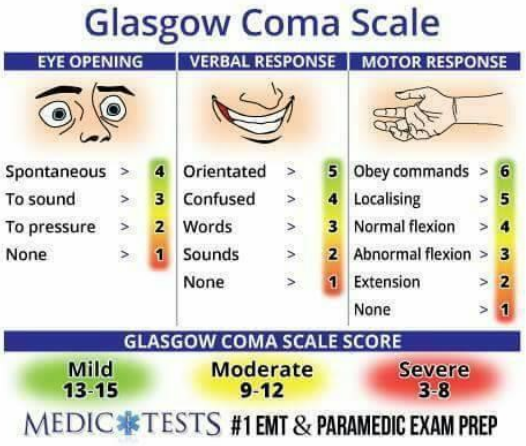
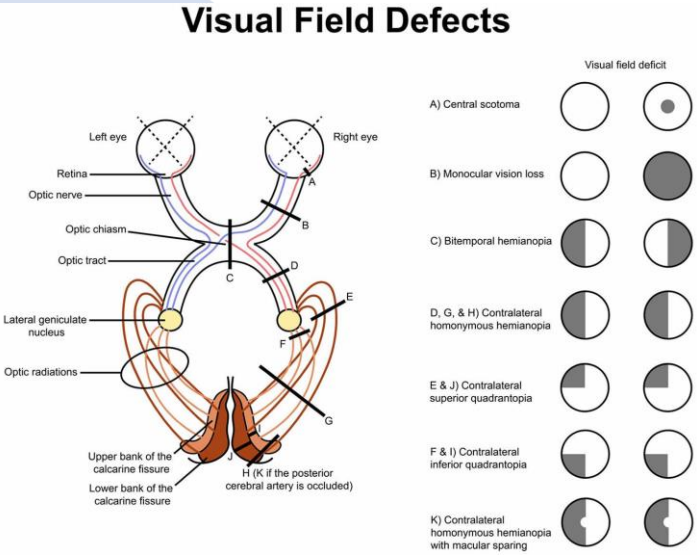
JU Neurology

1. **A patient, non vocalized, opens eye to pain, and has abnormal flexion to pain. What is his glasgow coma scale score?**

• 6



2. **A 25 years old female came to the clinic complaint of a headache associated with visual disturbances. While taking history, she reports that she also has galactorrhea and amenorrhea since five months, on lab examinations, she is found to have an elevated prolactin level, upon examination , her visual disturbance is most likely going to be :**



a. Bitemporal Hemianopia

b. Right Homonomous Hemianopia

c. Left Homonomous Hemianopia

d. Left Inferior Quadrantinopia

e. Right Superior Hemianopia

3. **A patient present to the clinic with left temporal lobe ischemic attack, what visual disturbance will it cause?**

A. Right superior quadrantanopia

B. Left superior quadrantanopia

C. Right inferior quadrantanopia

4. **Which of the following is not innervated by 3rd cranial nerves:**

A. Superior rectus

B. Lateral rectus

C. Inferior oblique

D. Inferior rectus

5. **A patient's left eye is deviated out and downward with some diplopia. His right eye is normal and both eyes are reactive to light, he has HTN and DM, what is the cause:**

a.3rd nerve palsy

6. True about right conductive hearing loss?

A. Central Weber test

B. Negative Rinne test on left ear

C. Negative Rinne test on right ear

7. Positive Rinne's test at both side with sound deviated to left on Weber's test , what is the cause?

a. left sensorineural loss

b. right sensorineural loss

c. right +left sensorineural loss

8. For a patient with hearing loss, what do the following results suggest? Rinne result: BC > AC in left ear, AC > BC in right ear; Weber result: Lateralises to left ?

a. Right sensorineural hearing loss

b. Normal hearing

c. Left sensorineural hearing loss

d. Left conductive hearing loss

e. Right conductive hearing loss

9. A 64 year old male patient, presented with complaining of decreased hearing in his right ear, after you examining him you concluded that he had CONDUCTIVE HEARING LOSS IN HIS RIGHT EAR. What is the finding on Webers and Rinne test that suggest this defect in the right ear :

a. Webers in the middle, Rinne positive

b. Webers lateralized to right ear, Rinne negative

c. Webers lateralized to right ear, Rinne positive

d. Webers lateralized to left, Rinne negative

e. Webers in the middle, Rinne negative

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10. A patient was diagnosed with Brown-Sequard syndrome, what's false about his case?

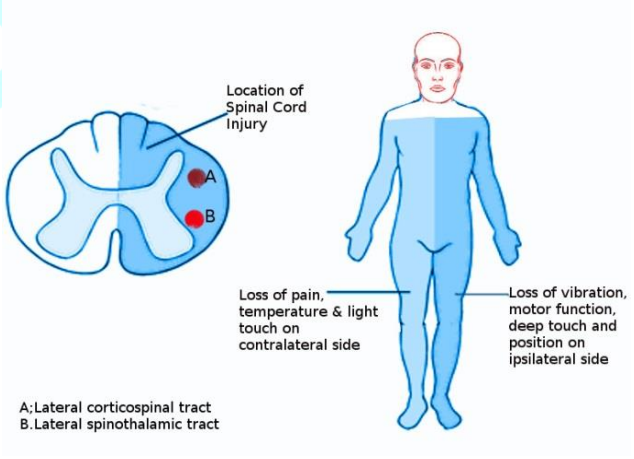
A. Ipsilateral paralysis

B. Contralateral loss of pain & temperature

C. Contralateral loss of discriminative touch

D. Hemisection of the spinal cord

E. Ipsilateral loss of proprioception



11. Which of the following can be seen in a patient with brown Sequard syndrome:

• ipsilateral extensor planter reflex

12. A 19-year-old man is brought to the emergency department after being stabbed in the back. Vital signs are normal. He is alert and oriented, with a Glasgow Coma Score of 15. Neurologic examination demonstrates the absence of motor activity in all muscle groups of the right lower extremity, as well as decreased muscle tone. Left leg motor function is normal. Right patellar reflex, Achilles reflex, and Babinski sign are absent. There is loss of light touch and proprioception below the right costal margin. Pinprick sensation is absent on the left side at the level of the umbilicus and below. Which of the following is the most likely location of this patient's injury ?

a. Right spinal hemisection at T10

b. Complete spinal transection at T8

c. Anterior spinal artery injury at T10

d. Right spinal hemisection at T8

e. Anterior spinal artery injury at T8

13. Anterior spinal artery syndrome, which is not affected:

a. pain + temperature

b. autonomic

c. motor

d. vibration + proprioception

Anterior Cord Syndrome

14. All of the following are in favor of an epileptic seizure rather than vasovagal syncope, EXCEPT :

a. Amnesia following event

b. Tonic - Clonic Convulsions

c. Rapid recovery

d. Lateral tongue biting

e. Flush/cyanosed Complexion

7.2 Features that help discriminate vasovagal syncope from epileptic seizure

Feature	Vasovagal syncope	Seizure
Triggers	Typically pain, illness, emotion	Often none (sleep deprivation, alcohol, drugs)
Prodrome	Feeling faint/ lightheaded, nausea, tinnitus, vision dimming	Focal onset (not always present)
Duration of unconsciousness	<60 s	1–2 mins
Convulsion	May occur but usually brief myoclonic jerks	Usual, tonic–clonic 1–2 mins
Colour	Pale/grey	Flushed/cyanosed, may be pale
Injuries	Uncommon, sometimes biting of tip of tongue	Lateral tongue biting, headache, generalised myalgia, back pain (sometimes vertebral compression fractures), shoulder fracture/ dislocation (rare)
Recovery	Rapid, no confusion	Gradual, over 30 mins; patient is often confused, sometimes agitated/ aggressive, amnesic

15. All of the following support the diagnosis of epileptic seizure over vasovagal syncope except:

• upright posture restores consciousness

16. Patient with convulsions, loss of consciousness, confusion, no prodromal phase:

• Generalized seizure

17. A 25 year old female patient, previously healthy, had bad social history that significant for stress life, presented to ER with abnormal movement characterized by side to side pelvic thrusts movements and asynchronous limbs contraction. One of the following is less likely to be related to her condition :

a. Her condition might be occurred multiple times per day

b. This is might be Functional dissociative attacks

c. Her abnormal movements suspected to last longer than 5 minutes

d. She is mostly will not have confusion phase

e. She might have AURA

18. Patient comes to the ER complaining of right sided lower limb weakness of one hour duration. Upon examination power in left lower limb is 5/5 while it is 3/5 in his right lower limb. During examination , the patient insults the nurses and screams inappropriate words, he also has incontinence. This patient most probably has a lesion in the distribution of which of the following arteries :

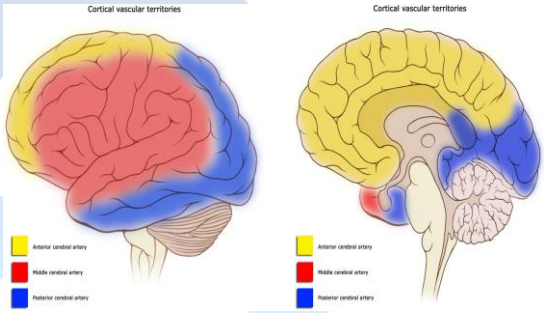
a. Middle cerebral artery

b. Posterior cerebral artery

c. Basilar artery

d. Anterior cerebral artery

e. Superior Cerebellar artery



19. Change in personality + urinary incontinence + partial motor weakness in one side on lower limbs (4/5 power) which of the following is involved?

a. anterior circulation

b. vertebral basilar

20. A 45 year old male presented to ER complaining of sever headache. He was found to have photophobia and positive brudzinki test as well as kerning's test.Blood pressure 158/88, temperature 36.9, respiratory rate 18, pulse rate 95. Which of the following is the most likely cause of his signs and symptoms ?

a. Migraine

b. Temporal Arteritis

c. Cluster headache

d. Subarachnoid hemorrhage

e. Ischemic cerebrovascular accident

21. All of the following is true except:

• loss of meningism always exclude meningitis

22. A 45 year old gentleman, presented to the ER with inability to close his left eye, on further examination you noticed loss of the left forehead wrinkles, loss of the left nasolabial fold, drooling of saliva, what would you suspect ?

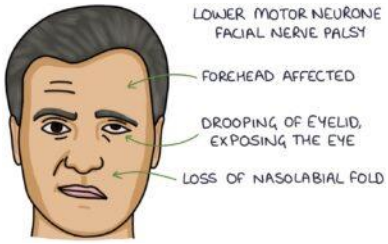
a. Upper facial nerve palsy

b. Stroke

c. Upper trigeminal nerve palsy

d. Lower trigeminal nerve palsy

e. Lower facial nerve palsy



23. Ramsay hunt syndrome is:

• severe lower motor neuronal lesion involving 7th cranial nerve

Primary Headaches

	Tension Headache	Migraine	Cluster Headache
Pain Location	Bilateral, band-like tightening around forehead	Unilateral/Bilateral	Severe unilateral pain around eye/ along sides of the head
Pain Quality	Pressing/Tightening (non-pulsatile)	Pulsating/Throbbing	Variable
Duration	Continuous for ~30 minutes	4-72 hours if untreated or treated unsuccessfully	15-180 minutes, usually at night Can occur several times a day Lasts 1-2 months but can recur
Other Symptoms	None	• Photophobia and phonophobia • Nausea/vomiting • Aura e.g. flashing lights, fortification spectra, numbness, tingling, scotoma • **Character of aura:** fully reversible, develop over 5 mins, lasts no more than 60 mins, headache develops immediately after	**On same side as headache:** • Red, watery eye • Nasal congestion/runny nose • Swollen/drooping eyelid • Forehead and facial sweating • Constricted pupil

24. A 15 year old female patient, previously healthy, presented to neurology clinic complaining of headache of 2 months duration, which was unilateral, gradual, episodic occurring every 10 days, and lasts for around 10 hours each time. One of the following is less likely to be related to her condition :

a. AURA

b. Nausea and vomiting

c. Favors dark and quit room

d. Symptom free interval

e. Conjunctival injection and Agitation

25. Wrong about cluster headache:

a. rapid in onset

b. during cluster pain is always at the same side

c. associated with conjunctival injection

d. remission can reach to years

e. more common in females than males

26. A 33-year-old woman comes to the office with severe unilateral facial pain for the past several days. She reports sharp, shooting pain that is confined to her cheeks and jaw, lasts several seconds, and occurs 10-20 times a day. The pain is sometimes triggered by a cold breeze, brushing of her teeth, or chewing. The patient has been taking ibuprofen for the pain without much relief. She has never experienced this condition before. She has stable vital signs. Upon physical examination, a similar pain is elicited by lightly touching the patient's cheeks. Otherwise, neurologic examination demonstrates no focal deficits. Which of the following is the most likely cause of this patient's symptoms ?

a. Trigeminal neuralgia

b. Temporal arteritis

c. Herpes zoster infection

d. Migraine

e. Fibromyalgia

27. A 17-year-old male patient, presented to the ER as case of Road Traffic Accident with major head trauma, the patient is unconscious, On exam the patient has absent gag reflex, unable to breath by his own so he is on assisted ventilation device, and bilateral lower limb weakness. Where is the most likely location of the lesion ?

a. Mid brain

b. Medulla oblongata

c. Red nucleus

d. Pons

e. Cerebellum

28. Patient presented with ipsilateral loss of sensation on face, contralateral loss of sensation on body, deviation of tongue on protrusion, which of the following causes this pattern of symptoms?

• Medullary infarction

29. A 50-year-old male patient, has history of long term type 2 diabetes and hypertension, presented to the ER complaining of headache and right lower limb weakness. The patient underwent brain CT scan and diagnosed with hemorrheagic stroke affecting the midbrain. On Exam of the Cranial nerves, what most likely finding you will notice?

a. Exaggerated Gag reflex

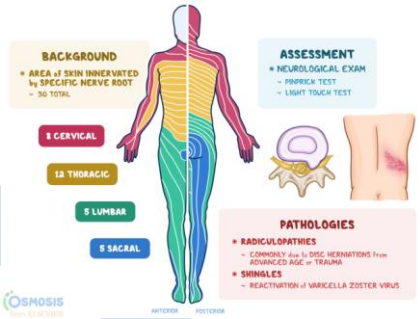
b. Absent accommodation reflex bilaterally

c. Absent light reflex in the Right eye and intact in the left eye

d. Absent light reflex in the left eye and intact in the Right Eye

e. Absent light reflex bilaterally

30. A 33-year-old man with a history of multiple sclerosis is brought to the emergency department due to new- onset leg weakness, numbness, and urinary incontinence. In the past, he has had several acute exacerbations of multiple sclerosis, causing vertigo, vision impairment, and upper extremity weakness, all of which improved after glucocorticoid treatments. A year ago he stopped taking disease-modifying therapy due to severe adverse effects. His vital signs are within normal limits. Mental status and cranial nerve examination are normal. Muscle strength in the upper extremities is 5/5 and in the lower extremities is 3/5. Pinprick sensation is decreased below the nipple. Proprioception is decreased over both lower extremities. Babinski reflex is present bilaterally. MRI of this patient is most likely to reveal new plaques in which of the following locations ?



a. Brainstem

b. Thoracic spinal cord

c. Cerebellar vermis

d. Lumbosacral spinal cord

e. Cerebellar hemispheres

31. Which of the following is wrong about cranial nerve V innervations?

a. mastication muscles

b. taste of anterior 2/3 of tongue

c. corneal reflex

32. One of the following favors Lower Motor Neuron lesion over the Upper Motor Neuron lesion :

a. Spasticity in long standing disease

b. Flexor plantar response

c. Increased deep tendon reflexes

d. Clonus

e. Extensors weakness in arms

11.12 Features of motor neurone lesions

	Upper motor neurone lesion	Lower motor neurone lesion
Inspection	Usually normal (wasting in longstanding lesions)	Wasting, fasciculation
Tone	Increased with clonus	Normal or decreased, no clonus
Weakness	Preferentially affects extensors in arms, flexors in leg	Usually more focal, in distribution of nerve root or peripheral nerve
Deep tendon reflexes	Increased	Decreased/absent
Plantar response	Extensor	Flexor

33. Which of the following is wrong about upper motor neuron lesion?

a. cause pseudobulbar palsy

b. cause dysarthria and dysphonia

c. cause dysphagia

d. cause weakness and fasciculation

e. cause brisk jaw jerk

34. True about fasciculations:

A. Can be present on orbicularis oculi

B. They're regular twitching of muscles

C. Associated with UMN Lesions

35.True about bulbar & pseudobulbar palsy?

A. Dysphagia & dysarthria are only present in pseudobulbar palsy

B. Tongue fasciculation is present with bulbar palsy

	Pseudobulbar (UMN CN IX, CN X, CN XII)	Bulbar (LMN CN IX, CN X, CN XII)
Gag	Increased	Absent
Tongue	Spastic	Wasted, Fasciculations
Jaw Jerk	Increased	Absent / Normal
Speach	Spastic Dysarthria	Nasal
Limbs	UMN signs	LMN signs
Emotions	Labile	Normal
Causes	Bilateral CVA Multiple Sclerosis Motor Neuron Disease	Motor Neuron Disease GB Syndrome Poliomyelitis Brainstem infarction

36.Which of the following is true:

• bilateral upper motor neuronal lesion above the level of the pons causes brisk jaw reflex

37.False about gait?

A. Bilateral UMN lesion causes scissor gait

B. When a person falls while standing and opening their eyes, this is cerebellar ataxia

C. Parkinsonism gait is shuffling with small steps and loss of arm swing

D. Cerebellar disease causes narrow-based gait

38.-All of the following signs are seen in cerebellar dysfunction except :

a. Dysmetria

b. Dyssynergia

c. Delayed relaxation of the reflexes

d. Hypotonia

e. Intentional tremor

39. Primitive reflexes are due to?

a. Frontal lobe damage

b. Temporal lobe damage

c. Parietal lobe damage

40.A 70 year old male patient complaining from sleep disturbances, low mood, excessive salivation ,resting tremor, upon examination he has stooped posture , shuffling, loss of arm swing and postural instability, slow motion, the most likely diagnosis is :

a. Spinal cord disorder

b. Cerebellar lesion

c. Parkinson disease

41.All of the following are true, EXCEPT:

A. Altered sensation is present in early cases of Alzheimer disease

B. Parosmia is the perception of pleasant odors as unpleasant

C. Parkinson disease is associated with olfactory hallucinations

42.All of the following can be seen usually in a Parkinson patient except:

- **symmetrical hand rest tremor**

43. Patient after knee replacement surgery (injury to common peroneal nerve). All of the following are found except:

- **loss of sensation on the inner aspect of the leg**

44.A patient is able to extend his elbow while standing, but unable to extend it while prone. What's the muscle power scale according to medical research council scale:

a. 1

b. 2

c. 3

d. 4

e. 5

11.18 Medical Research Council scale for muscle power

0	No muscle contraction visible
1	Flicker of contraction but no movement
2	Joint movement when effect of gravity eliminated
3	Movement against gravity but not against examiner's resistance
4	Movement against resistance but weaker than normal
5	Normal power

11.24 Monosynaptic (deep tendon) reflexes and root innervation

Reflex (muscle)	Nerve root
Biceps	C5
Supinator (brachioradialis)	C6
Triceps	C7
Knee (quadriceps)	L3, 4
Ankle (gastrocnemius, soleus)	S1

Reflexes involving cranial nerves

Name	Sensory	Motor
Pupillary light reflex	II	III
Accommodation reflex	II	III
Jaw jerk reflex	V	V
Corneal reflex, also known as the blink reflex	V	VII
Vestibulo-ocular reflex	VIII	III, IV, VI +
Gag reflex	IX	X