

NAME Asghar Ali

ID 15020

Teacher Waqas Asir

Subject Anatomy

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Q.1

Ans :- Structure of eye :- ~~inner eye~~

The eyeball can be divided into fibrous, vascular and inner layer. These layer have different structure and function are following-

⇒ Fibrous layer

The Fibrous layer of the eye is outermost layer. It consist of the sclera and cornea. which are continuous with each other

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Sclera :- Comprises the majority of the Fibrous layer. It provide attachment to the extracular muscle. It is visible as the white part of eye.

Cornea :- Cornea is transparent and positioned centrally at the front of eye. Light entering eye is Refered by the Cornea.

Vascular layer
The Vascular layer of the lies underneath

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The fibrous layer - It is consist of choroid, ciliary body and iris.

Ciliary body :-

Comprised of two parts the ciliary muscle consist of collection of smooth muscle fibres. ciliary body control the lens of eye.

Choroid :-

layer of connective tissue and blood vessels. It provides nourishment of outer layer of retina.

Iris :-

circular structure, It is situated between

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the lens of the cornea.

Inner layer :-

The inner layer of the eye is formed by the retina, is a light detecting compartment

Pigmented layer :-

formed by a single layer of cells. It is attached to the choroid. It is continuous around the inner surface of eye.

Optic part of retina can be viewed during ophthalmoscopy.

The area of the optic nerve enter the retina is called optic disc. It contain no light detecting cells.

structure in the Eyeball

within the Eyeball there are structure that are not located in the three layer. The shape of the lens altered by ciliary body.

Anterior posterior chamber :-

There are two fluid filled area in the eye.

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known as the Anterior and posterior chamber. The chambers are filled with aqueous humor.

The drainage of aqueous humor is obstructed condition known as glaucoma can result

(B) Name of foramen
found in the
base of skull

- 1) Foramen caecum
- 2) optic canal
- 3) superior orbital fissure
- 4) Foramen rotundum

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- ① Foramen ovale
- 2) Foramen spinosum
- 3) Foramen lacerum
- 4) Carotid canal
- 5) Foramen magnum
- 6) Hypoglossal canal
- 7) Jugular foramen
- 8) Internal acoustic meatus.

Q2

Ans Name of Medical fascial compartment

- ① Gracilis
- 2) Adductor brevis
- 3) Obturator externus
- 4) Adductor magnus
- 5) Adductor longus

⑧

Gracilis Origin insertion

Gracilis is a thin flat long muscle that attaches to the coxal bone and tibia. three sites location on the ischium and pubis. It join the p^{as} anserinus which represent cojoined tendon comprising the tendon of three different muscle gracilis. medical surface of proximal tibia inferior to the condyle.

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2) Adductor magnus origin
and insertion

The adductor magnus muscle is massive triangular muscle that extends over the entire medial side of the thigh. It consists of two parts

(1) Adductor part

2) hamstring part.

Adductor part can be divided into two portions

① superior portion

2) inferior portion

The superior portion of the adductor passes obliquely

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most of horizontal fibers
adductor minimus are
some called adductor
magnus inferior
portion of adductor
part fibers that
originate from the
ischial ramus. The most
medial part of
Adductor magnus is
hamstring part.

3) Adductor breviss -

Adductor
breviss is a flat
triangular muscle that
is found inner
thigh. This muscle run
from the Pubis to the

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Medial aspect of the femur

Origin

Anterior body of pubis inferior pubic ramus

Insertion

linea aspera of

obturator femur

Adductor externus origin Insertion
obturator externus

musculus is triangular muscle which mean has much broader attachment area at its apex.

obturator membrane specifically the ^{anteromedial} portion. pubic and ischial rami

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The fibers of the muscle converge into a single tendon. It then proceeds superolaterally on the posterior aspect of the femoral head and inserts into the trochanteric fossa of the femur.

Adductor longus origin
insertion

Adductor longus arises from the body of Pubis inferior to pubis crest lateral to pubis symphysis.

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Origin :- pubic body
Just below the
pubic crest

Insertion
Middle third
of linea aspera.

Q.4
Ans

Sutures of skull

suture
are a type of fibrous
joint that are unique
to the skull. They
are immovable and
fuse completely around
the age of 20.
Sutures are of clinical

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Importance as they
can be points of
potential weakness
in both childhood
and adulthood.

Sutures adulthood are

(1) Coronal suture

which
fuses the frontal bone
with the two parietal
bone

2) Sagittal suture :-

which fuses
both parietal bone of
each other

3) Lambdoid suture

bone to the occipital
parietal bone two

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features of skull in neonates

the incompletely fused suture joint give rise to membranous gap between the bones. known

as fontanelles. two major fontanelles are the frontal fontanelles and occipital fontanelles. Junction of the Sagittal and lambdoid suture -

15) Trigeminal Nerves

- 1) ophthalmic nerve
- 2) maxillary nerve
- 3) mandibular nerve

trigeminal nerves is a nerve responsible for sensation in the face and motor function such as biting and chewing. It is the most complex of the cranial nerves.

(They are greek word: trigeminal = tri or three
a geminus or twin
thrice twined)

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Branches

They are
three major branches
of trigeminal
nerve

- 1) ophthalmic nerve
- 2) maxillary nerve
- 3) Mandibular nerve

The ophthalmic and
maxillary are purely
sensory but
the mandibular supplies
motor as well
as sensory

The trigeminal nerve
is to provide tactile
proprioceptive and
nociceptive afference

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to the face mouth
the motor function
activates the muscle
of mastication.

The Anterior belly
of the digastic.

The trigeminal
nerve also carries
special visceral efferent
axon.

V₁/V₂ distribution Referring
to the ophthalmic
and maxillary branches

V₂/V₃ Referring to
maxillary and mandibular
branches

V₃/V₁ Referring the ophthalmic
and mandibular-maxillary

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Ans

Spinal cord :-
=> The

Spinal cord is tubular
bundle of nervous tissue
and supporting cell.
It extends from the
brainstem to the
lumbar vertebrae

=> together the spinal
cord and the
brain form the
central nervous
system.

Anatomical position and structure

=> Spinal cord is a

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cylindrical structure
greyish white in
colour. It has a
relatively simple
anatomical course.

⇒ The spinal cord arises
cranially as a
continuation of the
Medulla oblongata.

⇒ It then travels the
inferiorly within the
vertebral canal

surrounded by spin
meninge containing
cerebrospinal fluid.

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At the L₂ vertebral level the spinal cord tapers off forming the conus medullaris.

⇒ As a result of termination of the spinal cord at L₂ it occupies around two thirds of the vertebral canal.

⇒ The spinal ~~cord~~ nerves ~~are~~ the arise from the end of the spinal cord together structure is known as cauda equina

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=> Between T₁₁ and S₁
is the Lumbar enlargement
representing the origin
of the lumbar
and sacral plexi.
The spinal cord
is marked by two
depression on its
surface.

on the posterior aspect
there is a slightly
shallower depression
the posterior
median sulcus.

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Pharynx

The pharynx is commonly also called the throat.

It is a passage way

The extends from the base of skull to level of the sixth cervical vertebra

It serves both respiratory and digestive system by receiving from the nasal cavity air, food and water from the oral cavity.

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Type of Pharynx

The human pharynx can be divided into three sections

- 1) nasopharynx
- 2) laryngo pharynx
- 3) ~~oro~~ oropharynx

Structure of pharynx

The human pharynx cone shaped passageway leading from oral and nasal cavities to the esophagus and larynx. The pharynx

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chamber serves both
respiratory and
digestive function. Thick
fibres of muscle
and connective
tissue attach the
pharynx to the
base of the skull
and surrounding
structures.

Pharynx muscle

The
muscle of pharynx
a group muscle The
pharynx muscle pushing
The food into
esophagus.

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Q3 Facial Nerve

Ans: Definition

The motor portion or the facial nerve proper, supplies all the facial musculature. The principle muscles are the frontalis, orbicularis oculi, buccinator, orbicularis oris, platysma, the posterior belly of digastric and stapedius muscle. In nuclear or infranuclear lesions they are partial

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to complete facial
paralysis with
smoothing of the
blow open
eye, flat nasolabial
fold, and drooping
of the mouth
ipsilateral to the
lesion. The nasolabial
fold and drooping
of the mouth contralateral
to the lesion.

The sensory portion
intermediate nerve
as the following
1) taste the anterior
two thirds of the tongue.

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2) Secretory and vasomotor fibers to the lacrimal gland, the mucous membrane of the nose and mouth and the submandibular and sublingual salivary gland.

3) Cutaneous sensory impulses from the external auditory meatus and ~~base~~ region back of the ear.

Abnormalities of taste include Ageusia

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hypogeusia, dysgeusia
obnoxious, or
perverted taste)

Taste :-

The four
primary tastes are
bitter sweet sour
and salty - screen
for disorders of
sweet and salty test
with salt and sugar
with the patient eyes
closed and tongue
blade and smear
a small amount of
salt or sugar on the
lateral surface and

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and the side of the
tongue Rinse th
mouth throughly and
Repeat the test
on the other side
using a different
substance.

glossopharyngeal nerve
and the nodosal
ganglion also ending
in the gustatory
nucleus. They are
two ascending pathway
from gustatory nucleus.
Thalamus and then
to the gustatory
center of the cortex
which probably area

Q3
Ans External laryngeal nerve

The External laryngeal nerve is mixed nerve and the smaller of two. It descends with the

① Superior thyroid artery to supply the cricothyroid muscle, the inferior constrictor muscle and the neighboring external laryngeal nerve is motor by cricothyroid.

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Effect of injury External
laryngeal nerve

External laryngeal nerve may occur during thyroidectomy because of its close proximity to the upper pole of the thyroid gland. ESLN injury during thyroidectomy

The External laryngeal nerve injury include inferior displacement of the affected cord leading to oblique.

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43 in the parietal operculum.

The receptors are taste buds. Up to 8 are on each of the fungiform papillae on the anterior two thirds of the tongue travel via the lingual nerve to the chorda tympani and then as described above to the gustatory ^{tr}nucleus.

which is probably area 43 in the parietal operculum.

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It will result in paralysis
of the cricothyroid
muscle and anesthesia
of the region above
the level of vocal
folds. It tends
to be however, the
external laryngeal
branch that is
affected.

The
End