بسم الله الرحمن الرحيم

Test Bank

FINAL

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

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CLINICAL

رَبِّ اشْرَحْ لِي صَدْرِي وَيَسِّرْ لِي أَمْرِي وَاحْلُلْ عُقْدَةً مِّن لِّسَانِي يَفْقَهُوا قَوْلِي

Introduction to the nervous system

Q1 : A 72-year-old gentleman is observed to have a 'pill-rolling' tremor and a stiff, shuffling gait. If his condition is caused by basal ganglia dysfunction, which of the following signs would his family also likely observe?

A) Contralateral loss of pain and temperature

B) Sudden onset of tongue heaviness

C) Upgoing plantar response

D) Difficulty in initiating movements

Ans: D

Q2 : A patient suffers a traumatic injury to the anterior portion of the spinal cord (Anterior Cord Syndrome). Which of the following functions is most likely to be preserved despite the injury?

A) Pain sensation

B) Motor function in the lower limbs

C) Pressure and vibration sensation

D) Temperature regulation

Ans: C

Q3 : A patient presents with Brown-Séquard syndrome following a spinal injury that damaged the right half of the spinal cord. Which of the following sensory deficits would be expected on the **left** side of the body?

A) Loss of joint position sense

B) Motor paralysis

C) Loss of vibration sensation

D) Loss of pain and temperature sensation

Ans: D

Q4 : An elderly patient is being monitored for 'foot drop' after spending several weeks immobile in bed. The neurologist notes that the patient's foot drags when they try to walk. Which peripheral nerve is most likely damaged or compressed?

A) Common peroneal nerve

B) Axillary nerve

C) Vagus nerve

D) Median nerve

Ans: A

Q5 : A 74-year-old woman is brought to the clinic by her daughter, who notes her mother has developed a 'mask-like' facial expression and a tendency to shuffle when walking. If this condition involves the Basal Ganglia, which symptom is most likely to be observed during a physical examination?

A) Loss of consciousness

B) Hyperactive 'upgoing' plantar response

C) Involuntary movements at rest

D) Intention tremors during finger-to-nose testing

Ans: C

Q6 : A 62-year-old patient with a history of poorly controlled diabetes reports an 'unpleasant tingling' and numbness in the thumb, index, and middle fingers of the right hand. The neurologist suspects an entrapment neuropathy. Which anatomical structure is likely compressing the affected nerve?

A) Fibular head

B) Flexor retinaculum

C) Basal Ganglia

D) Cervical vertebrae

Ans: B

Q7 : A patient is brought to the Emergency Department after a motor vehicle accident. They are awake but demonstrate a profound inability to perform simple calculations or read a provided text. Which lobe of the cerebral cortex was most likely affected by the impact?

A) Temporal lobe

B) Occipital lobe

C) Frontal lobe

D) Parietal lobe

Ans: D

Q8 : 70-year-old woman is diagnosed with an acute ischaemic stroke. After the medical team excludes a haemorrhage via CT scan, what is the most appropriate acute pharmacological management to initiate?

A) L-Dopa/Carbidopa

B) IV methylprednisolone

C) 300 mg Aspirin PO

D) Disease modifying agents

Ans: C

Q9 : A 60-year-old female presents with a mouth deviation to the left and an inability to close her right eye. Which cranial nerve is most likely affected?

A) Abducens nerve

B) Facial nerve

C) Hypoglossal nerve

D) Trigeminal nerve

Ans: B

Q10 : A 32-year-old woman with a history of left-sided numbness a year ago now presents with right eye pain and blurring of vision. Her examination reveals an upgoing plantar response and clonus. What is the standard acute management for this condition?

A) L-Dopa/Carbidopa

B) IV methylprednisolone

C) Thrombolytics

D) Disease modifying agents

اللهم اغفر للمؤمنين والمؤمنات الأحياء منهم والأموات

فمن استغفر للمؤمنين والمؤمنات كتب الله له بكل مؤمن ومؤمنة حسنة

Ans: B

Pediatric Neurological Disorders

Q1: A 6-year-old child presents with a gait disturbance characterized by 'tiptoe walking' and an inward turning of the feet. The parents note that the child is completely symptom-free upon waking but the condition becomes progressively worse by the evening. Which genetic mutation is most likely associated with this presentation?

A) GCH−1

B) EV−D68

C) TH

D) CP−1

Ans: A

Q2: When differentiating between Diplegic Cerebral Palsy and Dopa-Responsive Dystonia (DRD), which clinical observation most strongly suggests a diagnosis of DRD?

A) Imaging findings of periventricular leukomalacia.

B) Diurnal variation of symptoms with evening exacerbation.

C) The presence of hypertonia in the plantar flexors.

D) A static clinical course that improves with physical therapy.

Ans: B

Q3: A paediatric patient is brought to the emergency department with a sudden onset of what appears to be coma or profound encephalopathy. History reveals a recent viral infection. If a posterior circulation stroke is suspected, which specific artery is involved in this rare paediatric presentation?

A) Middle cerebral artery

B) Internal carotid artery

C) Anterior spinal artery

D) Basilar artery

Ans: D

Q4 : How does the clinical outcome of paediatric stroke generally compare to that of adult stroke, despite frequent delays in paediatric diagnosis?

A) The outcome is significantly worse due to brain immaturity.

B) Outcomes are identical once adjusted for age.

C) Recovery is only possible if t-PA is administered within 3 hours.

D) The outcome is more favourable in children.

Ans: D

Q5 : A child presents with symmetric ascending weakness and paresthesia. A lumbar puncture is performed. Which CSF profile is most consistent with a diagnosis of Guillain-Barre Syndrome (GBS)?

A) Normal protein and high white blood cell count.

B) Low glucose and high protein.

C) High protein and normal white blood cell count..

D) High protein and high white blood cell count.

Ans: C

Q6 : Acute Flaccid Myelitis (AFM) is characterized by specific findings on Magnetic Resonance Imaging (MRI). Which description best matches the typical MRI appearance of AFM?

A) Lesions confined to the grey matter spanning ≥1 spinal segment.

B) White matter demyelination throughout the cerebral cortex.

C) Global cerebral oedema with midline shift.

D) Nerve root enhancement with no spinal cord involvement.

Ans: A

Q7 : A 7-year-old patient presents with rapid onset weakness in the left arm. Electromyography (EMG) shows evidence of motor neuronopathy, but sensory nerve conductions are intact. Which virus is most strongly associated with this condition?

A) Enterovirus EV−D68

B) Adenovirus

C) Campylobacter

D) Herpes simplex virus

Ans: A

Q8 : In the management of paediatric neurological disorders, which of the following is explicitly NOT recommended as a treatment for Guillain-Barre Syndrome (GBS)?

A) Plasma exchange

B) Physical therapy

C) Corticosteroids

D) Intravenous Immunoglobulin (IVIG)

Ans: C

Q9 : A clinician identifies the 'H-sign' on a spinal MRI of a young child. What does this sign represent pathologically?

A) Demyelination of the posterior columns.

B) Hyperintense signal confined to the spinal cord grey matter.

C) Compression of the cord by a herniated disc.

D) Enhancement of the cauda equina nerve roots.

Ans: B

Q10 : True or False:

In Acute Flaccid Myelitis, the causative virus is typically detected within the Cerebrospinal Fluid (CSF).

A) True

B) False

لو أنكم تتوكلون على الله حق توكله لرزقكم كما يرزق الطير، تغدو خماصاً وتروح بطاناً

Ans: B

Neurosurgery: Precision,Function & Innovation

Q1 : A 45-year-old patient presents with a progressive headache and right-sided weakness. An MRI reveals a large left-sided glioma encroaching on the motor cortex. According to the principles of neuro-oncology, what should be the surgeon's primary objective?

A) Maximal safe resection

B) Total radical excision of all abnormal tissue

C) Immediate chemotherapy and observation

D) Solely decompressing the mass effect

Ans: A

Q2 : A patient is admitted to the emergency department with a sudden "thunderclap" headache. A CT scan confirms a subarachnoid haemorrhage due to a ruptured aneurysm. What is the critical factor in determining the surgical approach in this case?

A) Emergency decision-making between clipping and coiling

B) Applying focused radiation to the vessel wall

C) Mandatory microsurgical clipping regardless of morphology

D) Waiting for the patient to stabilise before any intervention

Ans: A

Q3 : A 62-year-old male with advanced Parkinson's disease experiences severe motor fluctuations despite optimal medical therapy. Which functional neurosurgical procedure offers an adjustable and reversible treatment option?

A) Stereotactic thalamotomy

B) Vagus nerve stimulation

C) Gamma Knife radiosurgery of the basal ganglia

D) Deep Brain Stimulation (DBS)

Ans: D

Q4 : A patient suffers from drug-resistant epilepsy that has not responded to multiple anti-seizure medications. What is the primary surgical goal when considering a resection or disconnection procedure?

A) Reduction in medication side effects

B) Modulating motor pathways

C) Seizure freedom

D) Increasing the seizure threshold

Ans: C

Q5 : A patient is diagnosed with a vestibular schwannoma located at the skull base, very close to several cranial nerves. Why is a multidisciplinary approach often required in such cases?

A) Because these lesions are always considered high-grade malignancies

B) To determine the need for chemotherapy first

C) Due to the complex anatomy and proximity to vital structures

D) Because open surgery is always avoided in this region

Ans: C

Q6 : A young adult is brought to the emergency department following a high-speed motor vehicle accident. Which imaging modality is essential for the rapid assessment of acute bleeding and bone trauma?

A) Computed Tomography (CT)

B) Positron Emission Tomography (PET)

C) Electroencephalogram (EEG)

D) Magnetic Resonance Imaging (MRI)

Ans: A

Q7 : A neurosurgeon needs to treat a small, deeply located lesion without making a surgical incision. Which technology uses focused radiation beams to achieve millimetric precision?

A) Minimally invasive spine surgery

B) Gamma Knife Radiosurgery

C) Endovascular coiling

D) Neuropsychological profiling

Ans: B

Q8 : Functional neurosurgery is distinguished from other subspecialties by its underlying principle of treatment. What is primarily being treated in this field?

A) Acute vascular malformations

B) Metastatic brain tumours

C) Degenerative disc herniations

D) Dysfunctional neural circuits

Ans: D

Q9 : A neurosurgeon must perform a biopsy of a 10 mm lesion located in a deep, critical region of the brain. Which method provides the necessary 3D coordinate targeting for such millimetric precision?

A) External beam radiotherapy

B) Stereotactic Neurosurgery

C) Routine craniotomy

D) Video EEG monitoring

Ans: B

Q10 : A patient presents with acute onset paraplegia following a trauma. Why is the concept ″Time = Brain / Spinal Cord″ a central message in neurosurgery for this high-impact intervention?

A) It emphasises that rapid intervention is required to restore function

B) It suggests that surgery should only be performed within the first hour of life

C) It indicates that diagnostic imaging can be skipped to save time

D) It implies that survival is the only outcome that matters

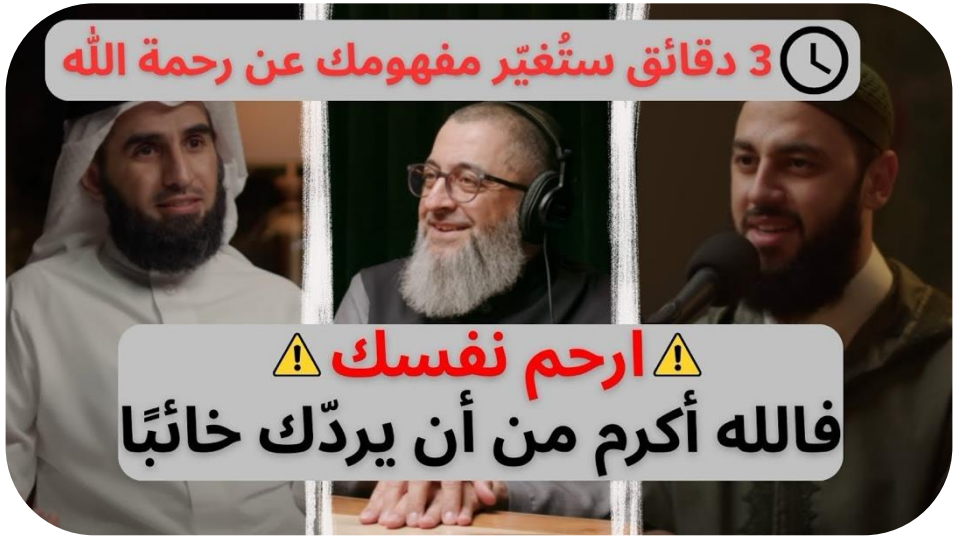
اللهم إنا نسألك الحسنى وزيادة.

"فالحسنى هي الجنة والزيادة هي لقاء الله فيها."

Ans: A

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.



اللهم أرني عجائب صنعك في دعائي، وأرني لطفك ورحمتك في قضاء حوائجي، وأرني كرمك وقدرتك في ما تعلق به قلبي، وافتح لي بابًا يا الله ظننت من شدة يأسي أنه لن يُفتح، اللهم افتح لي أبواب رزقك وتوفيقك، واستجب دعائي ووسّع لي رزقي

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Corrections from previous versions:

Versions	Slide # and Place of Error	Before Correction	After Correction
V0 → V1			
V1 → V2			