Midterm exam - ECE

Sem 4 - 2024/2025 - Doctor Ali's "Notes" اصحا للكلام

Topics for MCQs

1- All the extra-ocular muscles are supplied by occulomotor nerve except:
A/ Superior oblique (trochlear)
A/ Lateral rectus (Abducens)

2 - Autonomic branch of facial nerve supplies
A/ Lacrimal and salivary glands

3 - Knee reflex supplied by:
A/ L3 & L4

4 - Biceps reflex supplied by
A/ C5 & C6

5(1) - Rigidity is an
A/ extra pyramidal lesion sign

5(2) - Spasticity is a
A/ pyramidal lesion sign

(both 5(1) & 5(2) are hypertonic)

6 - Difference between signs of UMNL and LMNL
A/ (get answers from Lec 9 in physiology)

UMNL: contralateral paralysis/ contralateral paresis/ Spacity/
Exaggerated tendon jerk reflex & clonus/ + Babinsky sign/
no or minimal muscle atrophy/ normal response to electrical stimuli

LMNL: (structural changes): Atrophy of denervated muscles/ Degeneration of the motor neuron
(Functional changes): Flaccid paralysis/ Denervation super sensitivity/ Fasciculation & Fibrillation/ Degeneration reaction

Cranial nerves

Number	Name of nerve	Function of nerve
A- nerves attached to cerebrum		
I	Olfactory nerve	for smell sensation.
II	Optic nerve	for vision.
B- nerves attached to midbrain		
III	Occulomotor nerve	for moving the eye ball
IV	Trochlear nerve	for moving the eye ball.
C- nerves attached to pons		
V	Trigeminal nerve	sensory to face.
VI	Abducent nerve	for moving the eye ball.
VII	Facial nerve	for moving the facial muscles.
VIII	Auditory nerve	for hearing.
D- nerves attached to medulla oblongata		
IX	Glossopharyngeal nerve	for taste sensation from tongue and pharynx and secretory to salivary glands.
X	Vagus nerve	sensory and motor to muscles of thoracic and abdominal viscera.
XI	Accessory nerve	for moving the muscles of back of the neck
XII	Hypoglassal nerve	for moving the tongue

Q1/ All the extraocular muscles are supplied by oculomotor nerve except:

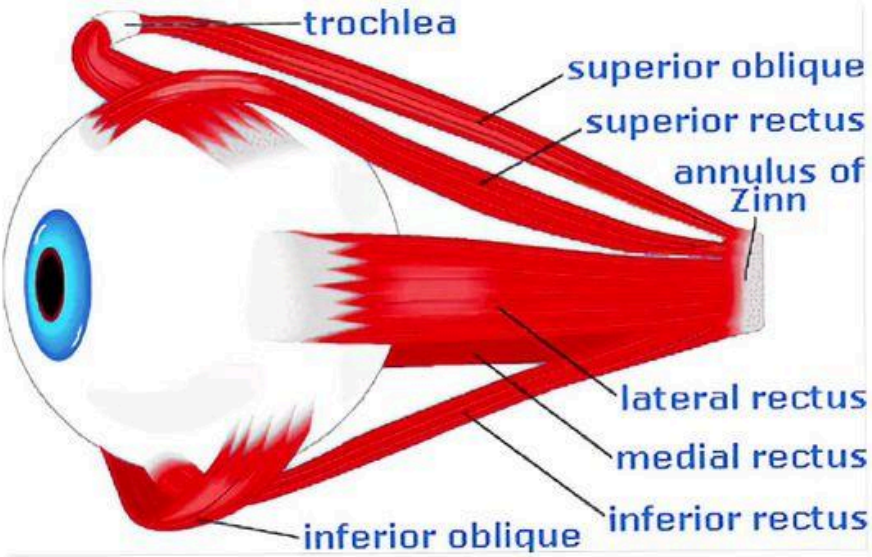
-Lateral rectus (Abducent)

-Superior oblique (Trochlear)

EXTRAOCULER MUSCLES NERVE SUPPLY

MNEMONIC **LR6 SO4 O3**

Lateral Rectus	6th Cranial N	***Abducent***
Superior Oblique	4th Cranial N	***Trochlear***
Others	3rd Cranial N	***Oculomotor***



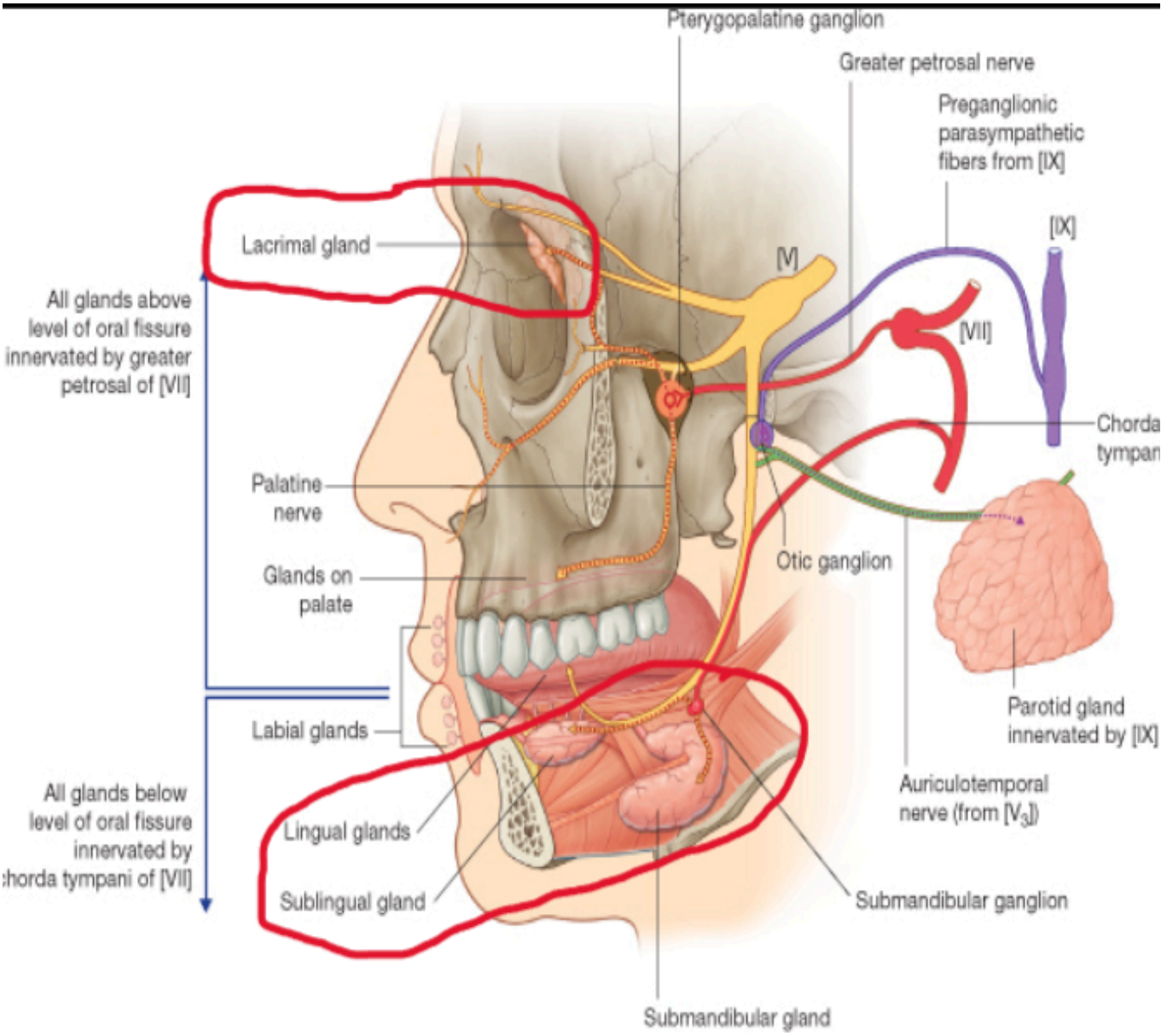
NERVE SUPPLY OF IRIS

Dilator pupillae/radial muscle :-Sympathetic

Constrictor pupillae/circular muscle :-Parasympathetic

Q2/Autonomic branch of the facial nerve supplies:

-Lacrimal and salivary glands



Q3,Q4

Deep tendon reflex	Muscle involved	Nerve supply	Root supply
Biceps	Biceps	Musculocutaneous	C5, C6
Triceps	Triceps	Radial	C6, C7, C8
Pectoralis	Pectoralis Major	Pectoral	C6, C7, C8
Brachioradialis	Brachioradialis	Radial	C5, C6
Finger flexors	Flexor Digitorum	Median and Ulnar	C7, C8, T1
Knee	Quadriceps Femoris	Femoral	L2, L3, L4
Adductor	Adductors	Obturator	L2, L3, L4
Ankle	Soleus/ Gastrocneumius	Sciatic/Tibial	S1, S2
Plantar	Small foot muscles	Plantar	

Q5

Difference Between

Spasticity & Rigidity.

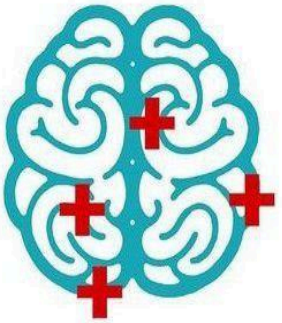
	Spasticity	Rigidity.
1	Lesion – Occurs in Pyramidal tract lesions; commonest Internal capsule	Occurs in Basal Ganglia Lesions so called Extra-Pyramidal Rigidity.
2	Muscles involved – Only one group either agonist or Antagonist.	Both Agonist & Antagonist are involved.
3	Hypertonia – Clasp Knife type of Rigidity.	Hypertonia – Lead pipe or Cog-Wheel type of rigidity.
4	Rigidity – Stretch sensitive.	Rigidity – Not Stretch sensitive.

Q6

UMNL VS LMNL

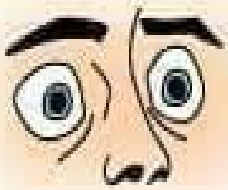
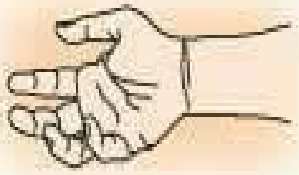
Upper motor neuron lesion (also known as pyramidal insufficiency) occurs in the neural pathway above the anterior horn cell of the spinal cord or motor nuclei of the cranial nerves.

Conversely, lower motor neuron lesion affects nerve fibers traveling from the anterior horn of the spinal cord or the cranial motor nuclei to the relevant muscle.



SIGNS	UPPER MOTOR NEURON LESION	LOWER MOTOR NEURON LESION
Types of Paralysis	Spastic Paresis	Flaccid Paralysis
Atrophy	No (disuse) Atrophy	Severe Atrophy
Deep Tendon Reflex	Increase	Absent
Pathological Reflex	+ve Babinski Sign	Absent
Superficial Reflex	Absent	Present
Fasciculation and Fibrillation	Absent	Could be Present

Glasgow Coma Scale

EYE OPENING			VERBAL RESPONSE			MOTOR RESPONSE		
								
Spontaneous	>	4	Orientated	>	5	Obey commands	>	6
To sound	>	3	Confused	>	4	Localising	>	5
To pressure	>	2	Words	>	3	Normal flexion	>	4
None	>	1	Sounds	>	2	Abnormal flexion	>	3
			None	>	1	Extension	>	2
						None	>	1

GLASGOW COMA SCALE SCORE

Mild	Moderate	Severe
13-15	9-12	3-8

MEDIC TESTS #1 EMT & PARAMEDIC EXAM PREP

بالتوفيق 👍