

MiniOSCE

Neurology
test bank

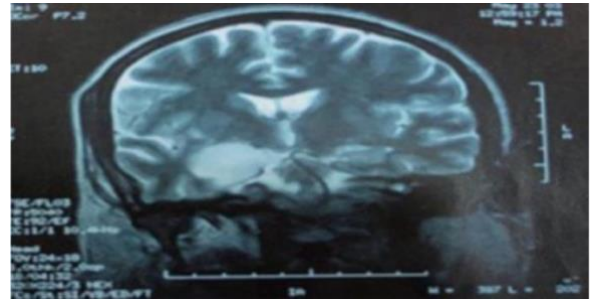


By

Malak Abd-Alhadi
Tuqa Abu shanab
yomna khilil

Nuerological emergencies and CNS infections

- 1) The following brain MRI is for a 58 year old patient with headache, fever and altered level of consciousness, what is the dignosis?



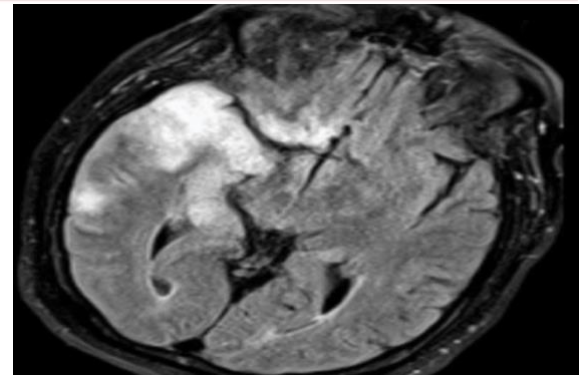
Answer: Herpes encephalitis

- 2) What type of meningitis is presented with these features?

Opening pressure	Elevated
WBC	≥ 100 cells/ μ L
Cell type	<i>Polymorphonucleocytes</i>
Glucose	Low
Protein	Elevated

Answer: Bacterial meningitis

- 3) Patient with headache, fever, known to have viral encephalitis. what's the most common cause?



- A. Herpes simplex virus 1
- B. Herpes simplex virus 2

Answer: A

- 4) According to these CSF findings which of the following is the most suspected disease?

Cells (pleocytosis)	Protein	Glucose	Other
Polymorphs	High	Low	Culture and Gram stain may be positive

- A. Viral meningitis/ encephalitis
- B. Bacterial meningitis
- C. Guillain-Barré syndrome
- D. Tuberculosis meningitis

Answer: B

5) Which disease cause increased albumin and low cells in CSF (albuminocytological dissociation) ?

Answer: Guillain-Barré syndrome

6) 65 years old male patient with fever, headache, blurred vision and decrease in concentration, Which of the following doesn't cause the disease shown in the following CT?

- A. Dental infection
- B. Otitis
- C. Sinusitis
- D. Bronchiectasis
- E. Cyanotic congenital heart diseases

Answer: E

7) These CSF findings are for a patient with:

Color clear PMN cells

Nil Mononuclear cells < 5 (mm³ idk)

Glucose 2/3 > 1/2 blood glucose (40-80 gm/ dL)

Protein 50 mg (2-4 g)

- A. Normal CSF
- B. Viral meningitis
- C. Bacterial meningitis
- D. TB meningitis
- E. Fungal meningitis

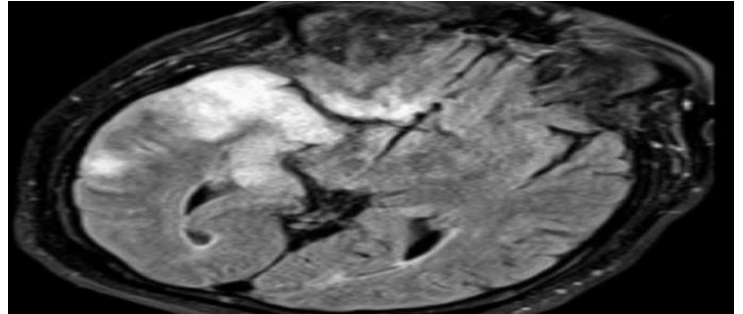
Answer: A

Disease
Bacterial meningitis
Viral meningitis/encephalitis
Tuberculous meningitis
Guillain-Barré syndrome
MS
ADEM



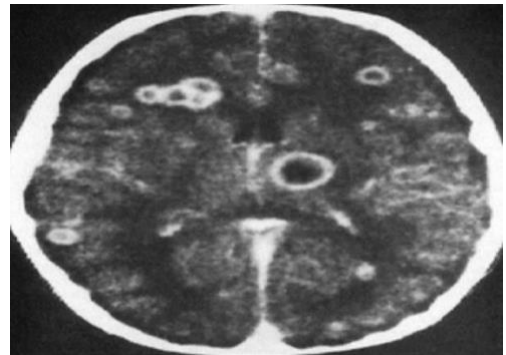
- 8) History of fever + altered mental state + without meningeal irritation signs

Answer: Herpes encephalitis



- 9) Patient presented with high fever and this MRI, What is the cause?

Answer: Bacterial infective endocarditis



- 10) A patient came with signs and symptoms of encephalitis and he's suspected to have viral encephalitis with CT/MRI picture. Which virus is the most common cause?

Answer: Herpes simplex virus

- 11) Unresponsive patient with cognitive impairment, slight response to tactile stimulation but responsive to continuous noxious stimulation

Answer: stupor

- 12) 45 year old man presented to the ER with headache and seizures, fever and confusion, he has a history of frontal sinusitis, brain MRI was done. Which of the following is the most important initial step in management:

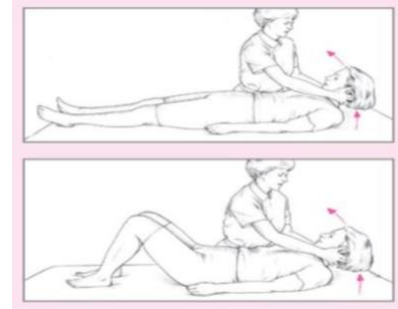
- A. Surgery
- B. Steroids
- C. Intravenous antibiotics
- D. Intravenous acyclovir

Answer: C

13) The sign/ test demonstrated in the picture is:

- a. kerning's sign
- b. nuchal rigidity
- c. Brudzinski's sign
- d. Hoffmann sign

Answer: c



13) Which of the following is wrong regarding CSF findings in a patient with bacterial meningitis ?

- a. Positive gram stain
- b. Percentage of neutrophils <20%
- c. Low glucose
- d. High protein

Cerebrospinal Fluid Parameter	Typical Finding
Appearance/ opening pressure	Turbid/ 200-500 mm H ₂ O
White blood cell count	1000-5000/mm ³ (range <100 to >10,000)
Percentage of neutrophils	<20%
Protein	100-500 mg/dL
Glucose	≤40 mg/dL

Answer: b

14) A patient complains from headache of 3 days duration. It is also accompanied with fever and, recently, altered mental status. This patient probably has:

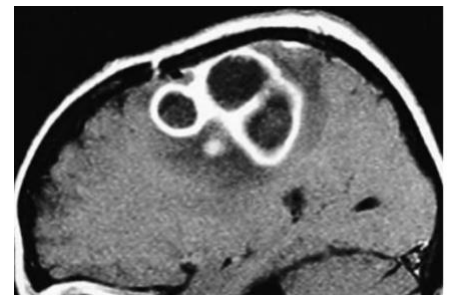
- a. Hydrocephalus
- b. Subarachnoid hemorrhage
- c. HSV encephalitis

Answer: c

15) The clinical case described a patient with fever, headache, and they were noted to have very poor dental hygiene. What do you suspect?

- a. Meningitis
- b. Encephalitis
- c. Stroke
- d. Brain abscess

Answer: d



16) Which of the following is wrong regarding CSF findings in a patient with bacterial meningitis?

- a. Positive gram stain
- b. Percentage of neutrophils <20%
- c. Low glucose
- d. High protein

Answer: b

Cerebrospinal Fluid Parameter	Typical Finding
Appearance/ opening pressure	Turbid/ 200-500 mm H ₂ O
White blood cell count	1000-5000/mm ³ (range <100 to >10,000)
Percentage of neutrophils	<20%
Protein	100-500 mg/dL
Glucose	≤40 mg/dL

17) CSF: High protein content and few cells

- a. Bacterial meningitis
- b. Viral meningitis
- c. TB
- d. GBS
- e. MS

Answer: d

18) Which of the following is not correct about CSF findings:

- a. Glucose
- b. Proteins
- c. Cells

Answer: a

CSF FINDINGS			
	Bacterial	Viral	TB
• Cells	10-100,000	<100	250-500
•	polys	lymphs	lymphs
• Glucose	normal	normal	very low
• Protein	↑↑	NI -↑	↑↑↑
• G-Stain	gen +ve	-ve	+ve Zn

19) These are the CSF findings of a patient with viral infection. All of the values are consistent with viral infection EXCEPT:

- a. Cells
- b. Differentials
- c. Glucose
- d. Protein
- e. G-stain

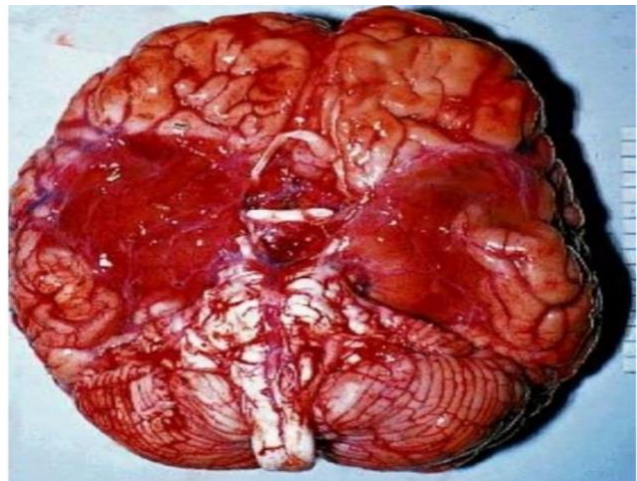
ans : B

CSF FINDINGS			
	Bacterial	Viral	TB
Cells	10 – 100,000	<100	250 - 500
Differentials	Neutrophils	Lymphocytes	Lymphocytes
Glucose	Low	Normal	Very low
Protein	↑↑	NI - ↑	↑↑↑
G-stain	Gen +ve	-ve	+ve Zn

20) Hemorrhagic encephalitis is a complication of viral encephalitis, the most common cause of which is:

- a. HSV2
- b. Enterovirus
- c. Coxsackie virus
- d. EBV
- e. HSV1

Ans: E



Stroke section

1-Which of the following is the most common vascular cause of hemorrhagic stroke:

- A. Diabetes
- B. Old age
- C. Hypercholesterolemia
- D. Smoking
- E. Hypertension

Ans: E

2-Which of the following is not a cause of subarachnoid hemorrhage:

- A. Chronic hypertension leading to charcot bouchard microaneurysms
- B. AV malformation
- C. Head injury
- D. Mycotic aneurysm
- E. Berry aneurysm

Ans: A

3-In ischemic stroke,lateral medullary syndrome is caused by occlusion of which artery:

- A. Anterior inferior cerebellar artery
- B. Posterior inferior cerebellar artery
- C. Superior cerebellar artery
- D. Subclavian artery
- E. Basilar artery

Ans: B

4-A patient presented with right hemiparesis, right facial droop, and he had expressive aphasia, which of the following is the artery likely to be occluded:

- A. Right middle cerebral artery
- B. Left middle cerebral artery
- C. Right anterior cerebral artery
- D. Left anterior cerebral artery
- E. Basilar artery

Ans: B

5-Which of the following is not part of lacunar stroke syndrome:

- A. Gerstmann syndrome
- B. Purely motor stroke
- C. Purely sensory stroke
- D. Dysarthria-clumsy hand syndrome
- E. Ataxic hemiparesis

Ans: A

6-transient ischemic attack in the anterior circulation(carotid territory) has which of the following manifestations:

- A. Weakness of four limbs
- B. Transient loss of consciousness
- C. Amaurosis fugax
- D. Vertigo
- E. Diplopia

Ans: C

7) A 67-year-old woman presented with a 2-hour history of left-sided weakness affecting her face, arm and leg. She had previously been well and the weakness had developed suddenly. On examination, she was fully conscious, with mildly slurred speech and profound left-sided weakness. Blood pressure was 130/80 mm Hg. CT head scan was unremarkable with no evidence of hemorrhage. What is the most appropriate treatment?

- a. Alteplase
- b. Aspirin
- c. Heparin
- d. Tinzaparin
- e. Warfarin

Ans : A (it's a thrombolytic, other agents are either anticoagulants or anti platelets)

8) A 64-year-old man with a history of hypertension presents to the ER with the sudden onset of numbness of his left leg, arm, and face. His motor examination is normal. What is the most likely site of his lesion?

- a. Right thalamus
- b. Left thalamus
- c. Left postcentral gyrus
- d. Right precentral gyrus
- e. Right corona radiata

Ans : A (I think pure sensory lacunar)

9) A 68-year-old man taking warfarin falls while in the hospital, is found on the floor, and is difficult to rouse. He has a new right hemiparesis and an intracranial

10) hemorrhage is suspected. What is the most appropriate initial radiologic study?

- a. Head CT with contrast
- b. Head CT without contrast
- c. Skull x-ray
- d. Cerebral angiography
- e. Brain perfusion scan

Ans : B

11) An 81-year-old right-handed man with hypertension and hypercholesterolemia presents with the sudden onset of a dense right hemiplegia. His language is normal, and he has normal eye movements and pupillary reactions. He has no sensory deficits. What is the most likely localization of his stroke?

- a. Left motor cortex
- b. Left internal capsule
- c. Left thalamus
- d. Left midbrain
- e. Left lateral medulla

Ans : B

12) An 84-year-old man is transferred from another hospital with a reported hypertensive hemorrhage. The films from that hospital are not available, and there are no further details. Which of the following is the most likely location of his hemorrhage?

Answer: Basal gangli

13) Which is associated with anterior circulation ischemia/infarction?

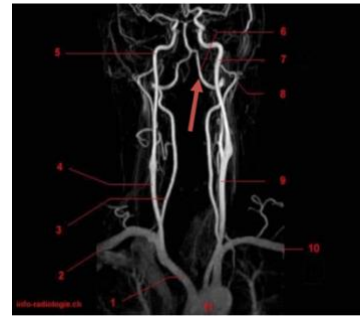
Answer: Dysphasia

14) Which of the following is a characteristic of a UMN lesion?

Answer: Extensor plantar response

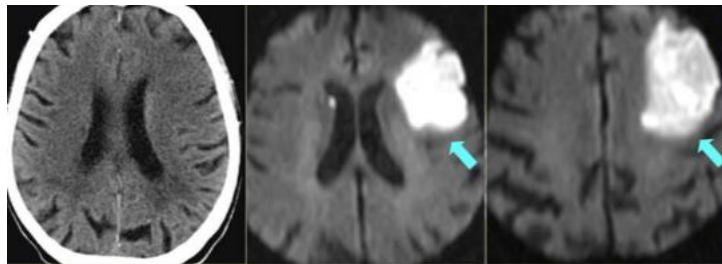
15) The red arrowed vessel represents:

vertebral artery



16) A 65-year-old patient presented to the ER with right hemiparesis. A non-contrast CT scan and diffusion-weighted MRI are shown. The patient most likely has:

- a. Acute brain infarction
- b. Brain hemorrhage
- c. Transient ischemic attack
- d. Subarachnoid hemorrhage
- e. Brain tumor (glioblastoma)



Answer: A

17) This image represents:

- a. Edema
- b. Subarachnoid hemorrhage
- c. Epidural hematoma
- d. Brain hemorrhage

Answer: D



18) Choose the wrong match:

- a. Tone
- b. Babinski sign
- c. Reflexes
- d. Fasciculations
- e. Bulk

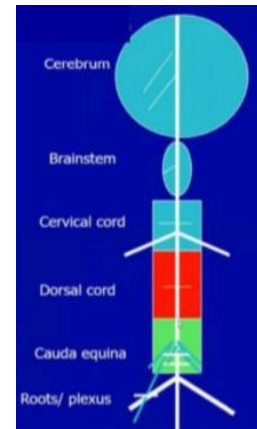
Answer: E

Feature	Upper motor Neuron	Lower motor Neuron
Power	Weak	Weak
Tone	Increased (spastic)	Decreased (flaccid)
Bulk	Atrophy	Normal
Reflexes	Increased (hyperreflexia)	Decreased (hyporeflexia)
Fasciculations	Absent	May be present
Babinski sign	Present	Absent
Distribution	Proximal > distal	distal > proximal

19) A patient comes with left tongue, face, arm and leg hemiparesis, what is the affected lesion:

- a. Right cerebellum
- b. Left cerebellum
- c. Brain stem
- d. Right cerebrum
- e. left cerebrum

Answer: D



20) Name the pointed artery

- a. Basilar artery
- b. Internal carotid artery
- c. PCA
- d. MCA

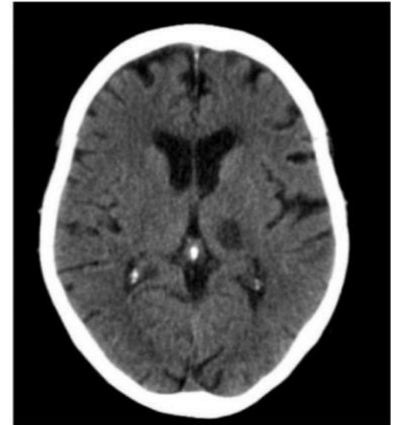
Ans : A



21) A patient comes with right hemiparesis, on CT this infarction was found, which of the following is not associated with this type of infarction?

- a. A fib
- b. HTN is the most common cause
- c. it occurs in small arteries
- d. it can cause pure motor syndrome

Answer: A (the affected area is the internal capsule)



22) A patient is present with headache that was described as 'worst headache in my life'. He also had neck stiffness. Given the imaging shown here, what is your diagnosis?

- a. Subdural hemorrhage
- b. Subarachnoid hemorrhage
- c. Ischemic stroke

Answer: B



23) Name the pointed artery.

- a. Vertebral
- b. Basilar
- c. ICA
- d. MCA

Answer: A



24) Which of the following visual field defects will the patient most likely suffer from as a consequence of below-shown left occipital infarction ?

- a. left homonymous lower quadrantanopia
- b. Right homonymous lower quadrantanopia
- c. Right homonymous upper quadrantanopia
- d. Left lateral Homonymous Hemianopia
- e. Right lateral Homonymous Hemianopia

Answer: E



25) Which of the following arteries is a branch of the pointed artery (Red arrow) :

- a. Middle cerebral artery
- b. Anterior cerebral artery
- c. Ophthalmic artery
- d. Posterior inferior cerebellar artery
- e. Anterior communicating artery .

Answer: D



26) Based on the figure beside, the non-contrast head computed tomography (CT) demonstrates:

- a. Old brain infarction
- b. Intraparenchymal Hemorrhage
- c. Tumor
- d. MS

Answer:A ?



27) Which of the following arteries is affected if the weakness in the face and arm more than legs?

- a. Middle Cerebral Artery
- b. Anterior cerebral artery
- c. PICA
- d. AICA

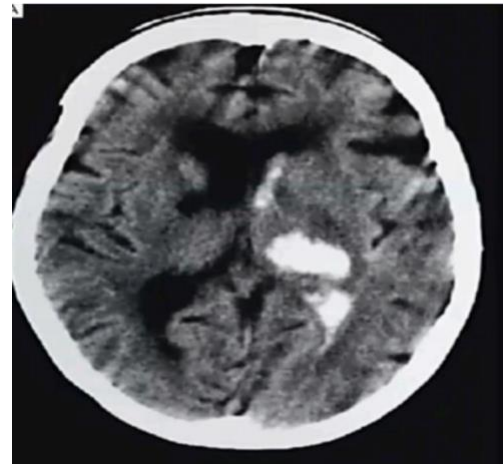
Answer: A



28) This image represents:

- a. Brain hemorrhage
- b. Subarachnoid hemorrhage
- c. Epidural hematoma
- d. Edema
- e. Brain tumour

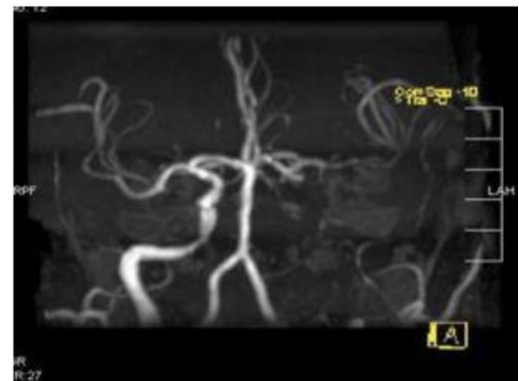
Ans A



29) The missing (occluded) artery in this angiogram is:

- a. common carotid artery
- b. middle cerebral artery
- c. internal carotid
- d. vertebral a

Answer:C



30) This sign occurs in all of the following except

- a. cerebral lesion
- b. brainstem lesion
- c. spinal cord lesion
- d. Myopathy/muscular dystrophy

Ans: D



31) Left internal carotid artery occlusion, all of the following may be present except:

- a. vertigo
- b. Right homonymous hemianopia
- c. Right hemiparesis
- d. Aphasia
- e. Transient vision loss in the left eye

Ans D



32) Which of the following is wrong about this infarct (patient presented with hemiparesis)?

- a. hypertension is a risk factor
- b. it occurs in small vessels
- c. it is in the internal capsule
- d. it is in the thalamus

Ans D



33) A right sided patient presented with Broca's aphasia. Going back through the patient's history, he had experienced three episodes of transient visual loss in his left eye. The patient's condition is explained by:

a. Internal carotid artery stenosis

34) A case of pure motor symptoms, where is the infarct?

a. Left internal capsule

35) Numbness in right face, left body, right sided Horner's syndrome, and dysmetria. Where is the lesion:

a. right AICA

36) Which of the following is seen in an UMN lesion?

a. Brisk abdominal and cremasteric reflexes

B. Weakness in the upper extensors more than flexors

Ans A

37) Thrombosis of which artery will lead to lateral medullary syndrome (Wallenberg's syndrome), ipsilateral facial numbness with contralateral body numbness in addition to dysphagia:

a. Subclavian artery

b. Anterior inferior cerebellar artery

c. Basilar artery

d. Superior cerebellar artery

e. Posterior inferior cerebellar artery

Ans:E

38) A 74-year-old hypertensive man developed an acute onset of severe weakness in his right side involving his lower face. On examination, he has a right hemiplegia with no sensory loss. Which one of the following is the most likely diagnosis?

a. Left thalamic infarction

b. Left lateral medullary syndrome

c. Left posterior cerebral artery infarction

d. Left internal capsule infarction

e. Total left middle cerebral artery infarction

Ans:D

39) Which one of the following is the most likely site of the lesion in a hypertensive person with the sudden onset of numbness of his left leg, arm and face with normal motor examination

- a. Right thalamus
- b. Right occipital lobe
- c. Right precentral gyrus
- d. Right corona radiata
- e. Right internal capsule

Ans A

40) Which one of the following is NOT relevant in a 25-year-old woman with acute ischemia

- a. History of sudden death of her father at age of 70 years.
- b. history of hypertension
- c. History of previous deep vein thrombosis (DVT)
- d. History of oral contraceptive use
- e. history of a cardiac murmur

Ans A

41) left weber syndrome (left third nerve palsy and right hemiparesis) is caused by a lesion in:

- a. right pons
- b. right medulla
- c. left midbrain
- d. left pons
- e. left medulla

Ans C

42) The single most important modifiable risk factor for stroke (both ischemic and hemorrhagic) is:

- a. Atrial fibrillation
- b. Systemic hypertension
- c. Dyslipidemia
- d. Diabetes mellitus
- e. Smoking

Ans B

43) Which one of the following is the most likely location of hypertensive intracerebral hemorrhage?

- a. Frontal lobe
- b. Internal capsule
- c. Midbrain
- d. Corpus callosum
- e. Basal ganglia

Ans E ?

44) Which one of the following leads to difficulty in speech production with impaired repetition but intact comprehension?

- a. Broca's aphasia
- b. Transcortical motor aphasia
- c. Global aphasia
- d. Conduction aphasia
- e. Wernicke's aphasia

Ans A

45) A 65 years old hypertensive patient came with stroke. CT scan showed this pic (close to the one in exam). What is the most probable cause?

Answer: Charcot-Bouchard aneurysm



46) A pic of subarachnoid hemorrhage ,What is the most common cause?

Answer: Rupture of berry aneurysm



47) What's the most common cause of atherosclerosis from the table?

Answer: High blood pressure

Risk Factor

- Hypertension
- Cardiac disease
- Atrial fibrillation
- Diabetes mellitus
- Smoking
- Alcohol abuse
- Hyperlipidemia

48) 45 year old, female, perfectly healthy (no history of DM or HTN), came with headache. The following CT scan suggests ...?

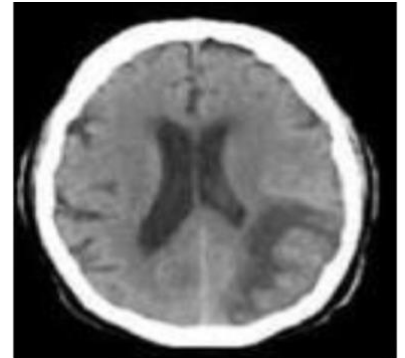
Answer: Arteriovenous malformation



49) Patient to the following CT, what do you expect to find in him?

- A. Left hemianopia
- B. Broca's aphasia
- C. Wernicke's aphasia
- D. Neglect of other the part of the body

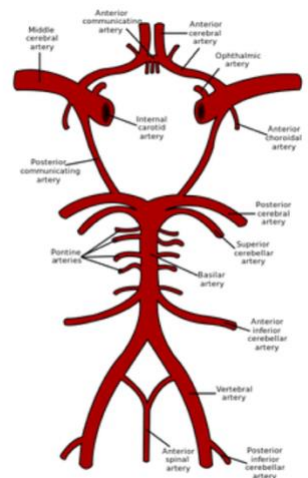
Answer: C



50) 1. Which of the following arteries is involved in wallenberg syndrome?

- A. Anterior cerebral artery
- B. Posterior inferior cerebellar artery
- C. Basilar artery

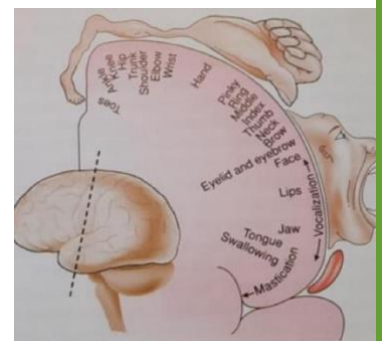
Answer: B



51) Which artery supplies the leg region in the motor homunculus?

- A. Anterior communicating artery
- B. Posterior cerebral artery
- C. Middle cerebral artery
- D. Anterior cerebral artery

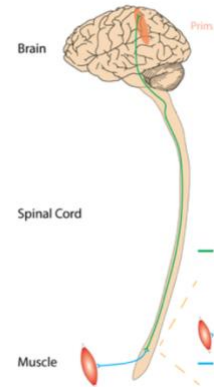
Answer: D



52) All of the following are features of LMN except?

- A. Fasciculation
- B. Hypotonia
- C. Areflexia
- D. Planter extension reflex
- E. Muscle atrophy

Answer: D



53) Right-handed patient presented with a right hemisphere anterior ischemic Lesion, all of the following can be a result of this ischemic injury except ?

- A. Sensory loss
- B. Hemiplegia
- C. Upper motor neurons pattern of facial weakness
- D. Broca aphasia

Answer: D

54) The most common cause of cardioembolic stroke ?

Answer: A fib

55) Patient with left hemianopia, which structure was damaged?

- A. Right optic nerve
- B. Optic chiasm
- C. Right optic tract

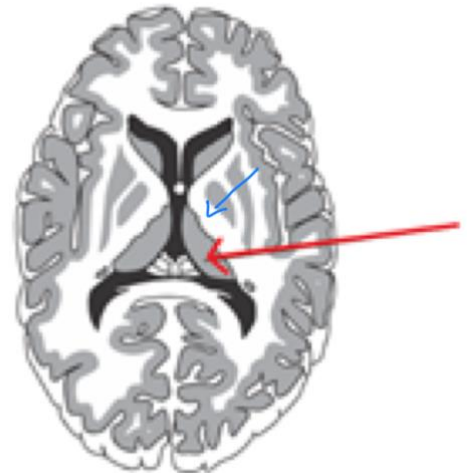


Answer: C

56) The function of the pointed structure (red arrow) :

- A. Motor coordination
- B. Sensory processing
- C. Pyramidal function
- D. Extra-pyramidal function
- E. Temperature

Answer: B (thalamus), to differentiate blue arrow is internal capsule



57) Which of these is the most common vascular risk factor of ischemic stroke?

- A. Hypertension
- B. Diabetes.
- C. Age
- D. Smoking
- E. Hyperlipidemia

Answer: A

58) A woman had severe headache with nausea and vomiting following an emotional stress, brain MRI was done, Most common cause:

- A. Rupture of charcot bouchard aneurysm
- B. Rupture of berry aneurysm
- C. Telangiectasias

Answer: B



59) Patient presented with an episode of right sided weakness and language disturbance, which artery is the most likely to be stenosed:

- A. Left ICA
- B. Left MCA
- C. Left ACA
- D. basilar artery
- E. Vertebral artery

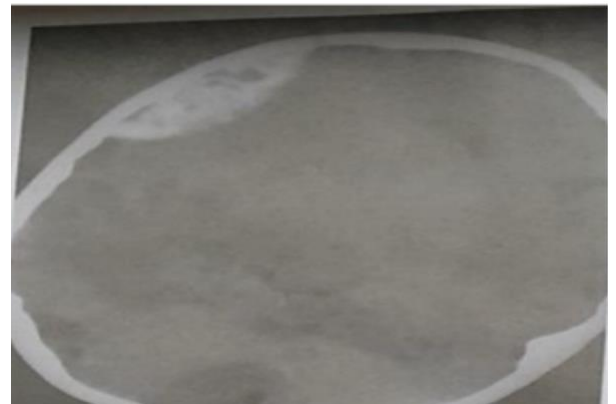
Answer: A



60) Diagnosis?

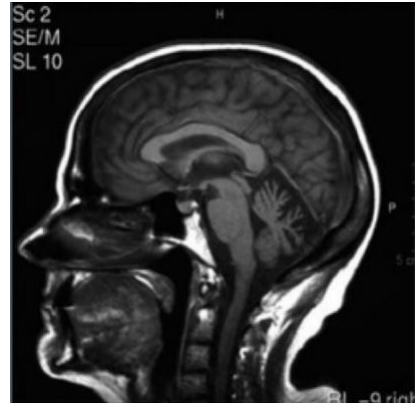
- A. Meningioma
- B. Brain metastases
- C. Right intracerebral hemorrhage
- D. Right subdural hemorrhage
- E. Right epidural hemorrhage

Answer: E



61) Which of the following is not a feature of this presentation?

- A. Wide based gait
- B. Pendular knee reflexes
- C. Decreased rapid alternating hand movement
- D. Positive romberg test
- E. Dysarthria



Answer: D (Intercerebellar hemorrhage typically does not cause a positive Romberg sign. The Romberg test assesses proprioception, which involves the dorsal columns of the spinal cord, not the cerebellum. A positive Romberg sign occurs when a person loses balance while standing with their eyes closed, indicating a problem with sensory input from the proprioceptive pathways)

Epilepsy section

Q.1 The most important factor to make a proper diagnosis of epilepsy is:

- a. Blood chemistry
- b. Proper history from patient or witness
- c. Physical examination
- d. Electroencephalogram EEG
- e. Brain MRI

b : answer

Q.2 A 27-year-old woman with complex partial seizures is well controlled on carbamazepine. Which of the following is a characteristic side effect of this medication?

- a. Thrombocytopenia
- b. Agitation
- c. Diabetes insipidus
- d. Nephrolithiasis
- e. Hyponatremia

answer : e

Carbamazepine is a Na⁺ channel blocker, it ↑GABA action.

Common adverse effects : hyponatremia, Aplastic anemia, rash & weight gain.

1st line treatment for trigeminal neuralgia.

Q.3 A 12-year-old female presents with a history of frequent staring episodes, lasting several seconds, unresponsive during which she appears. These episodes are often accompanied by difficulty concentrating and feeling 'spaced out.' What is the most likely diagnosis for this patient?

- a. focal seizure
- b. secondary generalized seizure
- c. petit mal seizure
- d. myoclonic seizure
- e. tonic clonic seizure

answer : c

Petit mal seizure also called Absence seizure, often provoked by hyperventilation. On EEG : generalized 3Hz spike-wave discharge.

Q.4 A 17-year-old male reports sudden, brief muscle jerks in his arms and legs, often occurring upon waking. These jerks do not cause loss of consciousness. What is the most proper treatment ?

- a. sodium valproate
- b. carbamazepine
- c. triptans
- d. ethosuximide.
- e. phenytoin

answer: a.

The scenario described is indicative of myoclonic seizures.

Sodium valproate is a widely used AED, **MOA:** $\uparrow\text{Na}^+$, Ca^{+2} channel inactivation, $\uparrow\text{GABA}$ concentration. **Adverse effect:** associated with Polycystic ovarian syndrome, weight gain, teratogenic, hepatic failure, aplastic anemia.

Q.5 Which of the following is not associated with temporal lobe epilepsy?

- A. stomach butterflies.
- B. deja-vu
- C. repetitive conjugate eye movements.
- D. olfactory hallucinations.
- E. fear

answer: c

Q.6 Which of the following favors true seizure over psychogenic pseudo seizure:

- A. resistance to opening the eyes
- B. head rolling from side to side
- C. rhythmic pelvic thrusting
- D. crying after episode
- E. side biting of the tongue

answer: e

Q.7 A 16-year-old girl presented with an episode of staring followed by lip smacking and picking her clothes, the episode lasted 1-2 minutes. She was completely unaware of what happened. What is the most likely diagnosis?

- A. Complex partial seizure of temporal origin.
- B. Absence 'petit mal' seizure
- C. Complex partial seizure of occipital origin
- D. Simple partial seizure of the frontal lobe
- E. Simple partial seizure of the temporal lobe

Answer : A

Complex partial seizure of temporal origin, **complex**; because the patient is unaware of what happened. **Temporal origin**; because the patient has abnormal behavior + automatism (oral/hand movement).

Q.8 About absence seizure, which of the following is true:

- A. Treated by carbamazepine
- B. Onset begins in adulthood
- C. There is a characteristic 3-Hz wave and spike on EEG
- D. Structural brain lesion on MRI
- E. Associated with poor development of the child

Answer: c

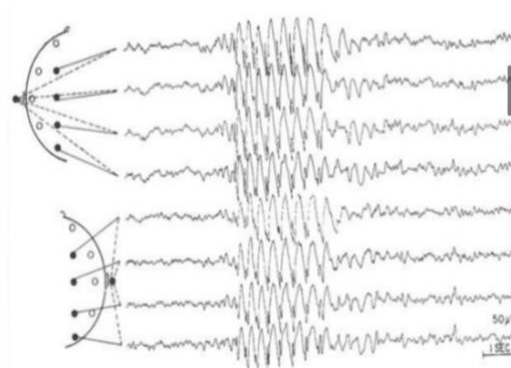
Q.9 A 16-year-old girl presents to the ER after having witnessed generalized convulsions by her mother who reported that her daughter was sleep deprived for the last 2 nights. She also reported that her daughter had frequent episodes of early morning jerks. The most likely diagnosis is:

- A. Juvenile myoclonic epilepsy
- B. Frontal lobe epilepsy
- C. Pseudo seizures
- D. Occipital lobe epilepsy
- E. Temporal lobe epilepsy

Answer : A

Q.10 Type of this seizure?

- A. myoclonic
- B. Partial
- C. Generalized
- D. grand mal
- E. Petit mal



Answer: e

Petit mal seizure/ **absence seizure** is characterized by 3Hz spike wave on EEG.

Q.11 One of the following is a wrong about differences between seizure and syncope?

- A. Posture
- B. Onset
- C. Incontinence
- D. Injury
- E. Pallor

DIFFERENCES BETWEEN SYNCOPE AND SEIZURES		
FEATURE	SYNCOPE	SEIZURE
POSTURE	ANY POSTURE	UPRIGHT
PALLOR AND SWEATING	INVARIABLE	UNCOMMON
ONSET	GRADUAL	SUDDEN/ AURA
INJURY	RARE	NOT UNCOMMON
CONVULSIVE JERKS	RARE	COMMON
INCONTINENCE	RARE	COMMON

Answer: a

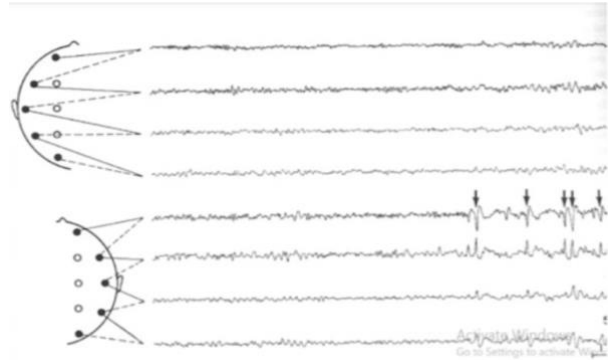
Q.12 A patient has severe, intractable epilepsy that can not be treated by surgery. Which nerve can be stimulated in an attempt to treat this patient?

- A. Left Vagus
- B. Right Vagus

Answer : a.

Wasn't mentioned in the lecture/ slides.

- Q.13 Type of this seizure?
- A. myoclonic
 - B. Partial
 - C. Generalized
 - D. grand mal
 - E. Petit mal



Answer: b

- Q.14 All of the following differences between syncope and seizures are correct except:
- A. Posture
 - B. Onset
 - C. Injury
 - D. Incontinence

DIFFERENCES BETWEEN SYNCOPE AND SEIZURES		
FEATURE	SYNCOPE	SEIZURE
POSTURE	UPRIGHT	ANY POSTURE
PALLOR AND SWEATING	INVARIABLE	UNCOMMON
ONSET	GRADUAL	SUDDEN/ AURA
INJURY	RARE	NOT UNCOMMON
CONVULSIVE JERKS	RARE	COMMON
INCONTINENCE	RARE	COMMON

Answer: d
incontinence was common in syncope & rare in seizures.

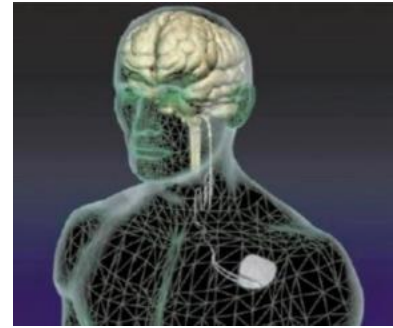
- Q.15 All of the following differences between syncope and seizures are correct except:
- A. Posture
 - B. Incontinence
 - C. Injury
 - D. Onset

DIFFERENCES BETWEEN SYNCOPE AND SEIZURES		
FEATURE	SYNCOPE	SEIZURE
POSTURE	UPRIGHT	ANY POSTURE
PALLOR AND SWEATING	INVARIABLE	UNCOMMON
ONSET	GRADUAL	SUDDEN/ AURA
INJURY	RARE	NOT UNCOMMON
CONVULSIVE JERKS	RARE	COMMON
INCONTINENCE	COMMON	RARE

Answer: b

Q.16 An epilepsy patient was drug-intractable and wasn't a candidate for surgery, which nerve can be stimulated in treatment of epilepsy?

- A. Left vagus nerve
- B. Right vagus
- C. anterior cerebral
- D. Posterior cerebral



Answer: a

Q.17 All of the following differences between

syncope & seizure are correct EXCEPT:

- A. Posture
- B. Pallor & sweating
- C. Onset
- D. Injury
- E. Convulsive jerks

<u>FEATURE</u>	<u>SYNCOPE</u>	<u>SEIZURE</u>
POSTURE	UPRIGHT	ANY POSTURE
PALLOR & SWEATING	INVARIABLE	UNCOMMON
ONSET	GRADUAL	SUDDEN/ AURA
INJURY	NOT UNCOMMON	RARE
CONVULSIVE JERKS	RARE	COMMON

Answer :d

Q.18 A 70-year-old woman has two unprovoked seizures that resolve. She is a smoker and has a history of DM and dyslipidemia. She comes to your office and her neurological exam is normal. Which procedure is not needed?

- a. CT
- b. CSF Analysis
- c. EEG

d. ECG

Answer : b

Exclude mimics, ECG before EEG.

Q.19 Surgery can be curative for which seizure?

- A. Generalized seizures
- B. Temporal lobe seizure
- C. Secondary generalized

Answer: b

While the slides didn't address this point, the book does.

Q.20. A teenage girl has a seizure during an exam. She has never had a seizure before.

She stayed

up all night to study, and her mom described abnormal jerking movements in her

daughter's

arms during breakfast that morning. What does she most likely have?

- A. Pseudo-seizures
- B. Juvenile myoclonic epilepsy
- C. Partial seizure
- D. Temporal lobe seizure.

Answer: b

Headache section

- 1- 45-year-old man with headache as in the following picture, what is the proper treatment?



- A- migraine headache
- B- Cluster headache
- C- Tension headache
- D- Sinus headache

Answer: A

- 2- What is the proper abortive treatment for the following type of headache?



- A- Verapamil
- B- Sumatriptan
- C- Oxygen
- D- Topiramate

Answer:C

- 3- Male patient with recurrent headache attacks that last for 3 hours and wakes him up from sleep, presented with a symptom seen in the picture below. What is the cause?



- A- Migraine headache
- B- Cluster headache
- C- Tension headache
- D- Sinus headache

Answer: B

- 4- Which of the following is the best preventative treatment in this type of headache?



- A- Eletriptan
- B- Oxygen
- C- Opioids
- D- Verapamil

Answer: D

5- What is the best treatment for this type of headache?

Sex	Female > male
Location	Unilateral > bilateral
Quality	Throbbing, pulsatile
Severity	Moderate to severe
Attack duration	4–72 h
Attack frequency	Variable
Autonomic features	No

- A- Sumatriptan
- B- Topiramate
- C- Venlafaxine
- D- Propranolol

Answer: A

6- What is the type of headache shown in the following figure?



- A- Migraine headache
- B- Cluster headache
- C- Tension headache
- D- Sinus headache

Answer: B

7- A 34 man with unilateral headache, eyelid edema lacrimation and runny nose, what is the first line treatment?

- A- Lithium
- B- Oxygen inhalation
- C- Topiramate
- D- Verapamil

Answer: B

8- Patient was diagnosed with cluster headache, what is the 1st line drug prevention therapy?

- A- Opioids
- B- Glucocorticoids
- C- Verapamil
- D- Oxygen

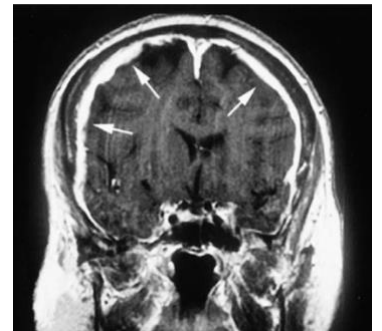
Answer: C

9- Sumatriptan is a:

- A- 5HT 1D antagonist
- B- 5HT 1B/1D agonist
- C- 5HT 2B agonist

Answer: B

10- Female with headache that increase upon standing up and decrease upon lying down, undergone LP sometime ago, what does she have?



- A- Intracranial hypertension
- B- Intracranial hypotension
- C- Encephalitis
- D- Sarcoidosis

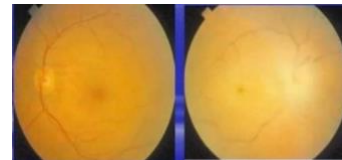
Answer: B

11- A sensitive test to assess for possible temporal arteritis as a cause of headache in elderly is:

- A- Complete blood count CBC
- B- Brain MRI
- C- Electroencephalogram EEG
- D- Erythrocyte sedimentation rate ESR
- E- Brain CT scan

Answer: D

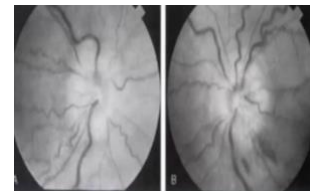
12- A typical case of Giant cell arteritis with pallor of optic disk, what is the most appropriate next step?



- A- ESR
- B- Lumbar puncture
- C- Biopsy
- D- MRI

Answer: A

- A young obese woman (BMI=39) with a normal CT & neurological exam presents with diffuse early morning headache that increases with coughing & exertion.



Use these info to answer question (no.13,14&15)

13-What is the next step for this patient?

- A- Lumbar puncher
- B- CRP

C- Angiogram

D- EEG

Answer: A

14-Which of the following CSF findings is NOT consistent with the diagnosis of idiopathic intracranial hypertension?

A- CSF is clear

B- Intracranial pressure of 55cm

C- Most of the cells are lymphocytes

D- WBC <5 cells/ L

E- High CSF protein

Answer: E

15-Which of the following nerves can be damaged in this patient?

A- 6th cranial nerve

B- 8th cranial nerve

C- 9th cranial nerve

D- 11th cranial nerve

Answer: A

16-All the following characteristics suggest a secondary cause of headache that needs to be evaluated by neuroimaging or other procedures EXCEPT:

A- New onset seizures with the headache

B- New headache which is sudden and severe

C- Fever

D- Similar previous attacks

E- Blurred vision

Answer: D

17-A patient presented with headache; she has pain while trying to comb her hair, and an elevated ESR. What is the appropriate initial management?

Answer: corticosteroids

18-Which of the statements regarding headaches is incorrect?

Answer: hypotension headache worsens upon lying down (in bed)

19-What is the most common cause of secondary headache?

- A- Malignancy
- B- Head trauma
- C- SAH
- D- Systemic infection

Answer: D

20-Treatment for “trigeminal neuralgia”:

- A- Carbamazepine
- B- Ibuprofen
- C- Corticosteroid

Answer: A

21-All of the following drugs are used in prophylaxis of migraine except:

- A- Valproate
- B- Ibuprofen
- C- Flunarizine
- D- Verapamil
- E- Amitriptyline

Answer: B

22-Which statement is wrong about Giant cell arteritis:

Answer: tx is not initiated until biopsy confirmation

23-Which of the following sentences is true regarding giant cell arteritis:

A- Amaurosis fugax is ominous symptom

B- It may be associated with fibromyalgia

C- More common on men

Answer: A

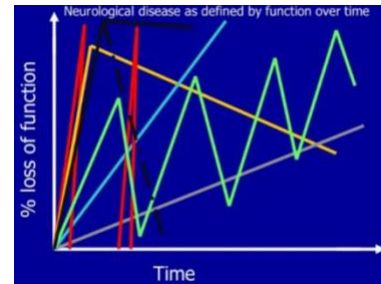
24-All can cause trigeminal neuralgia except:

Answer: middle cerebral artery stroke

Multiple sclerosis section

1- The green line represents:

- A- Brain tumor (high grade)
- B- MS
- C- Epilepsy
- D- AD
- E- Stroke

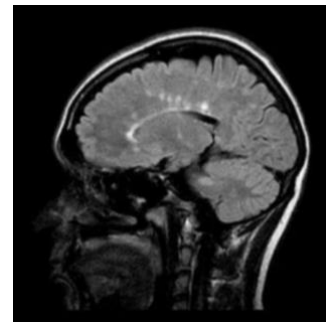


Answer: B

(Red=epilepsy, blue=brain tumour, yellow=stroke, grey=AD)

2- This represents:

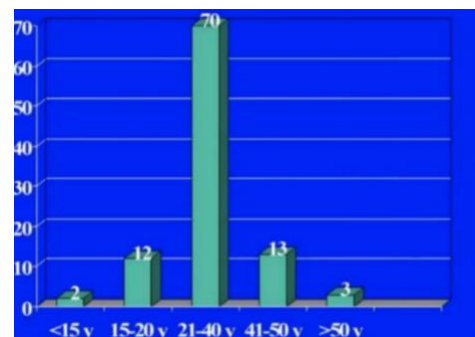
- A- SLE
- B- MS
- C- Brain abscess
- D- Sarcoidosis



Answer: B

3- This figure represents age distribution for which neurological condition?

- A- Epilepsy
- B- Stroke
- C- Ms
- D- Dementia
- E- Meningitis



Answer: C

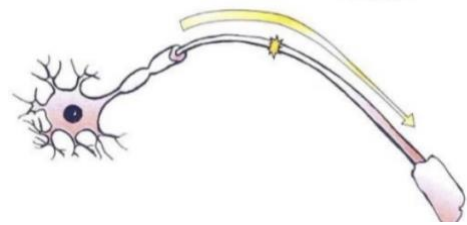
4- A 25-year-old lady is present in your clinic complaining from weakness in her left side. One year ago, she had ocular disturbances. Given the image shown here, this patient probably has:



- A- Vascular Dementia
- B- Syringomyelia
- C- Multiple Sclerosis

Answer: C

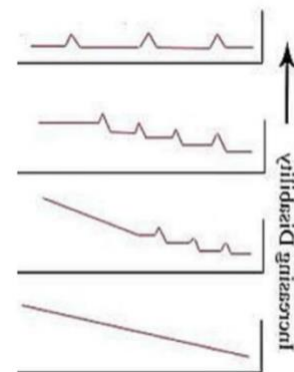
5- Which of the following cells are responsible for creating the myelin lost in the demyelinating disease MS?



- A- Schwann cells
- B- Astrocytes
- C- Oligodendrocytes
- D- Microglia

Answer: C

6- A 24-year-old patient presents with visual disturbance and eye pain. 6 months ago she had right hemiparesis that resolved within two weeks. What does she most likely have? (Pic may not be the same as the one in the exam)



- A- Primary progressive multiple sclerosis
- B- Secondary progressive multiple sclerosis
- C- Relapsing remitting multiple sclerosis

Answer: C

7- One of the following is NOT associated with EARLY manifestations of MS:

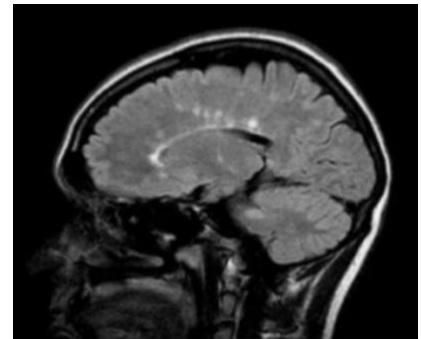
- A- Tingling and numbness
- B- Weakness or fatigue
- C- Dizziness
- D- Generalized tonic-clonic seizures

Answer: D

8- A 24-year-old female came to the clinic complaining of weakness in her left side. One year ago, she had ocular disturbances. You should do all of the following tests EXCEPT:

- A- Urinary incontinence
- B- Oligoclonal antibodies
- C- Visual evoked potential
- D- EEG
- E- Cervical spine MRI

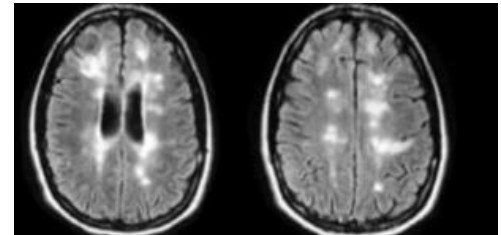
Answer: D



9- Patient presented with inability to adduct right eye and nystagmus in left eye.

- A- Multiple sclerosis
- B- ICP

Answer: A



10- Which of the following vitamins plays an important role regarding pathogenesis and treatment of patients with multiple sclerosis?

- A- Vitamin A
- B- Vitamin D
- C- Vitamin C
- D- Vitamin B12
- E- Vitamin k

Answer: B

11-A 45-year-old female patient was admitted to hospital Because of progressive history of dorsal pain paraparesis and lower limb hypoesthesia of two years duration.the most likely diagnosis is:

- A- Spinal neurofibroma
- B- Spinal epidural breast metastasis
- C- Transverse myelitis
- D- Spinal meningioma
- E- Spinal arteriovenous malformation

Answer: C

12- All of the following are presenting clinical features of patients with MS EXCEPT:

- A- Monocular visual loss
- B- Broca's aphasia
- C- Ataxia
- D- Paraparesis (bilateral lower limb weakness)
- E- Electrical like feeling in the back upon flexion of the neck

Answer: B

13-Urge incontinence in a patient with MS is due

Answer: spastic bladder

14-Which of the following is not seen in MS?

Answer: fasciculations

15-All of the following are commonly associated with MS except:

Answer: homonymous hemianopia

16- Which of the following is True about multiple sclerosis (MS)?

- A- It is more common in the tropical area near to the equator
- B- It is more common in the elderly population
- C- It is related to inflammatory process that start in the CNS myelin
- D- It is primarily a disease of the grey matter of the central nervous system
- E- It has been associated with vitamin E deficiency

Answer: C

17- Lady had symptoms of optic neuritis a year ago, now presents with spinal cord symptoms with the following spinal cord MRI, what is the diagnosis?



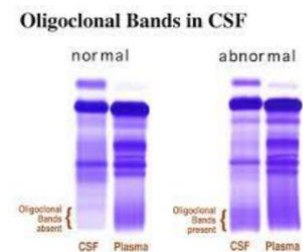
Answer Multiple sclerosis

18-40-year-old man suffered from acute loss of vision one year ago and now presents with two-week history of bilateral weakness. He also had history of arthritis and oral ulcers. What is the diagnosis?

- A- Multiple sclerosis
- B- Acute disseminated encephalomyelitis
- C- Neuro-bahcet disease
- D- Neuromyelitis optica

Answer: C

19-Patient found to have an oligoclonal antibody bands in CSF, what is their cause?



- A- B lymphocytes in CSF
- B- T lymphocytes in CSF
- C- Intrathecal IgG production

Answer: C

20- Which of the following symptoms is not caused by the following lesion?

- A- Cape like loss of sensation
- B- Bilateral Babinski sign
- C- Sphincter dysfunction

Answer: A



21- Which of the following is environmental factor most associated with MS?

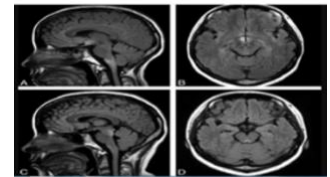
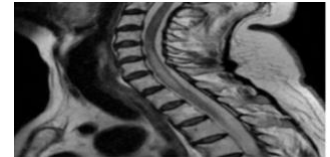
- A- Vitamin D deficiency
- B- Low exposure to sunlight
- C- Smoking
- D- EBV
- E- High salt intake

Answer: D

22-30 years old female pt presented with upper and lower limb weakness, 1 year ago she had an attack of impaired vision, what is your diagnosis?

- A- Multiple sclerosis
- B- Acute disseminated encephalomyelitis
- C- Neuro-bahcet disease
- D- Neuromyelitis optica

Answer: D



23- A 23 years old woman presented with 2 or 3 weeks of pain in her eye and decreased visual acuity, brain MRI was done, the diagnosis is MS. Which of the following is likely to be seen in multiple sclerosis:

- A- Normal protein level
- B- Matched CSF and serum Immunoglobulin IgG
- C- Low glucose level

D- High lactate level

Answer: B

24-The drug is commonly used to treat an acute attack of multiple sclerosis is:

A- Corticosteroid

B- Natalizumab

C- Alemtuzumab

D- Fingolimod

E- Interferon beta

Answer: A

25-A 56-year-old male who sustained a road traffic accident presented to emergency department with neck pain and left sided body weakness. Physical examination reveals lost positional sensation on the left side with impaired pain and temperature sensation on the right side of his body, this clinical picture fits with:

A- Anterior cord syndrome

B- Brown-sequard syndrome

C- Complete spinal cord injury

D- Posterior cord syndrome

E- Central cord syndrome

Answer: B

26-About multiple sclerosis pattern which is most sensitive test:

A- MRI

B- CSF for protein ,cells and glucose

C- Visual evoked potentials

(Note: to detect oligoclonal bands, which requires gel electrophoresis, you need to specify that)

Answer: A

Movement disorders

Q.1 A 65-year-old woman was treated for Parkinson's disease with pramipexole.

What is this drug's mechanism of action?

- A. Dopamine agonist
- B. Dopamine precursor
- C. Dopamine release stimulator
- D. Dopamine reuptake blocker
- E. Monoamine oxidase B inhibitor

Answer: A

Q.3 A 78-year-old woman with dementia and rigidity is hospitalized with dehydration. During her hospitalization, she becomes agitated and has prominent visual hallucinations. After a dose of haloperidol, she becomes very rigid and mute. The most likely type of dementia in this patient?

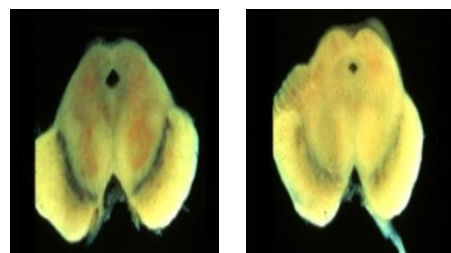
- A. Alzheimer disease (AD)
- B. Parkinson disease (PD)
- C. Dementia with Lewy bodies
- D. Pick disease
- E. Vascular dementia

Answer :C

Q.3 The changes seen in the right-side figure (diseased) compared to the left side figure (normal) is due to loss of:

Select one:

- A. Cholinergic neurons



- B. Adrenergic neurons
- C. Serotonergic neurons
- D. Dopaminergic neurons

Answer: D

Q.4 This posture is feature of which disease:
Select one:

- A. Huntington disease
- B. Alzheimer's disease
- C. Parkinson's disease
- D. Progressive supranuclear palsy
- E. Wilson's disease



Answer: C

Q.5 This posture is feature of which disease:
Select one:

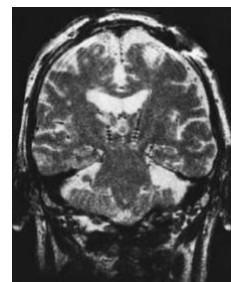
- A. Huntington disease
- B. Alzheimer's disease
- C. Parkinson's disease
- D. Progressive supranuclear palsy
- E. Wilson's disease



Answer: C

Q.6 Stimulation of which of the following is used to treat severe Parkinson's:

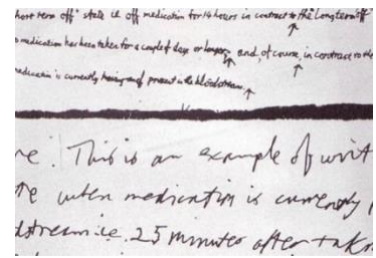
- A. Subthalamic nucleus
- B. Putamen
- C. Caudate
- D. Substantia nigra



Answer: A

Q.7 What disease is related to the following image:

- A. Alzheimer
- B. Parkinson
- C. MS
- D. CIDP

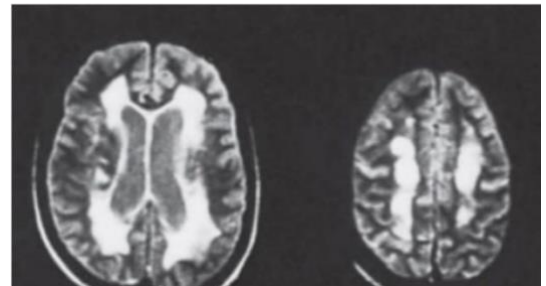


Answer: b

Micrographia (small handwriting) is a characteristic feature of Parkinson's patients (FA).

Q.8 What does this image show?

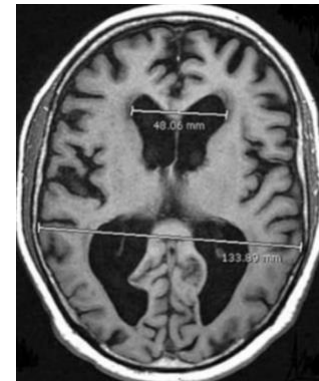
- A. Brain hemorrhage
- B. Brain tumor
- C. Vascular Dementia
- D. Hydrocephalus



Answer: c

Q.9 A 72-year-old man presents with progressive loss of cognitive function, gait difficulty, and urinary incontinence. A brain MRI was done. What is the most probable diagnosis?

- A. Frontotemporal dementia
- B. Vascular dementia
- C. Normal pressure hydrocephalus

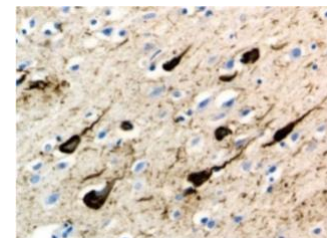


Answer: c

It wasn't mentioned in 2024 slides.

Q.10 19-These neurofibrillary tangles are present in which disease?

- A. Alzheimer
- B. Parkinson
- C. Frontotemporal dementia



Answer: a

Q.11 A patient has idiopathic Parkinson's, which of the following is not associated with it :

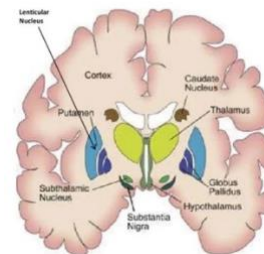
- A. Bradykinesia
- B. Tremor
- C. Rigidity
- D. Falls early in the disease course



Answer: d

Q.12 Which of the following is damaged in Huntington's disease ?

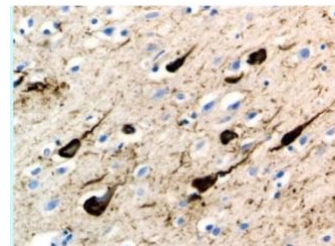
- A. sub-thalamic nucleus
- B. Caudate nucleus
- C. Putamen
- D. GP
- E. Substantia Nigra



Answer: b

Q.13 What is the main component in Neurofibrillary Tangles:

- A. hyperphosphorylated tau protein
- B. Beta-amyloid



Answer: a

Q.14 The gait seen in the picture on the right is known as:

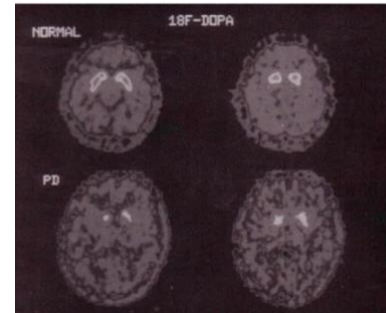
- A. Waddling gait
- B. Shuffling gait
- C. Ataxic gait
- D. Circumductory gait
- E. Spastic gait



Answer: b

Q.15 5-Which neurotransmitter is affected in this case?

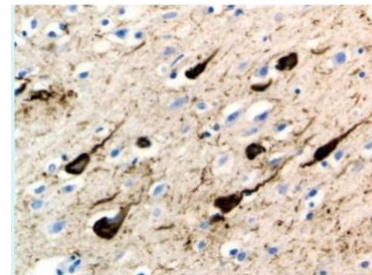
- A. Dopamine
- B. ACh
- C. GABA
- D. Serotonin



Answer: a

Q.16 One of the following is correct about this disease :

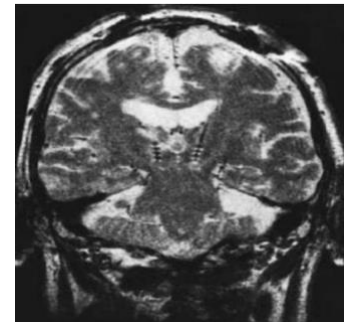
- A. Is the second most common cause of dementia.
- B. Affect young age more than old age
- C. Females are more affected than males



Answer: c

Q.17 This image represents stimulation of which of the following to treat severe Parkinson's disease?

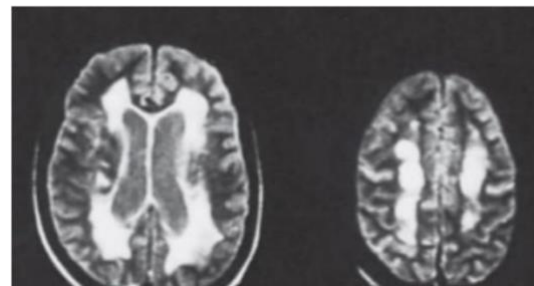
- A. Caudate
- B. Putamen
- C. Subthalamic nuclei
- D. Globus pallidus interna
- E. Globus pallidus externa



Answer: c

Q.18 What does this MRI show?

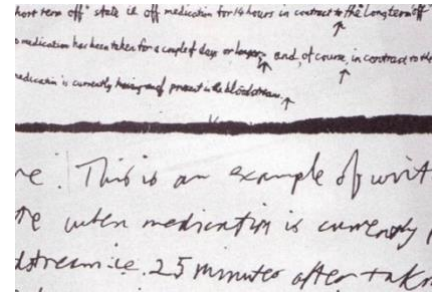
- a. Vascular dementia
- b. Normal pressure hydrocephalus
- c. Brain tumour
- d. Brain hemorrhage
- e. Subarachnoid hemorrhage



Answer: A

Q.19 A patient came to the clinic with the following handwriting (above). Which of the following feature ISN'T seen in patients with this disease?

- A. Unilateral tremor
- B. Bradykinesia
- C. Festinating gait
- D. Masked face
- E. Spasticity

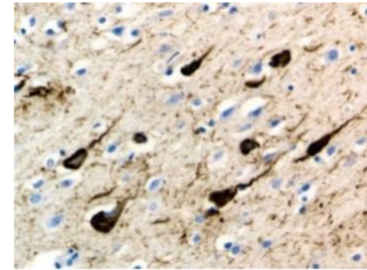


Answer: e

Micrographia is a typical feature of parkinson's disease.

Q.20 All of the following are true regarding the Neurofibrillary Tangles except:

- a. causes Alzheimer disease
- b. found in other neurodegenerative disorders
- c. dose not respond to acetylcholine esterase inhibitors
- d. found in Parkinson's
- e. can be detected in the CSF of Alzheimer patients

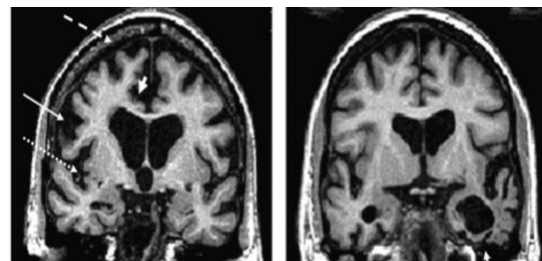


Answer: d

Additional-

Q.1 All of the following are features of a patient with the presented CT, except:

- A. Personality changes.



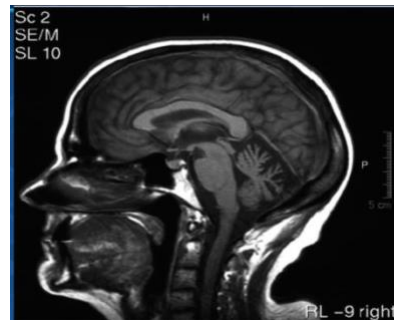
- B. Ataxia
- C. Impaired handling of complex tasks.

Answer: b

Frontotemporal lobar degeneration.

Q.2 the following CT represent a patient with:

- A. Vascular dementia
- B. Alzheimer's disease
- C. Ataxia
- D. Huntington's disease.



Answer: c

Q.3 write down :

- A. What is the sign?
- B. Related to which disease?
- C. What is the pattern of inheritance?



Answers :

- a. Kayser-Fleisher Rings
- b. Wilson's disease.

c. Autosomal recessive.

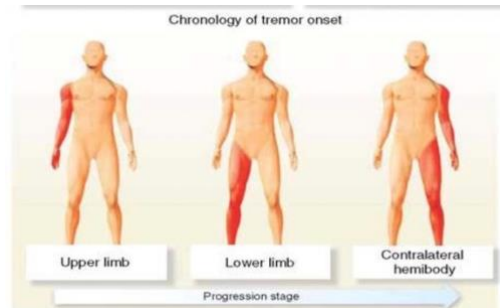
A. the following figure describes a unique feature of dystonia, mention it



Answer :

Geste antagoniste

B. what's the disease associated with the following tremor ?



Answer:

Parkinson's disease.

