بسم الله الرحمن الرحيم

Past Papers

MID | Lectures (1-6)

﴿إِنِّي تَوَكَّلْتُ عَلَى اللَّهِ رَبِّي وَرَبِّكُمْ ۚ مَّا مِن دَابَّةٍ إِلَّا هُوَ آخِذٌ بِنَاصِيَتِهَا ۚ إِنَّ رَبِّي عَلَىٰ صِرَاطٍ مُّسْتَقِيمٍ﴾

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PATHOLOGY

قبل ما تبلشوا احكوا بسم الله، واحمدوا ربنا على نعمة الصحة والعافية

{ الحمد لله الذي عافانا مما ابتلي به غيرنا وفضّلنا على كثيرٍ ممن خلق تفضيلا }

Lec 1: Diseases of Myelin

Q1: Which of the following combinations is correct?

A) IL-2 receptor polymorphism and better outcome of MS.

B) Central pontine myelinolysis and predominance of sensory symptoms.

C) Acute disseminating encephalomyelitis and viral infection of oligodendrocytes.

D) Neuromyelitis optica and cellular autoimmune myelin destruction affecting optic nerve and spinal cord.

E) Quiescent Plaques in MS and astrocyte proliferation.

Ans: E

Q2: Choose the incorrect combination:

A) Guillain-Barre syndrome and viral infection.

B) Multiple sclerosis and gray matter plaques.

C) Central pontine myelinolysis and rapid correction of hyponatremia.

D) Amyloid angiopathy and brain hemorrhage.

E) Neuromyelitis Optica and humoral immunity.

Ans: B

Q3: Which of the following is incorrect regarding Multiple Sclerosis?

A) T-helper 17 plays a major role in its pathogenesis.

B) Oligoclonal bands are used as a diagnostic tests.

C) Secondary axonal damage can be permanent.

D) Quiescent plaques show inflammation and Myelin destruction.

E) The disease is commoner in females.

Ans: D

Q4: Choose the INCORRECT statement regarding multiple sclerosis (MS):

A) Axonal damage occurs late in the disease process.

B) The disease is caused by loss of immune tolerance to a myelin protein.

C) Characterized by gray matter plaques separated in time and space.

D) T-helper cells play a major role in MS pathogenesis.

E) Patients have more IgG in their CSF than in the serum.

Ans: C

Q5: The following combinations are true except:

A) Multiple sclerosis and oligoclonal bands.

B) Central pontine myelinolysis and rapid correction of hyponatremia.

C) Quiescent plaques in multiple sclerosis and gliosis.

D) Neuromylitis optica and aquaporin 4 antibodies.

E) Multiple sclerosis and gray matter plaques.

Ans: E

Q6: Wrong about MS:

A) Immune-mediated destruction of myelin.

B) It affects both peripheral and central nerves.

Ans: B

Q7: Which of the following statements is incorrect regarding peripheral neuropathies?

A) The most common cause of generalized peripheral neuropathy is diabetic neuropathy.

B) Ischemia is thought to play a role in the pathogenesis of diabetic neuropathy.

C) Guillian-Barre syndrome is a neuropathy, characterized by an acute, asymmetric, descending muscle weakness.

D) Chronic inflammatory demyelinating polyneuropathy occurs in association with autoimmune diseases and AIDS patients.

Ans: C

Q8: All of the following statements are correct regarding diabetic neuropathy except:

A) Autonomic nerves are never affected.

B) Is the most common cause of peripheral neuropathy.

C) Distal symmetric sensiomotor polyneuropathy is the most common form of diabetic neuropathy.

D) Can be mononeuropathic (affecting one nerve).

Ans: A

Q9: Which of the following is not a feature of Gullian-Barre syndrome?

A) Respiratory failure is a possible complication.

B) Asymmetrical paralysis.

C) Acute onset after immunization or infection.

D) Muscle weakness starts distally then progresses proximally.

E) The neuropathy resolves within 4 weeks.

Ans: B

Q10: Choose the correct combination:

A) Acute disseminating encephalitis and full recovery in survivals.

B) Central pontine myelinolysis and sudden change in osmotic pressure.

C) Diabetic neuropathy and sensory symptoms in the feet and hands.

D) All are correct.

Ans: D

Q11: Choose the incorrect combination:

A) Gemistocytes and repair.

B) Red neurons and loss of Nissl substance.**

C) Rod cells and microglia. **

D) Oligodendrocytes and peripheral nervous system myelin production.

E) Lewy bodies and Parkinson disease.

Ans: D

Q12: Symmetrical ascending motor weakness, areflexia, and mild-to-moderate sensory abnormalities are likely to occur following an infection with one of the following pathogens:

A) Streptococcus pneumoniae

B) Escherichia coli

C) Clostridium botulinum

D) Campylobacter jejuni

E) Herpes simplex type-1 virus

Ans: D

Q13: A 33-year-old healthy man underwent a surgical operation, after which he started having symmetric muscle weakness in the legs followed by arm weakness. The symptoms resolved within 4 weeks. This patient most likely had:

A) Chronic inflammatory demyelinating polyneuropathy

B) An attack of multiple sclerosis

C) Central pontine myelinolysis

D) Guillian-Barre syndrome

E) Distal symmetric sensiomotor polyneuropathy

Ans: D

Q14: Which of the following is considered a clinical feature of Guillian-Barre syndrome?

A) Hyperreflexia

B) Asymmetrical muscle weakness

C) Respiratory failure

D) Rapid onset of unilateral limb paralysis

Ans: C

Lec 2: Intracranial Hemorrhage

Q1: Which of the following is not characteristic of epidural hemorrhage?

A) Usually not associated with a fracture.

B) Usually middle meningeal artery is torn.

C) Blood accumulate under arterial pressure and dissects the Dura.

D) Biconvex shape on CT scan.

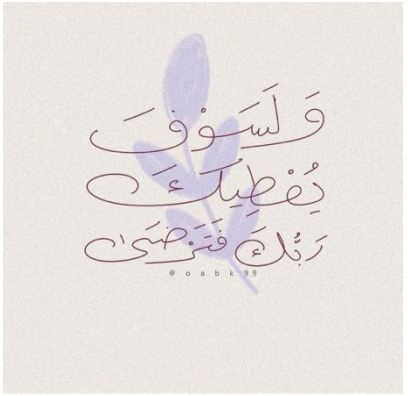
E) Brain parenchyma is compressed by the bleeding.

Ans: A

Q2: The most common cause of brain hemorrhage is hypertension.

A) True

B) False



Ans: A

Q3: The main cause of vessels weakness in hypertension is:

A) Hyaline arteriolosclerosis

B) Edema

C) Berry aneurysms

Ans: A

Q4: In epidural hematoma, usually the middle meningeal artery is torn.

A) True

B) False

Ans: A

Q5: A 66-year-old lady suffered from severe headache. Her radiological imaging revealed an intracerebral hemorrhage. Her past medical history included hypertension and longstanding bronchiectasis. Her brain hemorrhage is least likely caused by:

A) Ruptured aneurysm

B) Amyloid angiopathy

C) Complication of hyaline arteriolosclerosis

D) Autoimmune arteritis

E) Primary brain hemorrhage

Ans: D

Q6: It affects both peripheral and central nerves.

A) MS

B) Hypertension

Ans: B

Q7: Choose the incorrect statement regarding epidural hematoma:

A) The accumulated blood is arterial in origin.

B) Blood accumulates between the dura and the skull.

C) Associated with skull fracture

D) Bleeding appears crescentic in shape on CT scan.

E) Caused by ruptured middle meningeal artery.

Ans: D

Q8: Which of the following is not a feature of epidural hematoma?

A) Almost always due to trauma.

B) Associated with skull fractures.

C) Hemorrhage caused by bridging veins tear.

D) Brain parenchyma is compressed.

E) Appears as biconvex shape with CT scan.

Ans: C

Q9: Epidural hematoma results from injury to:

A) Middle cerebral artery.

B) Bridging veins.

C) Middle meningeal artery.

Ans: C

Q10: The source of blood in the subdural hematoma is:

A) Middle cerebral artery.

B) Bridging veins.

C) Middle meningeal artery.

D) Basilar artery.

E) Anterior cerebral artery.

Ans: B

Q11: Which of the following is wrong about berry aneurysms:

A) Berry aneurysm causes subdural hematoma.

B) Berry aneurysms mostly arise form the posterior circulation.

C) Berry aneurysms are considered thin-walled outpouching of an artery.

D) Survivors have a risk of recurrent bleeding.

E) Rupture happens usually due to increased intracranial pressure.

Ans: A + B

Lec 3: Stroke and Increased ICP

Q1: A 67-year-old lady complained of sudden weakness in her right arm followed by slurred speech and facial asymmetry, No hemorrhage was seen on a CT scan. The most common cause of her symptoms is:

A) Thrombotic occlusion of the middle cerebral artery.

B) Embolic occlusion of the middle cerebral artery.

C) Embolic occlusion of the middle meningeal artery.

D) Thrombotic occlusion of the middle meningeal artery.

E) Paradoxical embolus.

Ans: B

Q2: A 54-year-old man complained of severe headache and vomiting, imaging studies showed a large subdural hematoma. Two days later he had dilated pupil of the right eye with his visual acuity decreased. Which of the following is incorrect about his condition?

A) Can be complicated by hemorrhage in the pons.

B) His eye symptoms could be related to ischemic injury to the visual cortex.

C) The medial aspect of the temporal lobe is compressed against the free margin of the tentorium.

D) The dilated pupil indicated damage of the left third cranial nerve.

E) He might develop fetal brainstem complications.

Ans: D

Q3: Which of the following statements is incorrect regarding stroke?

A) Occlusion of the middle cerebral artery is the most common cause of strokes.

B) Ischemic stroke results in liquefactive necrosis.

C) Hemorrhagic strokes can result as a complication of hypertension.

D) TIA (transient ischemic attack) can precede full blown ischemic stroke and hence should be treated promptly.

E) Thrombotic strokes are commoner than embolic strokes.

Ans: E

Q4: Which of the following is not a complication of transtentorial herniation?

A) Duret hemorrhage

B) Ischemia of the visual cortex

C) Third cranial nerve compression

D) Compression of the anterior cerebral artery

E) Impaired ocular movement on the side of the lesion

Ans: D

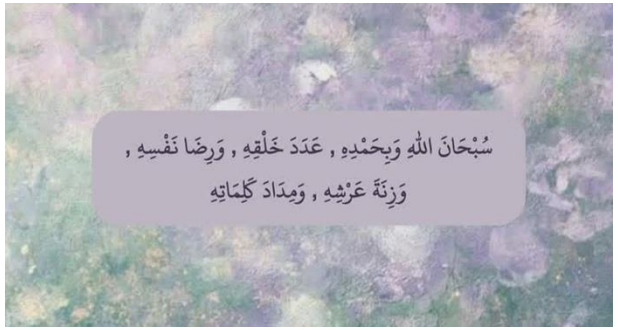
Q5: Choose the correct statement regarding red neurons:

A) Their nuclei are small and hyperchromatic.

B) They are characterized by increased cytoplasmic endoplasmic reticulum.

C) Their dendrites are the main component of gliosis.

D) They are seen in multiple sclerosis quiescent plaques.



Ans: A

Q6: The most common site of embolic obstruction:

A) Middle cerebral artery.

B) Anterior cerebral artery.

C) Basilar artery.

D) Middle meningeal artery.

E) Posterior meningeal artery.

Ans: A

Q7: Which of the following is a fetal complication of transtentorial herniation?

A) Duret hemorrhage

B) Compressed anterior cerebral artery

C) Compressed posterior cerebral artery

D) Compression of the oculomotor nerve

E) All of the above

Ans: A (C&D are not fetal)

Q8: All of the following are complications of transtentorial herniation except:

A) Duret hemorrhage

B) Impaired ocular movement

C) Linear bleeding in the midbrain

D) Compression of the anterior cerebral artery

E) Ischemic injury to the visual cortex

Ans: D

Q9: Wrong about brain herniation:

A) Tonsillar herniation causes brainstem compression.

B) Herniation is a complication of brain edema.

C) Cingulate gyrus herniates in transtentorial herniations.

Ans: C

Lec 4: Neurodegenerative Diseases 1

Q1. Alzheimer's, which one is correct:

A. Plaques: amyloid precursor protein

B. Tangles: extracellular

C. AB proteins in down syndrome: increased level of beta secretase

D. None of the above

Ans: A

Q2. Which of the following statements is correct regarding the pathogenesis of Alzheimer's disease?

A) A key step in its pathogenesis is intracellular accumulation of AB amyloid within cortical neurons.

B) AB protein accumulates earlier in patients with Down syndrome because these patients have an increased level of beta secretase.

C) Intracellular accumulation of Tau protein occurs early in the disease process.

D) Amyloid plaques and Tau accumulation can be seen due to advanced age, even in people not suffering from Alzheimer's disease.

E) Polymorphisms of Apolipoprotein E (Apo E) increase the risk of Alzheimer disease.

Ans: D

Q3. Which of the following is incorrect about amyloid accumulation in the brain:

A) Forms extracellular plaques

B) Causes hyper phosphorylation of Tau protein

C) Accumulation in the elderly is not necessarily associated with dementia

D) Increased risk of accumulation in people with Down syndrome

E) Is the main protein responsible for Pick disease

Ans: E

Q4. All of the following is correct regarding neurodegenerative disorders EXCEPT:

A) Neuritic plaques consist of amyloids surrounded by dystrophic neurites

B) Neurofibrillary tangles contain tau protein

C) Deposition of AB amyloids in the cerebral cortex in the case of Alzheimer's disease

D) Intranuclear aggregates containing an expanded polyglutamine tract in Huntington's Disease

E) A + B

Ans: C

I think the choices are written incorrectly in the old files, but the answer given is C ☺

Q5. Pick's disease is due to:

A) Deposition of synuclein protein

B) FTLD-tau protein inclusion bodies

C) Huntingtin protein deposition

D) FTLD-TDP43 protein inclusion bodies

E) Mutations in SOD-1 gene

Ans: B

Q6. Which of the following is incorrect about amyloid accumulation in the brain:

A) Can be part of the normal aging process

B) Forms extracellular plaques

C) Causes secondary hyper phosphorylation of Tau protein

D) Increased risk of accumulation in people with Down syndrome is due to deranged beta secretase levels

E) If associated with neurofibrillary tangles it points towards a diagnosis of Alzheimer disease.

Ans: D

Q7. Wrong about neurofibrillary tangles:

A) They are composed mainly of hyperphosphorylated tau protein

B) They are intracellular aggregates found within neurons

C) They are seen in several neurodegenerative disorders

D) They are specific only to Alzheimer's disease

E) They are associated with neuronal degeneration

Ans: D

Q8. Enzymes associated with Alzheimer's disease include:

A) Alpha synuclein

B) Beta secretase

C) Microglial enzymes

D) Alzheimer's enzyme

Ans: B

Q9. Which of the following cells is destroyed in Alzheimer's disease?

A) Astrocytes

B) Glial cells

C) Neurons

D) Oligodendrocytes

E) Microglia

Ans: C

Lec 5: Neurodegenerative Diseases 2

Q1. Intracytoplasmic eosinophilic round to elongated inclusions that have a dense core surrounded by a pale halo which are positive with immunohistochemical stain to α-synuclein are characteristic of:

A) Parkinson disease

B) Huntington chorea

C) Alzheimer

D) Spinocerebellar ataxia

E) Amyotrophic lateral sclerosis

Ans: A

Q2. Intranuclear inclusions are seen in which of the following:

A) Parkinson disease

B) Alzheimer disease

C) Huntington disease

D) Creutzfeldt-Jakob disease

E) Multiple sclerosis

Ans: C

Q3. A *67*-year-old male presents with tremors, rigidity, and slow movement with stooped posture and diminished facial expressions. He has no cognitive impairment. All the following play a role in his disease EXCEPT:

A) Accumulation of alpha synuclein

B) Accumulation of protein that acts as a prion protein

C) Lewy bodies

D) Loss of pigmented neurons in substantia nigra

E) Accumulation of a protein important for long term memory storage

Ans: E

Q4. A 67-year-old male presents with tremors, rigidity, and slow movement. You notice that he had stooped posture and diminished facial expressions. He seems to have good cognitive function and no memory loss. Which of the following plays a role in his disease?

A) Intranuclear protein accumulation

B) A trinucleotide repeat mutation

C) Accumulation of a protein important for long term memory

D) Loss of pigmented neurons in mammillary bodies

E) Accumulation of protein that acts as a prion protein

Ans: E

Q6. Wrong about Huntington's disease:

A) Autosomal dominant disorder

B) Caused by CAG trinucleotide repeat expansion

C) Associated with degeneration of caudate nucleus

D) Leads to hyperkinetic movements (chorea)

E) Caused by mutation in α-synuclein gene

Ans: E

Lec 6: Neurodegenerative Diseases 3

Q1. Which of the following is caused by a trinucleotide repeat mutation?

A) Amyotrophic lateral sclerosis

B) Friedreich ataxia

C) Multiple sclerosis

D) Myasthenia gravis

E) Alzheimer disease

Ans: B

Q2. Which of the following is correct regarding Friedrich ataxia?

A) Autosomal dominant disorder

B) Caused by degeneration of cerebellar Purkinje cells

C) Associated with cardiomyopathy

D) Caused by deposition of amyloid protein

E) Caused by α-synuclein accumulation

Ans: C

Q3. Fredrick ataxia is an autosomal recessive ataxia caused by:

A) Mutation in SOD1 gene

B) Mutation in frataxin gene

C) Mutation in APP gene

D) Mutation in α-synuclein gene

E) Mutation in presenilin gene

Ans: B

Q4. Patient with unsteady gait and cardiac abnormalities:

A) Huntington disease

B) Friedreich ataxia

C) Parkinson disease

D) Alzheimer disease

E) ALS

Ans: B

Q5. A patient suffers from ataxia and kyphoscoliosis with a high risk to develop cardiac disease. What is the most likely the diagnosis?

A) Multiple sclerosis

B) Parkinson disease

C) Friedreich ataxia

D) Huntington disease

E) ALS

Ans: C

Q6. Patient with unsteady gait (ataxic) with cardiac abnormalities?

A) Parkinson disease

B) Huntington disease

C) Friedreich ataxia

D) Alzheimer disease

E) Multiple sclerosis

Ans: C

Sorry that all the Past Qs were only about Friedreich ataxia , here's some **TEST BANK**

additional MCQs

Q7. Which of the following is incorrect regarding Ataxia-telangiectasia ?

A) It is inherited in an autosomal recessive manner

B) It is associated with immunodeficiency

C) Telangiectasia may appear in conjunctiva and skin

D) It results from mutation in the ATM gene

E) It commonly presents first with severe dementia

Ans: E

Q8. All of the following are clinical manifestations of ALS EXCEPT:

A) Fasciculations

B) Muscle atrophy

C) Hyperreflexia

D) Loss of sensation

E) Progressive muscle weakness

Ans: D

Q9. Choose the mismatched pair:

A) ALS — degeneration of upper and lower motor neurons

B) Ataxia-telangiectasia — ATM gene mutation

C) Spinocerebellar ataxia — autosomal dominant inheritance

D) SMA — SMN1 gene mutation

E) ALS — primary degeneration of cerebellar Purkinje cells

Ans: E

Q10. Which of the following statements regarding spinal muscular atrophy (SMA) is INCORRECT?

A) It results from mutation of the SMN1 gene

B) It leads to loss of lower motor neurons

C) It produces progressive muscle weakness

D) It usually begins in late adulthood

E) Severe forms may present during infancy

Ans: D

الحمد لله

اللهم إني أستودعك ما قرأت وما حفظت وما تعلمت، فرده إلي عند حاجتي إليه، إنك على كل شيء قدير

اللهم أدخلني مدخل صدق، وأخرجني مخرج صدق، واجعل لي من لدنك سلطانًا نصيرًا

ربِّ اشرح لي صدري، ويسر لي أمري، واحلل عقدة لساني، يفقهوا قولي، باسم الله الفتاح

لا تنسونا من صالح دعائكم بهاي الأيام الفضيلة

رسالة من الفريق العلمي

اللهم إن عمر عطية في ذمتك وحبل جوارك، فقِه من فتنة القبر وعذاب النار، أنت أهل الوفاء والحق، فاغفر له وارحمه إنك أنت الغفور الرحيم.

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V0 → V1			
V1 → V2			