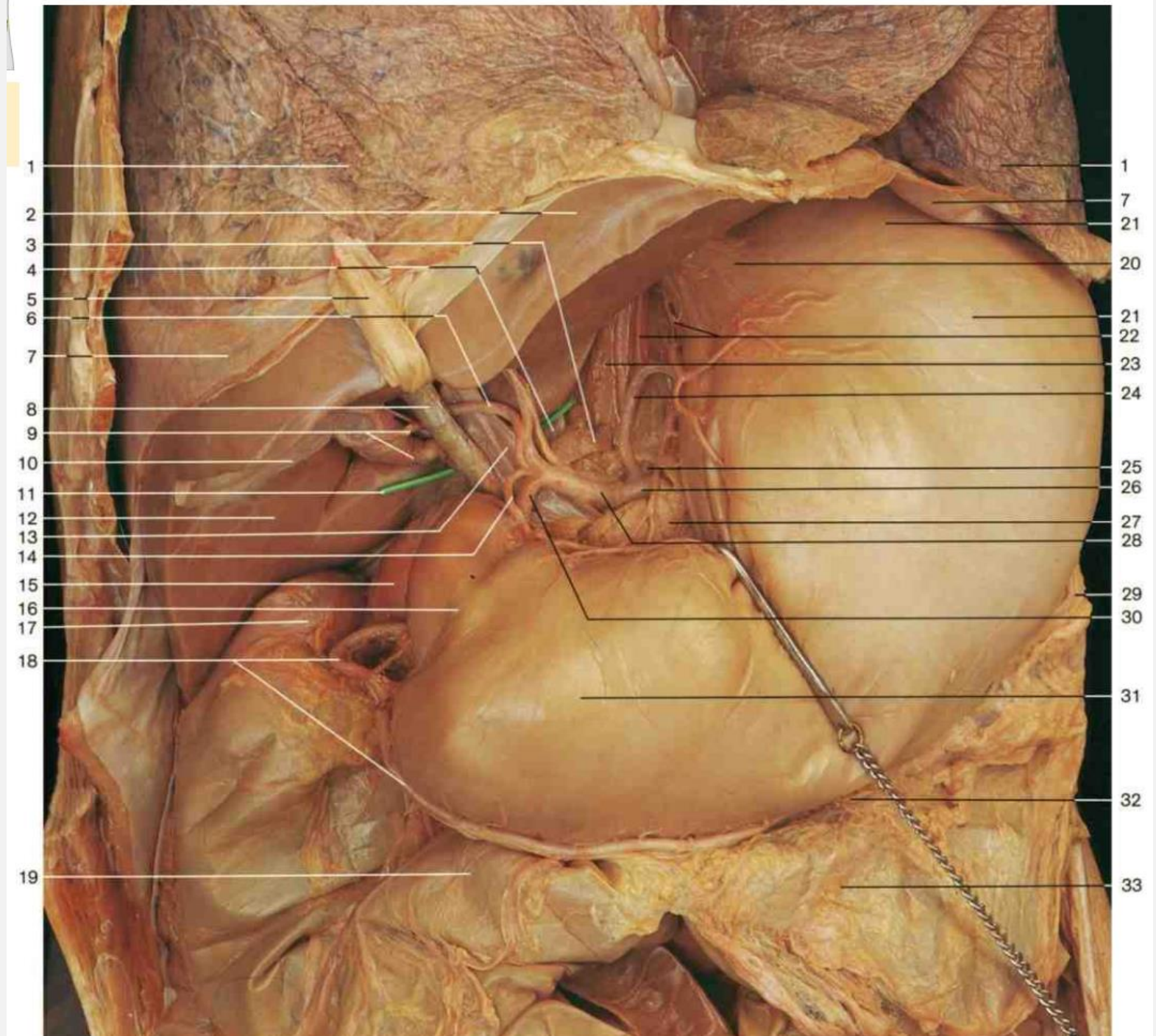
1. Identify A
2. What dermatome supplies structure B?
3. What is attachment of C to the inguinal ligament?
4. What is the nerve supply (SP!) of muscle D just above the pubis?



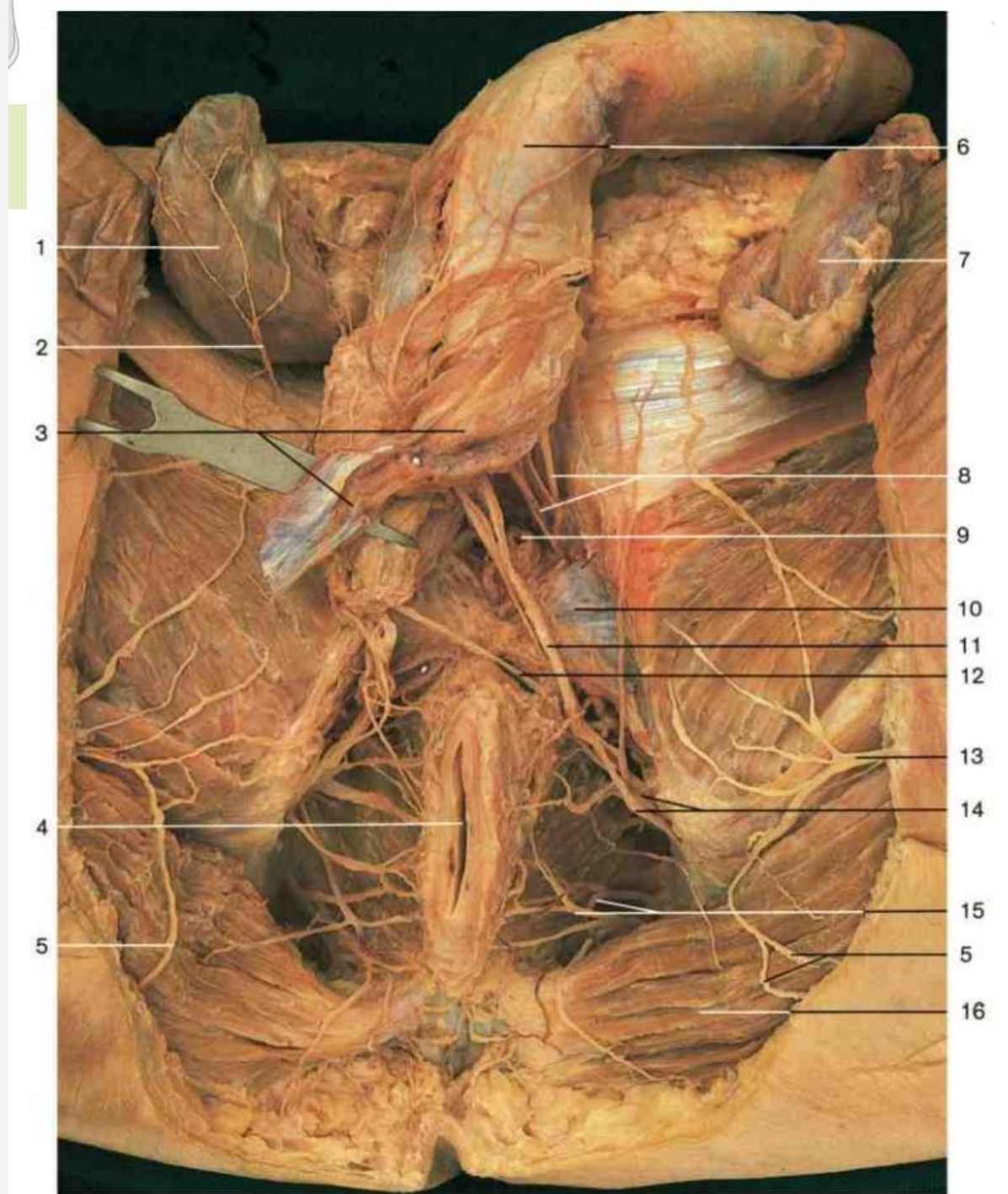
- Name the structure the arrow is pointing to; what is its function?
- Name the origin of the artery that supplies 39
- Name 35 (precisely) and the vertebral level
- Name 25
- The origin of 7 lies at what vertebral level?



1. The foramen demonstrated by the probe at II is a communication between [ ] and [ ]?
2. Name structure 5 and state its embryological origin
3. Name structure 4
4. What structure does 22 supply?

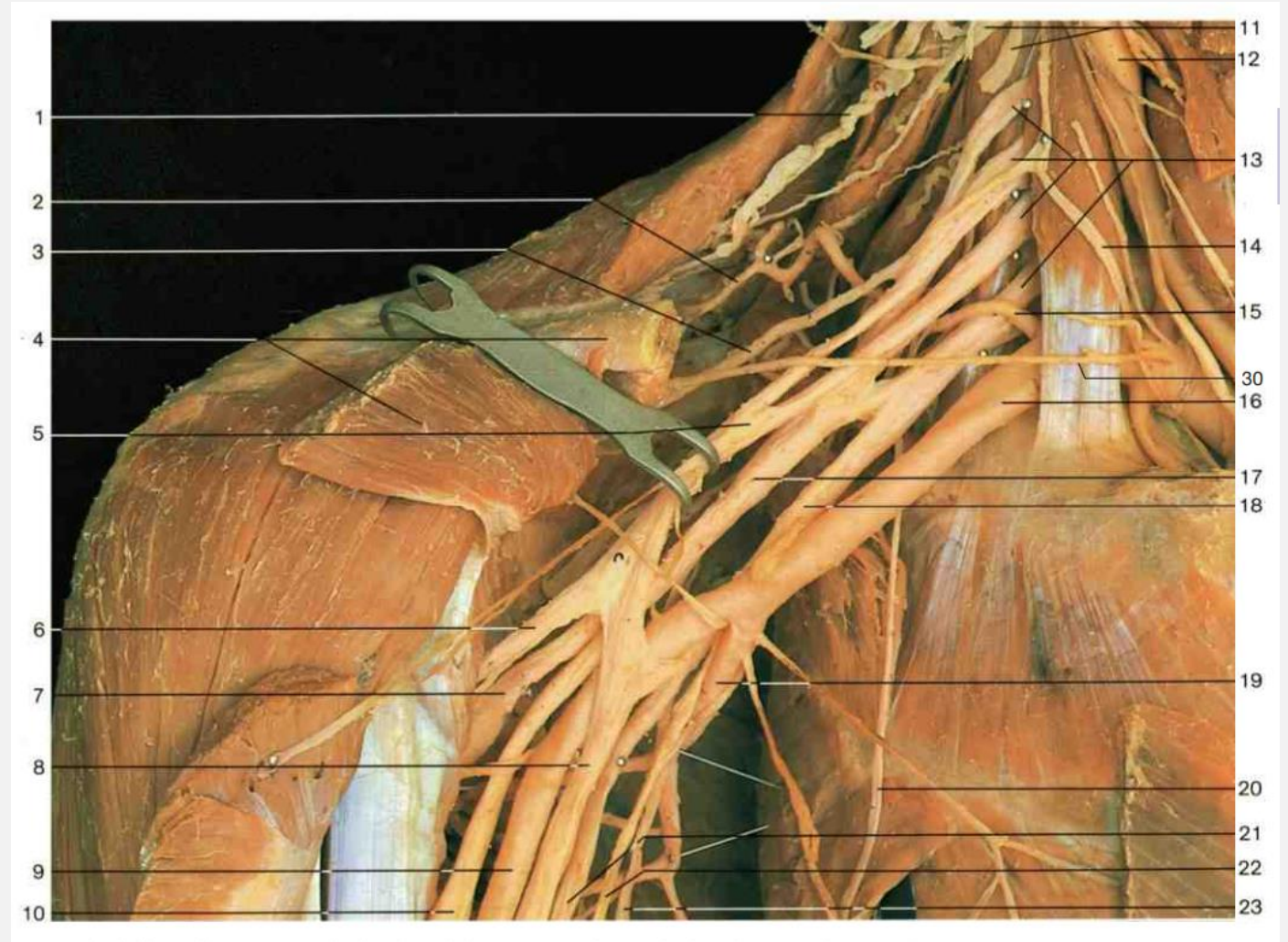


1. Name the structures at 15
2. What are the movements facilitated by 16?
3. Name structure 3
4. Structure 5 is a branch of the [ ]?





1. Name structure 19
2. Name structure 2, which is a branch of the [ ]?
3. Name the muscles in the hand supplied by 8
4. 6 changes its name to [ ] in the forearm and supplies [ ]?



**END**

Good luck for your exams!