

Neurosurgery Wateen 2025



1. Which of the following is the most common type of functional pituitary adenoma?

- a. Lactotroph
- b. Gonadotroph
- c. Somatotroph
- d. Corticotroph
- e. Thyrotroph

2. What is the gold standard for intracranial pressure (ICP) monitoring in head injury?

- a. Intraventricular catheter
- b. Subarachnoid screw
- c. Intraparenchymal monitor

3. A patient presents with prolonged coma following severe head trauma.

CT scan: Shows diffuse cerebral edema with loss of gray-white matter differentiation.

What is the most likely diagnosis?

- a. Brain herniation
- b. Diffuse axonal injury
- c. Epidural hematoma
- d. Hypoxic-ischemic encephalopathy (Hypoperfusion)
- e. Cerebral contusion

4. False about subarachnoid Hge ?

- a. Maybe with Lucid interval
- b. Most common caused by arterial
- c. Crescent shape on CT

5. What is the main histopathological difference between low-grade astrocytoma and glioblastoma multiforme (GBM)?

- a. Presence of necrosis in glioblastoma
- b. Presence of necrosis in astrocytoma
- c. Absence of necrosis in glioblastoma
- d. Both tumors show central necrosis
- e. Necrosis is more common in low-grade astrocytoma

6. What is the most common primary malignant brain tumor in adults?

- a. Glioblastoma
- b. Astrocytoma
- c. Oligodendroglioma
- d. Medulloblastoma
- e. Meningioma

7. All of the following tumors are associated with Neurofibromatosis Type 2 (NF2) except:

- a. Schwannoma
- b. Meningioma
- c. Ependymoma
- d. Neurofibroma
- e. Vestibular schwannoma

8. A patient with subarachnoid hemorrhage (SAH) and GCS 14 — all of the following are true except:

- a. Monitor neurological status closely
- b. Control blood pressure carefully
- c. Prepare for possible intubation
- d. Immediate intubation is mandatory
- e. Manage pain and prevent agitation

9. Which tumor is characterized by “Homer wright rosettes” histology ?

- a. Medulloblastoma
- b. Ependymoma
- c. Pilocytic astrocytoma
- d. Oligodendroglioma
- e. Meningioma

10. A patient presents with subarachnoid hemorrhage (SAH) and has not recovered neurologically. He had a tonic-clonic seizure with no improvement.

What is the most important investigation to perform before surgery?

- a. Coagulation profile
- b. Toxicology screen
- c. Liver function tests (LFT)
- d. Alcohol level
- e. Sodium (Na) level

11. All of the following statements are true except:

- a. Astrocytoma is the most common primary brain tumor in adults
- b. Glioblastoma is a high-grade astrocytoma
- c. Pilocytic astrocytoma is common in children
- d. Oligodendroglioma typically presents with seizures
- e. Medulloblastoma is common in adults

12. What is the most common site of saccular (berry) aneurysms?

- a. Anterior communicating artery (ACOM)
- b. Middle cerebral artery (MCA)
- c. Posterior communicating artery (PCOM)
- d. Basilar artery
- e. Vertebral artery

13. What is the most common spinal anomaly?

- a. Spina bifida occulta
- b. Meningocele
- c. Myelomeningocele
- d. Tethered cord syndrome
- e. Diastematomyelia

14. A patient is diagnosed with normal pressure hydrocephalus (NPH). All of the following are true except:

- a. Dementia
- b. Urinary incontinence
- c. Magnetic gait (apraxic gait)
- d. Lower limb weakness

15. What is the most common presenting symptom of vestibular schwannoma (acoustic neuroma)?

- a. Headache
- b. Hearing loss / diminished hearing
- c. Vertigo
- d. Nausea and vomiting

16. All of the following are accepted management options for hydrocephalus except:

- a. Ventriculoperitoneal (VP) shunt
- b. Ventriculoatrial (VA) shunt
- c. Lumbo-peritoneal shunt
- d. Ventriculopleural (VPI) shunt

17. One of the following is true regarding split cord malformation:

- a. Associated with craniofacial anomalies
- b. Causes cardiac murmurs
- c. Causes limb weakness
- d. Treated with un-tethering surgery after removal of the bony septum
- e. Does not require surgical intervention

18. All of the following could be present with pinealoma except:

- a. Precocious puberty
- b. Obstructive hydrocephalus
- c. Parinaud syndrome
- d. Headache
- e. Skin rash

19. All of the following can be seen in Parinaud syndrome except:

- a. Upward gaze palsy
- b. Light-near dissociation
- c. Convergence-retraction nystagmus
- d. Pupillary abnormalities
- e. Hemianopia

20. Patient presents with the following:

Opens eyes only in response to pain

Speaks inappropriate words

Shows decerebrate posturing

What is the patient's Glasgow Coma Scale (GCS) score?

- a. 6
- b. 7
- c. 8
- d. 9
- e. 10

21. Which of the following is not part of the standard management of intracranial hypertension?

- a. Elevation of the head of bed
- b. Hyperventilation
- c. Osmotic therapy (e.g., mannitol)
- d. Sedation and analgesia
- e. Systemic steroids

22. What is the first-line treatment for a patient with spinal disc prolapse (herniated disc)?

- a. Physical therapy and pain management
- b. Surgery
- c. Corticosteroids

23. All of the following are typical features of Cauda Equina Syndrome except:

- a. Hyporeflexia
- b. Lower motor neuron signs
- c. Saddle anesthesia
- d. Bladder and bowel dysfunction
- e. Pyramidal signs

24. What is the most common spinal tumor?

- a. Meningioma
- b. Schwannoma
- c. Ependymoma
- d. Astrocytoma
- e. Metastasis

25. A patient presents with neck and supraclavicular pain along with pain in the middle finger and triceps muscle weakness. Which spinal nerve root is most likely affected?

- a. C5-C6
- b. C6-C7
- c. C7-T1
- d. C8-T1

26. A patient with an L5-S1 nerve root injury is most likely to have which of the following findings?

- a. Weakness in foot dorsiflexion
- b. Loss of Achilles reflex
- c. Decreased knee jerk reflex
- d. Weakness in hip flexion

27. Which of the following is NOT typically associated with myelomeningocele?

- a. Chiari II malformation
- b. Hydrocephalus
- c. Upper limb weakness
- d. Lumbosacral mass apparent at birth

28. Which of the following syndromes is associated with medulloblastoma?

- a. Gorlin syndrome
- b. Tuberous sclerosis
- c. Turcot syndrome
- d. Sturge-Weber syndrome

29. What is the most common site for an epidural (extradural) hematoma?

- a. Frontal region

- b. Occipital region
- c. Parietal region
- d. Temporal region

30. Which of the following is considered a good prognostic factor in pediatric brain tumors?

- a. Gross total tumor resection
- b. Low mitotic index (low proliferative activity)
- c. Absence of metastasis at diagnosis
- d. All of the above

31. Which of the following is a good prognostic factor in adult brain tumors?

- a. Tumor can be completely removed by surgery
- b. Tumor grows slowly
- c. Young age
- d. All of the above

32. All of the following are required investigations for hemangioblastoma except:

- a. Spinal CT
- b. Brain CT
- c. CBC
- d. Spinal MRI
- e. Brain MRI

33. All of the following are indications for ICP monitoring in patients with elevated intracranial pressure except:

- a. Salvageable patient with severe head injury
- b. Abnormal CT scan
- c. 50 years old patient with decerebrate posture and normal CT scan
- d. 55 years old patient with systolic blood pressure 85
- e. 50 years old patient with INR 4

34. Myelomeningocele is commonly associated with which of the following?

- a. Chiari I malformation
- b. Chiari II malformation
- c. Dandy-Walker malformation
- d. Arnold-Chiari malformation

35. Cushing's triad in raised ICP consists of:

- Headache, vomiting, and visual loss
- B. Pupillary dilation, hypotension, and tachycardia
- C. Decerebrate posturing, hypotension, and tachycardia
- D. Pupillary dilation, hemiplegia, and altered sensorium
- E. Bradycardia, widened pulse pressure (hypertension), and irregular (or slow) breathing

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1. Head circumference is usually decreased in craniocynostosis:

False

2. Time to repair myelomeningocele :

Within 48 hours

3. Primary aim to repair myelomeningocele:

Infection

4. Time to repair craniosynostosis:

6mths - 18mths

5. Primary aim to treat craniosynostosis:

Cosmetic

6. Spinal tumor arising from denticulate ligament

Meningioma

7. Lateral disc prolapse at C5/C6 what sensation is affected

Thumb

8. What dermatome is innervation of c8

Little finger

9. Most common spinal tumor :

Mets

10. Pt bp 75/35 pulse 130 with high icp, what is the priority:

Correct BP

11. Trauma pt, hypotensive, intracranial hypertension, what is the choice to correct icp :

Hypertonic saline 23%

12. Most common craniosynostosis

Scaphocephaly

13. One of these is extra axial:

Meningioma

14. One of these is not for grading of SAH

Schatzker

15. Pt has no motor, sensory is present what is ASIA grade ?

ASIA B

16. Cervical myelopathy, what type of gait ?

Spastic gait

17. All these symptoms occur with cauda equina syndrome except ?

Spasticity

18. Fracture of what vertebra causes cauda equina syndrome?

L3

19. Jefferson fracture refers to fracture of :

C1

20. Spinal tumor in which 99% cases are painless :
Hemangioma

21. Fracture of one of these levels causes abdominal breathing:

C7

22. What intracranial hemorrhage has better prognosis following treatment:

Epidural hematoma

23. Which intracranial hematoma crosses suture lines :
Subdural hematoma

24. Spinal cord injury, Upper limb is affected lower is not :
Central cord syndrome

25. What type of fracture is in dens anterior column :
Wedge compression fracture

26. Gcs of unresponsive patient ?
3

27. WHAT IS THE SITE OF OBSTRUCTION leading to
communication hydroceph?
Arachnoid villi

28. Narrowest part of csf flow ?
Aqueduct of Sylvius

29. What is rate affected in elevated ICP
Csf absorption

30. Drop mets in :
Medulloblastoma

31. VHL disease associated with :
Hemangioblastoma

32. What childhood tumor can be successfully treated surgically with no need for post operative radiation :
Pilocytic astrocytoma

33. Mc cause of spontaneous SAH:
Berry aneurysm

34. Mc common cause spinal cord injury:
MVA

35. MC PRIMARY ADULTHOOD TUMOR :
glioblastoma multiforme

36. One is intra dural extra medullary : neurofibroma

37. One of the following cause 2ry sc injury :
All of the above

38. Pt with anisocoria, management :
Do both simultaneously (ct and surgery)

39. One of these pituitary adenoma causes compressive macroadenoma ?
Non functional pituitary adenoma

40. What complication of SAH never happens in day one
?

Vasospasm