

Test Bank

Subject:

Sub Surgery Final-

Neurosurgery

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*** = REPEATED

RED= Most likely not included in our course

YELLOW= We are not sure on the answers (will update you on the post if we find anything new)

GREEN= The idea is repeated throughout the past paper (study this topic)

1-In unconscious patient the spinal injury is assessed by one of the following:

- a. Spinal tenderness
- b. Absence of response to painful stimulus
- c. Absence of deep reflexes
- d. Inspection of the back of patient
- e. Moving upper and lower limbs of the patient.

Answer: C

2-All the following indicate injury at S1 level except:

- a. Weakened plantar flexion of the ankle.
- b. Weakened dorsiflexion of the four lateral toes.
- c. Upgoing plantar(extensor) reflex
- d. Hypoesthesia on the lateral border of the foot
- e. Absent ankle reflex

Answer: C

3-According to WHO classification, which of the following is grade II:

- a. Anaplastic astrocytoma
- b. Glioblastoma multiforme
- c. Diffuse Fibrillary astrocytoma.
- d. atypical meningioma
- e. C + D

Answer: E

4-The most common cervical injury is:

- a. Degenerative
- b. Transverse myelitis
- c. Spondyloarthropathies
- d. Traumatic

Answer: D

5-Percentage of radiographic evidence of Vasospasm post-SAH is:

- a. 20%
- b. 30%
- c. 40%
- d. 50%
- e. 60%

Answer: E (50%-70%)

6-The most common cause of hydrocephalus in children is: ***

- a. Congenital aqueductal stenosis
- b. Choroid plexus papilloma
- c. Temporal lobe lesion

Answer: A

7-One of the following isn't a complication of VP shunt: ***

- a. Infection
- b. Electrolyte imbalance
- c. Displacement

Answer: B

8-50-year-old male present with sudden onset morning headache & vomiting, and the headache was occipital. Which of the following is correct: ***

- a. The nature of headache is tension-like.
- b. Consider migraine prophylaxis.
- c. This patient has Papilledema.
- d. If there is neck stiffness, maybe he is having meningitis.

Answer: C

9-All the following can cause spinal canal stenosis except: ***

- a. Multiple osteophytes
- b. Ligamentum flavum hypertrophy
- c. Facet joint hypertrophy
- d. Denticulate ligament hypertrophy
- e. Multiple disc bulges

Answer: D

10-All are false about acute subdural hematoma **except:** ***

- a. The blood clot is found between the skull and meninges.
- b. Most of the manifestations are due to the presence of the blood clot.
- c. It is more dangerous than extradural hematoma.
- d. Treatment is by removal of the hematoma and excision of the affected brain area using burr hole.

Answer: C

11-What is the most common posterior fossa tumor in adults? ***

- a. Ependymoma
- b. Astrocytoma
- c. Vermis medulloblastoma or something like that
- d. Hemangioblastoma

Answer: D

12-Disk prolapse at L4/L5. Which of the following will happen?

- a. Knee reflex absent
- b. Dorsiflexion of the foot weaker
- c. Positive Babinski

Answer: B

13-A man with chronic low back pain, presented with acute pain and sciatica over the lateral leg and dorsum of foot and big toe, of 12 hours duration, POSITIVE straight leg raise on LEFT side, no other neurologic findings, what is true:

- a. Cauda equine can't be excluded
- b. Mostly he has L4 L5 prolapse
- c. MRI should be done urgently
- d. Less than 20% respond to conservative treatment

Answer: B

14-In idiopathic intracranial hypertension, which is false:

- a. Intracranial pressure is >20
- b. Papilledema is always present
- c. There is a space occupying lesion in most cases
- d. Carbonic anhydrase inhibitor is part of the treatment
- e. LP shunt is effective

Answer: C

15-Not an early complication of the SAH (something like that): ***

- a. Re-bleeding
- b. Vasospasm
- c. Hydrocephalus
- d. Hyponatremia

Answer: B (occurs after 4-14 days)

16-MOST COMMON vertebrae involved in RTA:

- a. Cervical
- b. Thoracolumbar
- c. Lumbar
- d. Thoracic

Answer: A

(although in orthopedics Dr. Fadi said that the junctional areas from kyphosis to lordosis e.g., thoracolumbar is the most common.)

17-Epidural hematoma what is the **least** affected age group:

- a. 15-30
- b. >60
- c. Mid age men
- d. Mid age women

Answer: B

18-Which of the following does not cause cauda equina syndrome:

- a. Transverse process fracture
- b. Central disc prolapses
- c. Hematoma developing after laminectomy

Answer: A

19-A lady came to you with 2-year history LOWER LIMB weakness, the most likely Dx is: ***

- a. Breast CA
- b. Spinal meningioma
- c. Schwannoma

Answer: B

20-All are risk factors of meningioma except:

- a. Recurrent meningitis
- b. Trauma
- c. Radiation
- d. Female

Answer: A

21-Most common spinal tumor

- a. Extradural Metastasis
- b. Ependymoma
- c. Astrocytoma
- d. Meningioma

Answer: A

22-Late complication of SAH (not occurring before 72 hours) is:

- a. Hypernatremia
- b. Vasospasm
- c. Rebleeding

Answer: B (occurs after 4-14 days)

23-A patient has moderate head injury, the Glasgow Coma Scale is:

- a. Below 6
- b. Below 8
- c. 9 -13
- d. 13-15
- e. 14-15

Answer: C

(Mild= GCS 14-15, Moderate= GCS 9-13, Severe= GCS =<8)

24-All the tumors are more common in males except:

- a. Glioblastoma multiforme
- b. Astrocytoma
- c. Medulloblastoma
- d. Pineocytoma

Answer: D (more common in females)

25-Associated with high velocity pelvic fracture

- a. Head injury
- b. Liver injury
- c. Peripheral nerves injury
- d. Spleen injury

Answer: C

26-One is not a manifestation of subarachnoid hemorrhage:

- a. Headache
- b. Neck stiffness
- c. LOC
- d. Vertigo
- e. Vomiting

Answer: D

27-Trans-tentorial herniation at level of midbrain will affect all except:

- a. Pupillary size
- b. Motor system
- c. Respiratory system
- d. Eye movement
- e. Level of consciousness

Answer: C

28-One will cause calcification:

- a. Oligodendroglioma
- b. Ependymoma
- c. Both

Answer: C

26- Incidence of myelomeningocele is:

- a. 0.5-2/1000 birth
- b. 2-5/1000 birth
- c. 5-15/1000 birth
- d. 15-25/1000 birth
- e. 25-35/1000 birth

Answer: A

27-Cerebral aneurysm of grade 1 after 3 months, incidence of death:

- a. 2-5%

- b. 0-1%
- c. 25%
- d. 3.5%

Answer: A

28-One is false about meningocele:

- a. Cystic cavity of CSF lined with meninges or skin with no neural tissue
- b. More common than myelomeningocele
- c. Transillumination is helpful

Answer: B

29-Intracranial pressure is:

- a. Systolic +cerebral perfusion (CCP)
- b. Systolic - cerebral perfusion
- c. Mean arterial + CPP
- d. Mean arterial – CPP

Answer: D

30-A patient with headache, blurring of vision, Rt homonymous hemianopia with loss of light reflex. The lesion is in:

- a. Frontal
- b. Temporal
- c. Parietal
- d. Occipital
- e. Corpus callosum

Answer: D

31-One of the following is **not** seen in increased ICP: ***

- a. Erosion of posterior clinoid
- b. Thumb-eaten appearance (x-ray)
- c. Erosion of dorsal sella
- d. Shallow posterior fossa
- e. Widening of sutures

Answer: D

32-In increased ICP, all of the following are present **except**:

- a. Thumb impression (x-ray)
- b. Wide suture
- c. Skull enlargement
- d. Erosion of posterior clinoid
- e. Enlargement of sella turcica

Answer: C

33-Most common first presentation of spinal tumors in children:

- a. Gait
- b. Sensory deficit
- c. Pain
- d. Motor deficit
- e. Sphincter problem

Answer: C

34-All tumors have male predominance, except:

- a. Neuroma
- b. Ependymoma
- c. Medulloblastoma
- d. Glioblastoma multiforme

Answer: A

(brain tumors are more common in M>F except meningiomas. Neuromas are not brain tumors)

35-All are true regarding neurofibromas, except:

- a. Usually occurs in motor roots.
- b. Arise from lateral or posterior side of spinal cord.
- c. May lead to an increase of intravertebral foramen.

Answer: A

36-All are true regarding shunt complications in hydrocephalus, **except**:

- a. Meningitis
- b. Shunt rejection
- c. Ventriculitis
- d. Subdural hematoma
- e. Epilepsy

Answer: B

37-A 50-year-old female presented to ER with sudden onset severe headache and photophobia on exam, neck stiffness, what is your top differential diagnosis?

- a. Subarachnoid hemorrhage
- b. Meningitis
- c. Migraine
- d. Idiopathic intracranial hypertension

Answer: A

38-Meningomyelocele, all of the following are aims of treatment except:

- a. Plastic appearance
- b. Decrease CSF leak
- c. Prevent infection
- d. Prevent further neurological deficit

Answer: D

39-One is true regarding subdural hematoma: ***

- a. Usually, its prognosis is worse than extradural hematoma
- b. Arises from meningeal vessels
- c. Treatment of choice to evacuate hematoma and excision of lacerated necrotic tissue by Burr holes

Answer: A

40-Regarding myelomeningocele which is incorrect:

- a. Associated with hydrocephalus in 80% of cases
- b. Male predominance
- c. Occurs during the first month of pregnancy
- d. Associated with diastematomyelia

Answer: B (it is more common in females)

41- A 60-year-old man, developed back pain followed by paraparesis then developed to paraplegia over **6 hours**, on CXR, he had a hilar mass which of the following is most likely the diagnosis:

- a. Extradural Extramedullary neoplasm
- b. Extramedullary intradural neoplasm
- c. Intramedullary intradural neoplasm
- d. Hematomyelia
- e. Transverse myelitis

Answer: A

42-Regarding spontaneous SAH, all are correct **except**: ***

- a. Rebleeding may occur in following 3-10 days
- b. Vasospasm may occur in the following 1-3 days
- c. Conservative management is recommended in stage 1

Answer: B

43-An aneurysm in which of the following is most likely to cause unilateral **3RD**

cranial nerve palsy:

- a. Anterior communicating artery
- b. Posterior communicating artery
- c. Middle cerebral artery

Answer: B

44- All are associated with spinal neurogenic shock except:

- a. Dry skin
- b. Warm skin
- c. Paralysis
- d. Hypotension

Answer: B

(the skin in spinal neurogenic shock is dry and cold)

45-All are true about Idiopathic intracranial HTN except:

- a. High CSF open pressure
- b. High CSF protein
- c. Young obese females
- d. Best treatment is by LP shunt.
- e. CT shows small or normal sized ventricles.

Answer: B

46-All can indicate the level of disc prolapsed except:

- a. Muscle weakness
- b. Absent reflex
- c. Absent Babinski
- d. Radiation of pain
- e. Dermatomal distribution of sensory loss

Answer: C

47-Which is **incorrect about subarachnoid hemorrhage?**

- a. Occurs only in adults
- b. Associated with sudden onset headache.
- c. Aneurismal hemorrhage has poorer prognosis than AVM.
- d. Surgery is not done for stage 4

Answer: A

48-About Dandy-Walker malformation, which is not true:

- a. Absent or hypoplastic cerebellar vermis.
- b. Posterior Fossa cyst communicates with 4th ventricle.
- c. Associated with hydrocephalus.
- d. Small posterior Fossa
- e. Can be associated with polydactyly.

Answer: D (posterior fossa is enlarged in dandy-walker malformation)

49-About medulloblastoma, which is wrong?

- a. Resistant to CTX
- b. Occurs in children < 15 years old.
- c. CSF seeding

Answer: A

50-About SAH, which is not true?

- a. F>M
- b. Rebleeding mostly occurs in the 1st 3 days.
- c. Surgery aims at preventing rebleeding.
- d. Rebleeding partly occurs due to fibrinolytic activity in CSF.
- e. The only way to demonstrate blood in CSF is by LP

Answer: E

51-All causes communicating hydrocephalus except:

- a. Meningitis
- b. Aqueductal stenosis
- c. Encephalocele
- d. Normal pressure hydrocephalus
- e. Subarachnoid hemorrhage

Answer: B

52-Epilepsy occurs post trauma can occur due to all of the following, except:

- a. Depressed fracture
- b. Intracranial hematoma
- c. Dural tear
- d. Brain contusion
- e. Diffuse axonal injury

Answer: C

53-General measures that are used to lower intracranial pressure include all of the following, except:

- a. Head up 30 degrees
- b. Avoid hypotension
- c. Avoid jugular venous outflow constriction
- d. Induce hyperventilation
- e. Intubate patient with GCS < 8 or with respiratory distress

Answer: D (hyperventilation is a specific measure)

54-All can cause dilated nonresponsive pupil, except:

- a. Optic nerve injury
- b. Brain stem herniation
- c. Oculomotor nerve injury
- d. Abducent nerve injury
- e. Sympathetic tone loss

Answer: Both D & E are correct

Sympathetic tone loss (i.e. Horner's syndrome) will cause constriction of the pupil

55-Intracranial lesion (mass lesion) can present with:

- a. Increased intracranial pressure
- b. Motor deficits
- c. Fits
- d. Cranial nerve lesion
- e. All of the above

Answer: E

56-An absolute indication for the elevation for depressed skull fracture:

- a. Over an eloquent center but with no neurological deficits
- b. Compound dirty fracture
- c. Sharp angle of fracture
- d. Underlying thin non-compressing subdural hematoma
- e. Overlying the sagittal sinus

Answer: B

CORRECTING DEPRESSED FRACTURES

- If they are compound
- If they are depressed more than 1 cm
- If they are associated with neurological damage
- If they overlie important area
- If they might cause disfigurement *Cosmetic*
- If they are accompanied by seizures

57-A 35 male patient in his third post-operative day (craniotomy for excision of frontal meningioma). A few minutes after the ward round, he was found unconscious and not responding in his bed. The most possible cause for his condition is:

- Intracerebral hematoma.
- Hydrocephalus secondary to surgery.
- Seizure
- Recurrence of tumor.
- Brain edema.

Answer: C

58-Which is/are acceptable procedures for the treatment of hydrocephalus?

- Endoscopic third ventriculostomy
- Ventriculoperitoneal shunt
- Ventricular access device with frequent tapping
- External ventricular drain
- All of the above

Answer: E

59-Wrong about epidural hematoma:

- Most common source of bleeding is the middle meningeal artery
- Most commonly in the frontal region
- Can occur due to a fracture line
- Lucid interval corresponds to the period of accumulation of blood
- Occurs mainly in population below the age of 40

Answer: B (extradural hematomas m.c. occur in the temporal region)

60-Decrebrate rigidity/posture results because of a lesion in:

- a. Midbrain
- b. Pons
- c. Cerebellum
- d. Medulla oblongata
- e. Diencephalon

Answer A

61-Wrong about L4-L5 disc prolapse:

- a. The most common disc prolapse
- b. The nerve root affected is L5
- c. Most often, the management is conservative
- d. Ankle reflex is absent or decreased in most cases

Answer: Both A & D are correct
(L5-S1 is the most common prolapse according to the slides)

62-The indications for surgery in disc prolapse include:

- a. Cauda equina syndrome
- b. Progressive motor deficit
- c. Pain affecting the quality of life
- d. All of the above

Answer: D

63-A patient comes to the ER 30 minutes after an RTA. He has signs of C7 radiculopathy. Which of the following is appropriate in his management:

- a. Cervical immobilization with cervical collar
- b. Cervical x-ray
- c. Cervical MRI
- d. Cervical CT with 3D reconstruction of C1 & C2
- e. All of the above

Answer: E

64-Which is a wrong combination:

- a. Corneal reflex: CN V & CN VII
- b. Cough reflex: CN X
- c. Gag reflex: CN IX & X
- d. Vestibulo-ocular reflex: CN II & III
- e. Salivary reflex: CN VII

Answer: D

(Vestibulo-ocular reflex occurs between CN 8 & III, IV, VI [oculomotor system])

65-Which of the following cannot be caused by a suprasellar mass:

- a. Anosmia
- b. Fits
- c. Headache
- d. Motor deficits

Answer D

66-Wrong about a Myelomeningocele:

- a. Surgery can reverse the neurological deficits
- b. Management includes dressing, antibiotics and closure within 48-72 hours
- c. It usually develops in the first month of pregnancy
- d. Can be prevented by taking folic acid supplementation prior to pregnancy
- e. It is usually associated with hydrocephalus

Answer: A

67-All of the following are likely to cause epilepsy, except:

- a. Cortical contusion
- b. Cryptococcal meningitis
- c. Bacterial meningitis
- d. Subarachnoid haemorrhage
- e. Multiple Sclerosis

Answer: E

68-Which of the following is correct regarding chronic subdural hematoma:

- a. Can appear either hyperintense, isointense, or hypointense on MRI
- b. Associated with brain atrophy
- c. Mostly can be drained by Burr holes
- d. All of the above

Answer: C

69-Case history of a child with medulloblastoma. He has hydrocephalus. Which of the following is wrong about the management:

- a. Total and axial radiotherapy
- b. Chemotherapy
- c. Repeat surgery for residual mass
- d. Drainage procedure

Answer: D

70-Which nerve fibers share in the control of normal bladder function:

- a. Vagal and sacral efferent only
- b. Sacral and lumbar only
- c. Sacral, lumbar, and descending cortical
- d. Thoracic, lumbar, and cervical fibers only

Answer: C

71-Regarding far lateral prolapsed intervertebral disc, the following are true, except:

- a. Pain is more severe than medial disc
- b. Fragmented disc is more common
- c. Tilting to the opposite side reproduce pain
- d. Affecting nerve at the same level of the lesion

Answer: C

72-The best modality for evaluation of head injury:

- a. CT scan
- b. MRI
- c. MRA
- d. Cerebral angiography
- e. Plain film radiographs

Answer: A

73-The following are causes of epilepsy except:

- a. Cerebral hematoma
- b. Cerebellar hematoma
- c. Cortical contusion
- d. Suprasellar tumor
- e. Hydrocephalus

Answer: B

74-All are early complication in head injury except:

- a. Epilepsy
- b. Brain edema
- c. CSF leak

Answer: B (brain edema is a type of secondary injuries. Secondary injuries, according to them as well, require hours to days to develop.)

75-Causes of secondary brain injury except:

- a. Counter coup injury
- b. Hematoma
- c. Brain shifting

Answer: A ("hematoma" is considered to be both primary and secondary. Therefore, the answer to the above question is probably "countercoup" injury which can never be secondary!)

76-Complication of lumbar disc surgery except:

- a. Gynecological injury
- b. Not the level of the affected disc
- c. Hit an artery

Answer: A

77-L4-L5 disc prolapse true except:

- a. Affected the nerve of that level
- b. Decreasing the pain when tilting to the opposite side
- c. Treated conservatively

Answer: A

78-All are signs of basal skull fracture **involving the anterior fossa** except:

- a. Battle's sign
- b. CSF rhinorrhea
- c. Epistaxis
- d. Blindness
- e. Raccoon's eyes

Answer: A

(Anterior Fossa Fracture - anosmia, epistaxis, rhinorrhea, subconjunctival hemorrhage, periorbital hemorrhage (raccoon eyes, visual disturbances, altered eye movement, ptosis, loss of sensation to forehead, cornea, and nares

Middle Fossa Fracture - loss of sensation to lower face, otorrhea, deafness, tinnitus, facial palsy, hemotympanum

Posterior Fossa Fracture - ecchymosis behind the ear (battle sign), impaired gag reflex Catastrophic injuries can occur if there is a major disruption of the carotid artery (blood supply to middle and anterior cerebral cortex) or vertebral artery (blood supply to brain stem and posterior cerebral cortex), or if the brain stem is disrupted)

http://www.lhsc.on.ca/Health_Professionals/CCTC/edubriefs/baseskull.htm

79-Wrong about the management of shunt infections:

- a. Immediate replacement of the shunt
- b. External ventricular drain
- c. Systemic antibiotics
- d. Intraventricular antibiotics
- e. Endoscopic third ventriculostomy

Answer: A

80-Not a treatment modality for non-communicating hydrocephalus:

- a. Lumboperitoneal shunt
- b. VP shunt
- c. Ventriculostomy
- d. Endoscopic third ventriculostomy
- e. Removal of the obstruction

Answer: A

81-Not treatment to lower ICP in severe head injury

- a. Elevate head 45 degrees
- b. Sedation
- c. IV steroids
- d. Mannitol
- e. Craniotomy

Answer: C

82-Not with basal skull fracture

- a. Battle's sign
- b. Rhinorrhea
- c. Otorrhea
- d. Loss of consciousness
- e. Hemotympanum

Answer: D

83-Wrong about medulloblastoma:

- a. Most common primary in children
- b. More in females
- c. In posterior fossa

Answer: B (all brain tumors except meningiomas are m.c. in males)

84-Not with cauda equina syndrome

- a. Hyporeflexia
- b. Saddle anesthesia
- c. Positive Babinski
- d. Retention
- e. Incontinence

Answer: C

85-Wrong about temporal epilepsy surgery

- a. 80% success
- b. 15% upper quadrantanopia
- c. Temporal lobe is the most common site for refractory epilepsy.
- d. Given anti epileptics 2 years afterwards

Answer: D

86-Not with Arnold Chiari syndrome:

- a. Syringomyelia
- b. Myelomeningocele
- c. Large 4th ventricle
- d. Hydrocephalus
- e. Cerebellar herniation

Answer: C

87-Not involved in spinal canal stenosis ***

- a. Ligamentum flavum
- b. Lamina
- c. Denticulate ligament
- d. Posterior longitudinal ligament
- e. Facets

Answer: C

88-ICP monitoring, what is wrong:

- a. There are 4 types of waveforms A, B, C, D
- b. Complications are infections and hemorrhage, in that order

Answer: A

89-About spinal cord, all the following are correct **except**:

- a. Denticulate ligament is formed by condensation of subarachnoid matter
- b. Artery of Adamkiewicz supplies the thoracic Vertebrae

Answer: A

90-About CSF, all the following are correct **except**:

- a. It's formed solely by choroid plexus.
- b. Protein concentration is about 40mg/dL.

Answer: A

91-One of the following is **correct** about cerebral circulation:

- a. Cerebral circulation is controlled mainly by ANS.
- b. Cerebral vasoconstriction occurs when blood pressure rises.

Answer: A

92-About meningioma, which is **not** true? ***

- a. Usually metastasizes
- b. History of radiation

Answer: A

93-Patient post RTA mild head injury with dementia the following few weeks, the cause:

- a. Chronic subdural hematoma
- b. Intracerebral hematoma

Answer: A

94-Extradural hematoma true except:

- a. The most affected artery is the middle meningeal.
- b. Have lucid interval
- c. The treatment is evacuation
- d. All of the above are true

Answer: D

95-All of following are indications of hemispherectomy in refractory seizure except:

- a. Sturge weber syndrome
- b. Rasmussen disease
- c. Hemispheromegaly

**The answer was a syndrome starting with B alphabet
(Answered by exclusion :D)**

• **Indications:**

- Multifocal seizure
- <8 years old
- Hemimegaloencephaly
- Sturge-Weber Disease
- Rasmussen ncephalitis
- Lennox-Gastaut Disease

96-Concerning the non-surgical treatment of brain tumor, all of the following statements are true except:

- a. antiepileptics
- b. analgesia
- c. diazepam
- d. head elevation 30 degrees (patient with increase ICP)
- e. dexamethasone

Answer: C

97-If the clinical picture is highly suggestive of subarachnoid hemorrhage and initial CT brain was normal, second step to confirm diagnosis will be:

- a. serum fibrinogen
- b. conventional cerebral angiogram
- c. b2-transferrin in the serum
- d. lumbar puncture
- e. CT angiogram

Answer: D

98-Concerning pituitary tumors all of the following statements are true except:

- a. Transsphenoidal approach is the most common surgical approach
- b. Prolactinoma is the most common secreting pituitary tumor
- c. The visual field deficit is usually due to invasion of the cavernous sinuses on both sides of Sella Turcica
- d. Macroadenoma include all pituitary adenomas size with more than 10mm
- e. They represent about 8-14% of all brain tumors

Answer: c

99-Concerning pituitary tumors all of the following statements are true except:

- a. Transsphenoidal approach is the most common surgical approach
- b. GH secreting adenoma is the most common secreting pituitary tumor
- c. Medical treatment is available for prolactin secreting tumors
- d. Macroadenoma include all pituitary adenomas size with more than 10mm
- e. They represent about 8-14% of all brain tumors

Answer: B (prolactinoma is the m.c. secreting tumor)

100-Concerning pituitary tumors all of the following statements are true except:

- a. Transsphenoidal approach is the most common surgical approach
- b. Prolactinoma is the most common secreting pituitary tumor
- c. Medical treatment is available for prolactin secreting tumors
- d. Macroadenoma include all pituitary adenomas size with more than 10mm
- e. They represent about 1-2% of all brain tumors

Answer: E

101-A 2-year-old male child, known case of hydrocephalus, presented to the ER with fever and hypoactivity. He had an operation for a ventriculoperitoneal shunt insertion one month ago. Sampling of the cerebrospinal fluid was done from the valve, the laboratory results were WBC: 450/mm, protein: 135 mg/dl, sugar: 5mg/dl. The next step will be:

- a. Reassurance and referral to outpatient clinic
- b. Admission to hospital for parenteral antibiotics and shunt removal
- c. Do the covid 19 swab for the fever

- d. Keep under observation till you get the results of the CSF culture and sensitivity
- e. Discharge home on oral antibiotics

Answer: B

102-Which one of the following cranial nerves carry parasympathetic fibers?

- a. Facial nerve VII
- b. Vestibulocochlear nerve VIII
- c. Hypoglossal nerve XII
- d. Abducens nerve VI
- e. Trochlear nerve IV

Answer: A

103-All of the following are radiological signs of chronic increased ICP except:

- a. Midline shift
- b. Erosion of the posterior clinoid processes as seen on plain skull x-rays
- c. Widening of the interhemispheric fissure
- d. Effacement of the brain sulci on CT or MRI
- e. Compressed small ventricles

Answer: C

104-All are true regarding the CSF except: ***

- a. The total volume is replaced three times daily by the continuous process of secretion and absorption
- b. The volume of CSF in an adult human being is 150 cc
- c. The normal CSF has a salty taste
- d. The CSF protein concentration is less than that of plasma
- e. The secretion of CSF is mainly the function of the arachnoid granulations

Answer: E

105-The approximate 2-hour mortality in spontaneous subarachnoid hemorrhage is

- a. Less than 5%
- b. 30-50%
- c. More than 90%
- d. 10-14%
- e. 60-80%

Answer: probably B (not sure)

106-Concerning epilepsy, all of the following statements are true except:

- a. The most common location of epileptogenic activity in refractory seizure is the frontal lobe
- b. Prevalence of epilepsy in general population is 0.5-1%
- c. Morbidity in epileptic patients is 10 times more than the normal population

- d. Refractory seizure in adult include persistent seizures despite appropriate pharmacological treatment (3AEDs including one of the new generation)
- e. In around 1/3 of all patients with seizures will develop refractory seizures

Answer: A

107-A 70 year old woman is brought to the clinic by her daughter who complains that her mother has an amnesia for recent events since a few months, which is getting worse. Two week ago, her mother was found wandering lost in her local shops. She had also forgotten recent family events. Her neurological examination was normal apart from a mini-mental test score of 22 out 30. Which one of the following is the most likely diagnosis?

- A. Alzheimer's
- B. Normal pressure hydrocephalus
- C. Multi-infarct dementia
- D. Subacute combine degeneration of the cord (vitamin B12 deficiency)
- E. Pick's disease (frontotemporal dementia)

Answer: A

108-Concerning brain tumors, all of the following data are true except:

- a. The prevalence of brain tumors is between 5-18/100.000 population
- b. They are slightly more common in males than females
- c. Median age of presentation is 38-42
- d. In Jordan, the prevalence is 10/100.000 population
- e. Malignant brain tumors rarely metastasize outside CNS

Answer: D

109-Concerning brain tumors, all of the following data are true except:

- a. The prevalence of brain tumors is between 5-18/100.000 population
- b. Glioblastoma is the most common pediatric brain tumor
- c. Meningioma is the most common primary brain tumor
- d. In Jordan, the prevalence is 5/100.000 population
- e. Meningioma can be cured with surgical resection

Answer: B (medulloblastoma is the m.c. brain tumor in pediatrics)

110-Which of the following is a reversible cause of dementia?

- a. Frontotemporal dementia
- b. Creutzfeldt Jakob disease
- c. Multi-infarct dementia
- d. Normal pressure hydrocephalus
- e. Parkinson's disease related dementia

Answer: D

111-A 60 year old woman came to the OPD complaining of long-standing dorsal pain and gradual onset of sensory and motor manifestations in her lower limbs that was progressive over the past three months. Examination of the lower limbs showed paraparesis grade 3/5 MRC scale, more on the right with increased tone and exaggerated deep tendon reflexes. She had extensor planter reflexes and a sensory level at T10. The MOST LIKELY diagnosis would be

- a. Metastatic spinal compression
- b. Schwannoma at the left T10 root
- c. Syringomyelia
- d. Filum terminale ependymoma
- e. Dorsal meningioma

Answer: E

112-A 41-year-old male presents with neck pain that was radiating to the left arm of 4 weeks duration. On examination there is weakness of triceps and wrist flexion. Which level is the pathology likely to be at?

- a. C4/5
- b. C6/7
- c. C5/6
- d. C7/T1
- e. T1/2

Answer: B

113-Regarding fractures of the skull, all of the following are true except

- a. Basilar skull fractures are more likely to injure cranial nerves than vault fractures
- b. Linear fractures do not require treatment unless associated with complications
- c. Pond fractures of babies do not require elevation
- d. Compound depressed skull fractures require emergency treatment
- e. A growing skull fracture is a complication of linear fractures in adults

Answer: E

114-Concerning the work up for the diagnosis of the epileptogenic foci, all of the following investigations are helpful except:

- a. Brain MRI
- b. EEG
- c. SPECT scan
- d. Video EEG
- e. PET scan

Answer: A

115-A 19-year-old man was brought to the ER after being involved in a road traffic accident. Examinations showed that his Glasgow coma score was 15/15, with no abnormal neurological signs. His blood pressure, pulse rate and respiration were normal. Examination of all systems was negative. The patient drew the attention of the examining doctor to the fact that when he bent his head, some clear fluid came down his left nostril. Testing the fluid for beta 2 transferrin proved that it was CSF. The diagnosis of basal skull fracture and CSF was made. The NEXT STEP would be:

- A. Prescribe broad spectrum antibiotics for 2 weeks and ask the patient to come to OPD afterwards
- B. Admit the patient and take the patient to the operating theatre and close the site of the leak. Give post-operative antibiotics
- C. Discharge the patient and ask him to take appointment with the ENT department
- D. Ask for ENT consultation. So that the nasal cavity be examined to try to detect the site of the leak
- E. Admit the patient, give broad spectrum antibiotics, and wait for the leak to stop spontaneously

Answer: E

116-In a patient with a high clinical suspicion of acute bacterial meningitis which of the following is NOT a contraindication for doing lumbar puncture when brain neuroimaging is not available?

- a. Daily aspirin use
- b. Papilledema
- c. Seizures occurring during the illness
- d. Right sided hemiparesis developing during the illness
- e. Decreased level of consciousness

Answer: A

117-All of the following can cause communication hydrocephalus except:

- a. Meningeal carcinomatosis
- b. Subarachnoid hemorrhage
- c. Bacterial meningitis
- d. Choroid plexus papilloma
- e. Colloid cyst of the third ventricle

Answer: E

118-All of the following facts are correct about extradural (epidural) hematoma (EDH) except:

- a. Skull fracture associated with EDH are three times as common in adults when compared to children
- b. The mortality rate is around 75%
- c. The best time of operation is before the ensuing of the second loss of consciousness which denotes herniation
- d. Most EDHs are arterial in nature
- e. When compared to acute subdural hematoma, the outcome of EDH is much better

Answer: B (overall mortality from EDH is 25%)

119-In complete spinal cord transection, all are expected except

- a. Spinal shock
- b. Loss of sphincteric tone
- c. Paraplegia below the level of the injury
- d. Hypothermia
- e. Bradycardia with hypotension

Answer: C

120-One of the following is LEAST common clinical presentation of conus medullaris syndrome

- a. Urinary incontinence
- b. Knee jerk hyporeflexia
- c. Severe back pain
- d. Erectile dysfunction
- e. Perianal numbness

Answer: B

121-A six-hour newborn infant was diagnosed with upper lumbar myelomeningocele, all of the followings are essential step in the treatment except:

- a. Urgent neurosurgical consultation for surgical repair
- b. Tight compressive dressing over the sac of the myelomeningocele
- c. Nursing infant in prone or lateral position
- d. Arrange for brain imaging
- e. Intravenous antibiotics

Answer: B

122-A patient presented to the ER after sustaining an RTA. On examination, he was found to have significant bilateral upper limb weakness and normal lower limbs. The patient is most likely suffering from:

- a. Hemi transection of the cord
- b. Spinal shock
- c. Anterior cord syndrome
- d. Central cord syndrome
- e. Cauda equina syndrome

Answer: D

123-The compression of the pretectal area in cases of hydrocephalus will cause

- a. Diabetes insipidus
- b. Failure of upward gaze
- c. Mental retardation
- d. Cardiorespiratory arrest
- e. Seizure disorders

Answer: B

124-Which one of the following results from a lesion of the common peroneal nerve at the fibular head?

- a. Weakness of foot planter flexion
- b. Absent ankle jerk
- c. Weakness of foot inversion
- d. Weakness of knee flexion
- e. Weakness of foot dorsiflexion at the ankle (foot drop)

Answer: E

125-Which one of the following imaging is the best initial modality to assess a patient with epilepsy?

- A. CT scan
- B. Four vessel cerebral angiogram
- C. Brain MRI with thin coronal cuts
- D. SPECT
- E. Brain MRA

Answer: C

126-The management of a skull fracture is highly dependent on the type and location of the fracture. Which of the following statements is **true** concerning skull fractures?

- a. Simple non-depressed linear skull fracture is of no significant consequence.
- b. ALL depressed fractures require surgery to elevate the depressed bone regardless of neurologic status.
- c. Basal skull fractures involve the base of the calvarium and suggested by bruising about the eye or the ear.
- d. CSF rhinorrhea associated with a basal skull fracture requires prompt surgical exploration and repair of the defect
- e. Prophylactic antibiotics are NOT indicated in all basal skull fractures associated with CSF rhinorrhea otorrhea.

Answer: C

127-During an emergency surgery for a traumatic brain injury, the brain was found to be edematous and tense, so the surgeon decided not to replace back the cranial bone flap in an attempt to decrease the intracranial pressure, this procedure is called

- a. Cranioplasty
- b. Skull base repair
- c. Decompressive craniectomy
- d. Elevation of depressed fracture
- e. Craniotomy

Answer: C

128-All of the following are complications for SAH except

- a. Rebleeding
- b. Vasospasm
- c. Hydrocephalus
- d. Septic meningitis
- e. Electrolyte disturbances

Answer: D

129-All of the following are complications for SAH except

- a. ECG changes
- b. Hydrocephalus
- c. Electrolyte disturbances
- d. Vasospasm
- e. Cerebrospinal fluid fistula

Answer: E

130-All of the following are complications for SAH except

- a. ECG changes
- b. Hydrocephalus
- c. Electrolyte disturbances
- d. Vasospasm
- e. Hypercoagulable state

Answer: E

131-In severe cranio-cerebral injuries, the recommended measure to reduce the increased pressure, **in their order of safety** are:

- a. Hyperventilation, intermittent mannitol, barbiturate coma and hypothermia
- b. Barbiturate coma, intermittent mannitol, hyperventilation, and hypothermia
- c. Hyperventilation, barbiturate coma, hypothermia, and intermittent mannitol
- d. Hypothermia, hyperventilation, barbiturate coma and intermittent mannitol
- e. Intermittent mannitol, barbiturate coma, hyperventilation, and hypothermia

Answer: A

132-A six-hour newborn was diagnosed with upper lumbar myelomeningocele, all are expected findings except:

- a. Sphincteric disturbances
- b. Hydrocephalus
- c. Arnold Chiari malformation type one
- d. Variable degree of paraparesis
- e. Syringomyelia

Answer: C?

133-After a successful repair of a lumbar myelomeningocele, the chance of developing hydrocephalus is approximately:

- a. 10%
- b. 80-90%
- c. 20-50%
- d. 100%
- e. 50-70%

Answer: C???

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

- a. New onset of seizures with the headache
- b. New headache which is sudden and severe
- c. Fever
- d. Similar previous attacks
- e. Blurred vision

Answer: D

135-A 56-year-old man who sustained a road traffic accident, presented to the emergency department with neck pain and left sided body weakness, his physical examination revealed 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

136-A lumbar puncture showing a clear CSF with normal pressure, 20 WBC (mainly lymphocytes), protein= 63mg%, glucose 65mg% (blood sugar=105mg%) and a negative gram stain is in favor of which of the following?

- a. Viral meningitis
- b. Fungal meningitis
- c. Tuberculous meningitis
- d. Subarachnoid hemorrhage
- e. Bacterial meningitis

Answer: A

137-Which one of the following leads to fever/confusion with neck stiffness and a lumbar puncture showing 9 WBC with a lymphocyte predominance, protein=63mg% and glucose=65mg% (blood sugar=105mg%) and a negative gram stain?

- a. Fungal meningitis
- b. Subarachnoid hemorrhage
- c. Viral meningoencephalitis
- d. Bacterial meningitis
- e. Tuberculous meningitis

Answer: C

138-The commonest cause of sciatica after successful lumbar disc surgery is:

- a. Spinal instability
- b. Recurrence of disc prolapse
- c. Postoperative disc space infection
- d. Spinal epidural hematoma
- e. Adjacent segment degeneration

Answer: B

139-A 45-year-old female patient was admitted to hospital because of progressive history of dorsal pain, paraparesis, and lower limb hypoaesthesia of two-year duration. The most likely diagnosis is

- a. Spinal neurofibroma
- b. Spinal epidural breast metastases
- c. Transverse myelitis
- d. Spinal meningioma
- e. Spinal arteriovenous malformation

Answer: D

140-About the anatomy of the spine, all are true except

- a. The ligamentum flavum covers the interlaminar space
- b. The disc is named after the vertebrae above and that below
- c. Ligamentum flavum is absent in the cervical spine
- d. The disc prolapse usually compresses the traversing nerve root at the same level
- e. The foramen is named after the exiting nerve root

Answer: C

141-About the anatomy of the spine, which is true?

- a. The ligamentum flavum covers the anterior vertebral bodies
- b. The disc is named after the vertebrae above
- c. Ligamentum flavum is absent in the cervical spine
- d. The disc prolapse usually compresses the exiting nerve root at the same level
- e. The foramen is named after the exiting nerve root

Answer: E?

142-The percentage of low-risk back pain patients who will improve with conservative non-surgical treatment in one month is :

- a. 30%
- b. 60%
- c. 100%
- d. 90%
- e. 10%

Answer: B

143-A 35-year-old male patient presented to the ER with one day history of severe low back pain that was radiating to the right lower limb pain down to the big toe and associated with paresthesia. The power in his right ankle dorsiflexion was 1/5 (MRC scale). The best investigation should be:

- a. Nerve conduction study and EMG
- b. Lumbar spine CT
- c. Myelogram
- d. Lumbar spine MRI
- e. Lumbosacral X-ray

Answer: D

144-Concerning epilepsy surgery, all of the following statements are true except:

- a. Epilepsy surgery is a professional decision of the multidisciplinary team
- b. For patients with seizures younger than 25 years old, the most common age group are children below the age of 5 years old
- c. Refractory seizure in the adult patients include all patients treated with 3 antiepileptic drugs including one of the new generation drugs, for a minimum period of 6 months.
- d. Two thirds of refractory seizures have functional seizures
- e. The prevalence of epilepsy around the world is about 1% of the population.

145-The most common type of intracranial aneurysm is ***

- a. Saccular
- b. Mycotic
- c. Pseudoaneurysm
- d. Traumatic
- e. Fusiform

Answer: A

146-All of the following are correct about the ICP except:

- a. Loss of consciousness is a late sign of increased ICP.
- b. The relation between the pressure inside the skull and its volume is a linear relationship.
- c. The ICP will only rise after all compensatory mechanisms have been exhausted.
- d. A chronic high ICP could be detected on plain skull x-rays.
- e. Lumbar puncture cannot be used to measure the ICP if the brain CT scan is abnormal.

Answer: B

147-In a patient with cervical disc prolapse, one of the following physical signs is suggestive for cervical myelopathy:

- a. Torticollis
- b. Positive spurling test
- c. Atrophy of the shoulder muscles
- d. Hoffman sign
- e. Inverted supinator jerk

Answer: D

148-Pure radicular clinical manifestation will include all these except

- a. Sciatica
- b. Decreased deep tendon reflexes
- c. Weakness
- d. Spasticity
- e. Muscle atrophy

Answer: D

149-Pure radicular clinical manifestation will include all these except

- a. Weakness
- b. Sciatica
- c. Muscle atrophy
- d. Babinski sign
- e. Decreased deep tendon reflexes

Answer: D

150-Which one of the following is true about spinal tumors?

- a. Schwannomas are considered intramedullary tumors
- b. The most common spinal tumors are metastases
- c. Most prostatic metastases occur in the thoracic spine
- d. Ependymomas are usually of high grade
- e. Meningiomas tend to be associated with NF1

Answer: B

151-Regarding fractures of the skull, all of the following are true except:

- a. Linear fractures do not require treatment unless associated with complications
- b. Compound depressed skull fractures require emergency treatment
- c. Basilar skull fractures are more likely to injure cranial nerves than vault fractures
- d. All basilar skull fractures will develop CSF leak
- e. Pond fractures of babies usually do not require elevation.

Answer: D

152-Regarding acute subdural hematoma, which is wrong?

- a. The blood clot develops between the brain and outer layer of the meninges
- b. The blood clot makes the major contribution to the clinical picture
- c. In general, has a worse prognosis than extradural hematoma
- d. The surgical treatment includes mainly evacuation of the hematoma and excision of the lacerated brain via a craniotomy
- e. The source of bleeding is the bridging veins

Answer: B?

153-A right-sided disc herniation at the L5-S1 level typically may cause:

- a. Low back pain and right sciatica.
- b. Weakness of dorsiflexion of the right foot.
- c. A diminished or absent left ankle jerk.
- d. Diminution of sensation over the medial aspect of the right foot, including the great toe.
- e. Weakness of dorsiflexion of the left foot.

Answer: A

154-Chondromas are tumors arising from remnants of:

- a. Ectopic Cord tissue.
- b. Notochord tissue.
- c. Rathke's pouch.
- d. Ectopic lymphatic tissue.
- e. Endoderm tissue

Answer: B

155-Galactorrhea, Amenorrhea syndrome is most commonly caused by:

- a. Chromophobe adenoma.
- b. Prolactinoma.
- c. Chorionic Carcinoma.
- d. Basophil adenoma.
- e. Astrocytoma.

Answer: B

156-The most common location for spontaneous intracerebral hemorrhage secondary to hypertension is:

- a. Cerebellum
- b. Cerebral white matter
- c. Basal ganglia
- d. Brainstem
- e. Cerebral gray matter

Answer: C

157-Which of the following lesions is not one of the cutaneous stigmata of occult spinal dysraphism?

- a. Midline lumbar capillary hemangioma.
- b. Focal hairy patch over the thoracolumbar spine.
- c. Dermal sinus located above the midsacrum.
- d. Café-au-lait spot over the thoracolumbar spine
- e. Midline subcutaneous lipoma

Answer: D

158-Arteriovenous Malformations of the Brain are most commonly seen in the distribution of

- a. Anterior cerebral artery.
- b. Basilar artery.
- c. Middle cerebral artery
- d. Posterior cerebral.
- e. Vertebral artery

Answer: C or D??

159-Which of the following statements is true?

- a. The usual symptomatic lumbar disc herniation occurs in a far lateral direction
- b. Approximately 95 percent of lumbar disc herniations occur at the L5-S1 or L2-L3 level
- c. Sciatica is a term used to denote pain felt along the distribution of the sciatic nerve:
- d. Weakness of dorsiflexion of the foot is a mechanical sign of a lumbar disc herniation
- e. X-ray films of the lumbosacral spine are obtained to demonstrate the presence and location of a lumbar disc herniation

Answer: C

160-Extradural hematoma is due to bleeding from all the following sources except:

- a. Straight sinus
- b. Transverse sinus.
- c. Diploic Veins.
- d. Middle meningeal artery.
- e. Superior sagittal sinus

Answer: C??

161-Patients who have survived a subarachnoid hemorrhage from a ruptured intracranial aneurysm are at risk for all except:

- a. Re-hemorrhage
- b. Cerebral artery vasospasm
- c. Ischemic stroke
- d. Hydrocephalus
- e. Cardiac arrhythmia

Answer: C

162-Which of the following is not a component of lower motor neuron lesion?

Select one:

- a. Disuse atrophy
- b. Absent deep tendon reflexes.
- c. Fasciculations and fibrillations.
- d. Hypotonia
- e. Hyporeflexia

Answer: A

163-Which of the following is NOT transmitted via the dorsal column system?

- a. Position
- b. Vibration
- c. Pain
- d. Fine touch
- e. Pressure

Answer: c

164-Which one of the following is not a component of Horner's syndrome?

- a. Miosis
- b. Enophthalmos.
- c. Anhidrosis
- d. Exophthalmos
- e. Correctible ptosis.

Answer: D

165-With the eyeball adducted (turned inward), the depression or downward movement of the eyeball is mediated through:

- a. Superior oblique muscle
- b. Inferior oblique muscle
- c. Inferior rectus muscle
- d. Medial rectus muscle
- e. Lateral rectus muscle

Answer: A

166-Which of the following is NOT a characteristic of subacute subdural hematoma?

- a. Compression of the lateral ventricle on the side of the hematoma
- b. Effaced sulci
- c. White matter buckling
- d. Thick cortical mantle
- e. Insular ribbon sign

Answer: E

167-In spite of the best treatment, the highest mortality is associated with:

- a. Extradural Hematoma
- b. Acute Subdural Hematoma
- c. Chronic Subdural Hematoma
- d. Subacute Subdural Hematoma
- e. Traumatic SAH

Answer: B

168-Surgery is usually not the primary treatment option in:

- a. Prolactinoma
- b. Microadenoma with acromegaly
- c. Nonfunctioning pituitary adenoma
- d. Invasive pituitary adenoma
- e. Microadenoma with Cushing

Answer A

169-Which of the following is NOT true concerning subarachnoid hemorrhage?

- a. A large amount of hemorrhage in the basilar cisterns could be a ruptured aneurysm
- b. Subarachnoid hemorrhage most commonly occurs over the cerebral convexity
- c. Subarachnoid hemorrhage can occur adjacent to a cerebral contusion
- d. On CT, the hemorrhage appears as focal hypodensity in sulci and fissures
- e. Subarachnoid hemorrhage occurs with injury of small arteries or veins on the surface of the brain

Answer: D

170-Acute onset of the "worst headache of my life" is typical of.

- a. Intracerebral hemorrhage
- b. Subarachnoid hemorrhage
- c. Cerebellar hemorrhage
- d. Temporal arteritis
- e. Brain abscess

Answer: B

171-Bacterial brain abscesses are usually treated by:

- a. Empiric antibiotics without biopsy
- b. Oral antibiotics for four weeks
- c. Radical surgical excision
- d. A two-week course of antibiotics
- e. Stereotactic aspiration followed by 4-6 weeks of IV antibiotics

Answer: E

172-A patient's blood pressure is 120/60mmHg and ICP reading is 30mmHg. What is his cerebral perfusion pressure (CPP)?

- a. 50 mm Hg
- b. 30 mm Hg
- c. 90 mm Hg
- d. 60 mm Hg
- e. 70 mm Hg

$$\text{MAP} = \text{DP} + 1/3(\text{SP} - \text{DP})$$

Answer: A

173-All of the following arteries are branches of the basilar artery except the:

- a. Pontine Arteries
- b. Middle Cerebral Artery
- c. Posterior Cerebral Artery
- d. Superior Cerebellar Artery
- e. AICA

Answer: B

174-Which of the following is NOT a sign indicating raised intracranial Pressure?

- a. Sutural diastasis.
- b. Beaten silver appearance
- c. Erosion of posterior clinoid process
- d. Bone vascular invagination.
- e. Intracranial Calcification.

Answer: E

175-'Cushings triad' in relation to raised intracranial pressure includes:

- a. Headache, Vomiting and visual loss.
- b. Pupillary dilatation, hypotension, and tachycardia.
- c. Decerebration, hypotension, and tachycardia.
- d. Pupillary dilatation, hemiplegia, altered sensorium.
- e. Bradycardia, Bradypnea, and Hypertension.

Answer: E

176-Which Spinal Cord Injury should Undergo Surgical Treatment?

- a. Concussion.
- b. Contusion.
- c. Compression.
- d. Complete anatomic rupture.
- e. Hematomyelia.

Answer: E

177-The two lateral ventricles are separated by:

- a. Falx cerebri.
- b. Septum pellucidum.
- c. Cavum vergae.
- d. Corpus callosum.
- e. Tentorium.

Answer: B

178-Which of the following symptoms Is Not Typical for Subarachnoid Hemorrhage In Rupture Of Arterial Aneurism Of Cerebral Vessels?

- a. Kernig's symptom
- b. Brudzinski's symptom
- c. Occipital stiffness
- d. Paresis of the oculomotor nerve
- e. Horner's syndrome.

Answer: E

179-Modic type two changes are: is this included ?

- a. Low signal T1 and High signal T2
- b. Low signal T1 and Low signal T2
- c. High signal T1 and High signal T2
- d. High signal T1 and Low signal T2
- e. High signal T1, High signal STIR, and Low signal T2.

Answer: A

180-A 36-year-old man developed neck and left arm pain. He noted paresthesia in the left index and long fingers. He was found to have weakness of the left triceps muscle and a diminished left triceps jerk. His left-sided disc herniation is most likely to be at:

- a. C3-C4
- b. C4-C5
- c. C5-C6
- d. C6-C7
- e. C7-T1

Answer: D

181-Which of the following is not a branch from the external carotid artery?

- a. Ophthalmic artery.
- b. Ascending pharyngeal artery.
- c. Lingual artery.
- d. Facial artery
- e. Superior thyroid artery.

Answer: A

182-The definition of low back pain in epidemiological studies is which one of the following statements:

- a. Is any pain between T12 and the sacrum
- b. Is any midline pain between the sacroiliac joints and the superior margin of L1
- c. Is any pain between T10 and the sacrum
- d. Is any midline pain between T12 and the sacroiliac joints
- e. Is any pain between the costal margin and the buttock crease.

Answer: E

183-Inferior sagittal sinus drains into:

- a. Sigmoid sinus
- b. Inferior petrosal sinus.
- c. Transverse sinus.
- d. Straight sinus
- e. Superior sagittal sinus.

Answer: D

184-The commonest site for extradural hematoma is:

- a. Subfrontal region.
- b. Parietal region.
- c. Parafalcine region.
- d. Temporal region.
- e. Posterior Fossa.

Answer: D

185-What statement better describes Normal Pressure Hydrocephalus (NPH)?

- a. NPH is a common condition of newborns and never occurs in teenagers.
- b. Patients with NPH, the ventricles enlarge but the pressure of the CSF is less than normal range.
- c. NPH is a life-threatening condition and should be treated as an emergency.
- d. Diagnostic criteria are easily applied due to knowledge of the underlying pathophysiology
- e. The symptom might improve with shunting is incontinence then gait disturbance & lastly dementia

Answer: E

185-The part of the neuron that receives messages from other cells is called:

- a. Axon.
- b. Soma
- c. Schwann cell.
- d. Dendrites
- e. End plate.

Answer: D

186-In children 'Setting sun' is most commonly seen in:

- a. Craniopharyngiomas.
- b. Medulloblastoma.
- c. Hydrocephalous.
- d. Head Injuries.
- e. Brain abscess

Answer: C

187-Management options in the treatment of intracranial hypertension secondary to trauma include all of the following except:

- a. High dose cortical steroids.
- b. Mild sedation
- c. External ventricular drainage
- d. Use of osmotic diuretics
- e. Decompressive craniectomy

Answer: A

188-Cerebrospinal fluid is formed by:

- a. Active secretion.
- b. Filtration.
- c. Both, Active secretion and Filtration.
- d. Physical osmosis.
- e. Diffusion.

Answer: C

189-Which statement is wrong regarding head trauma?

- a. Normal ICP is 10mmHg.
- b. A cerebral perfusion pressure of 70mmHg is associated with bad outcome.
- c. Cushing reflex will cause bradycardia and hypotension.
- d. The midbrain passes thru the aperture of tentorium
- e. The uncus is the medial part of the temporal lobe.

Answer: C

190-Myelomeningoceles are congenital malformations of the spinal cord. Which of the following findings are not commonly associated?

- a. Mandatory urinary incontinence
- b. Chiari II malformation
- c. A midline dorsal spinal mass easily noted at birth
- d. Skin, bone, and Dural defects superficial to the neural placode
- e. Hydrocephalus

Answer: A

191-Cephalohematoma is a?

- a. Subcutaneous hematoma
- b. Subaponeurotic hematoma
- c. Subperiosteal hematoma
- d. Subdural hematoma
- e. Subtentorial hematoma

Answer: c

192-The proper method for surgical removal of a chronic subdural hematoma in an adult patient is?

- a. Burr hole and subdural drain insertion for evacuation
- b. Craniotomy and evacuation
- c. Endovascular removal
- d. Stereotactic removal
- e. Puncture and needle aspiration

Answer: A

193-Which one of the following is not a shunting procedure for hydrocephalus?

- a. Ventriculo-cystic shunt (to the urinary bladder)
- b. Ventriculo-peritoneal shunt (to the peritoneal cavity)
- c. Ventriculo-pleural shunt (to the pleural space)
- d. Ventriculo-atrial (to the heart)
- e. Ventriculo-subarachnoid shunt (to the subarachnoid space)

Answer: A

194-Which one of the following best describes Lundberg (A) ICP (Intra-cranial pressure) waves?

- a. Periodic self-limited increase in ICP (20-50 mmHg) occurring every (1 to 2 minutes) and lasting several seconds
- b. Periodic self-limited increase in ICP (\leq 20 mmHg) occurring every (4 to 8 minutes)
- c. Periodic sustained increase in ICP (\leq 10 mmHg) lasting for (1 to 5 minutes)
- d. It is a normal ICP wave form and it is of no pathological significance
- e. Periodic sustained increase in ICP (\geq 50 mmHg) lasting for (5 to 20 minutes)

Answer: E

195-Which of the following brain tumors can disseminate through CSF (drop metastasis) to the spine?

- a. Oligodendroglioma
- b. Pilocytic Astrocytoma
- c. Diffuse astrocytoma
- d. Medulloblastoma
- e. Vestibular schwannoma

Answer: D

196-Which of the followings is wrong about spinal tumors?

- a. The commonest tumor is metastases
- b. Meningiomas tend to be associated with neurofibromatosis type I
- c. Ependymomas are more common than astrocytomas????(Ependymoma most common in adults, Astrocytoma most common in children)
- d. Schwannomas are more easily excised than neurofibromas
- e. Most prostatic metastases occur in the lumbar spine

Answer: B

197-A prolapsed intervertebral disc at L3-L4 level in a far lateral direction will produce?

- a. L4 radiculopathy
- b. L3 radiculopathy
- c. L5 radiculopathy
- d. L2 radiculopathy
- e. Cauda equina syndrome

Answer: B

198-Cranial meningiomas arise from?

- a. Dura
- b. Neuroblast
- c. Pia matter
- d. Periosteum
- e. Arachnoid cap cells

Answer: E

199-One of the following (must) be evaluated by a conventional cerebral angiogram?

- a. Meningitis
- b. Cerebellar tumor
- c. Cerebral tumor
- d. Spinal tumor
- e. Spontaneous subarachnoid hemorrhage

Answer: E

200-All of the following are intramedullary spinal tumors except?

- a. Plasmacytoma
- b. Ependymoma
- c. Astrocytoma
- d. Hemangioblastoma
- e. Lipoma

Answer: E

201-Acute traumatic intracranial hematomas frequently manifest with?

- a. Hypersalivation
- b. Hyperhydrosis
- c. Seizures
- d. Acute adrenal failure
- e. Toxic shock

Answer: A

202-The typical appearance of an acute extradural hematoma on non-contrasted CT-scan of the head is?

- a. Hypodense lens shape
- b. Hypodense crescentic shape
- c. Hyperdense crescentic shape
- d. Hyperdense lens shape
- e. Isodense lens shape

Answer: D

203-Which of the following nerve roots is involved in the ankle jerk?

- a. L1
- b. L4
- c. S3
- d. S1
- e. L5

Answer: D

204-Source for formation of subdural hematoma?

- a. Anterior choroidal artery
- b. Pial veins
- c. Choroid plexus of the lateral ventricles
- d. Choroid plexus of the 4th ventricle
- e. Arteries of the circle of Willis

Answer: B

205-Transition from prolonged coma to a stable or a transient vegetative state is seen after?

- a. Brain concussion
- b. Diffuse axonal injury of the brain
- c. Brain tumour
- d. Subgaleal hematoma
- e. Epidural hematoma

Answer: B

206-In which type of post traumatic intracranial hemorrhage a "lucid interval" is most likely to be seen?

- a. Cerebral contusion
- b. Brain concussion
- c. Epidural hematoma
- d. Subdural hematoma
- e. Subarachnoid hemorrhage

Answer: C

207-Most Common source for the formation of Epidural hematomas?

- a. Cerebral arteries and veins
- b. Choroid plexus of the 4th ventricle
- c. Galen's Vein
- d. Diploic vessels of the cranial bones
- e. Middle meningeal arteries

Answer: E

208-Berry aneurysms are usually located in the circle of Willis. The commonest site is?

- a. The basilar tip
- b. The posterior cerebral artery
- c. The anterior communicating artery
- d. The middle cerebral artery bifurcation
- e. The internal carotid artery bifurcation

Answer: C

209-What is the most common incomplete spinal cord injury type?

- a. Anterior Cord
- b. Central Cord
- c. Posterior Cord
- d. Cauda Equina
- e. Brown Sequard

Answer: B

210-All the following sites may be used for ICP (intracranial pressure) monitoring except?

- a. Subdural
- b. Diploic (skull)
- c. Brain parenchyma
- d. Epidural
- e. Intraventricular

Answer: B

211-According to Glasgow Coma Scale, A severe craniocerebral traumatic injury would score?

- a. 1-2 Points
- b. 3-7 Points
- c. 8-10 Points
- d. 11-13 Points
- e. 14-15 Points

Answer: B

212-Which of the following brain tumors has the best prognosis in general?

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

Answer: D

213-One of the following spinal cord tumors is considered most likely to be found in intradural intramedullary location?

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

Answer: A

214-Bradycardia, hypertension, Hemiparesis and anisocoria are classic presentations of?

- a. Carotid cavernous fistula
- b. Arnold-Chiari Malformation
- c. Spinal cord tumor
- d. Compression vascular neuropathy
- e. Traumatic intracranial hematoma

Answer: E

215-Which of the following is not a characteristic of the Brown-Sequard syndrome?

- a. Contralateral loss of temperature sensation 2-3 segments below the lesion
- b. Ipsilateral loss of position and vibratory sense below the lesion level
- c. Contralateral paralysis below the lesion level
- d. Ipsilateral pyramidal signs
- e. Ipsilateral complete loss of sensation at the lesion level

Answer: C

216-Which of the following is not a feature of the cauda equina syndrome?

- a. Flaccid paresis
- b. Hypo-reflexia
- c. Hyper-reflexia
- d. Symmetric neurological signs
- e. Muscle atrophy

Answer: C

217-One of the following is a known method for treatment of hydrocephalus?

- a. Perforation of the septum pellucidum
- b. Dissection of the cerebellar vermis
- c. Puncture of the corpus callosum
- d. Ventriculoperitoneal Shunt
- e. Arteriovenous shunting

Answer: D

218-Which of the following is not seen in association with type II Chiari malformations?

- a. Myelomeningocele
- b. Hydrocephalus
- c. Syringomyelia
- d. Cerebellar herniation through foramen magnum
- e. A large posterior fossa cyst in communication with the fourth ventricle

Answer: E

219-A fifty-four old female patient presented to the emergency department with sudden onset headache associated with repeated vomiting. Her level of consciousness was 14/15 according to GCS. She had a significant neck stiffness, which of the following steps is wrong: ***

- a. Urgent CT-scan of the brain
- b. Endotracheal intubation and hyperventilation
- c. Lumbar puncture if the CT-scan revealed no abnormal findings
- d. Ophthalmological examination may be normal
- e. Admission to an intensive care unit for observation

Answer: B

220-Acute Subdural hematomas have more mortality and morbidity than acute extradural hematomas because?

- a. They are usually bigger than extradural hematomas
- b. Because they always originate from the large superior sagittal sinus
- c. Because they are always bilateral
- d. Because they are usually associated with severe brain injury
- e. Because they are nearer to the cortex than extradural hematomas

Answer: D

221-After the antenatal diagnosis of a Myelomeningocele in a pregnant woman, one of the following steps is false:

- a. Planning for the mode of delivery
- b. Supplement with folic acid can correct the anomaly in the fetus
- c. Psychological support for the family(counseling)
- d. In some centers in-utero surgery can be offered
- e. The alpha fetoprotein is usually raised in the serum of the pregnant mother

Answer: B

222-Which of the following is considered an absolute contraindication for a lumbar puncture?

- a. High blood pressure
- b. Pregnancy
- c. Acute urinary retention
- d. Brain space occupying lesion
- e. Lumbar disc prolapse

Answer: D

223-Acute intracranial hematomas are those which form during the first?

- a. 7 days
- b. 14 days
- c. 10 Days
- d. 3 days
- e. 21 days

Answer: D

224-All of the following can cause non-communicating hydrocephalus except?

- a. Fourth ventricle ependymoma
- b. Colloid cyst of the third ventricle
- c. Choroid plexus papilloma of the lateral ventricle
- d. Cerebellar pilocytic astrocytoma
- e. Brain stem glioma

Answer: C

225-Epidural hematomas are usually limited by?

- a. Cerebral cortex
- b. Choroid plexuses
- c. Falciform Processes
- d. Tentorium cerebelli
- e. Skull sutures

Answer: E

226-All the following are causes of loss of consciousness in subarachnoid hemorrhage except:

- a. Increase of intracranial pressure beyond cerebral perfusion pressure
- b. Destruction of important areas of the brain stem
- c. Hypovolemia
- d. The occurrence of seizures
- e. Lateral trans tentorial herniation

Answer: C

227-One of the following tumors shows high incidence of calcification?

- a. Pituitary adenoma
- b. Anaplastic astrocytoma
- c. Oligodendroglioma
- d. Ependymoma
- e. Medulloblastoma

Answer: C

228-Myelomeningoceles are congenital malformations of the spinal cord, which of the following findings is not commonly associated with it?

- a. Hydrocephalus
- b. Chiari II malformation
- c. A midline lumbar or lumbosacral mass easily noted at birth
- d. Skin, bone and dural defects superficial to the neural placode
- e. Upper limb weakness

Answer: E

229-Otorrhea most often occurs in fractures of?

- a. Petrous part of the temporal bone
- b. Frontal Sinus
- c. Cribriform plate of the ethmoid
- d. Sphenoidal sinus
- e. Lacrimal bone

Answer: A

230- One of the following symptoms raises suspicion of hydrocephalus in newborns

- a. Increased motor activity
- b. Flaccidity
- c. Disproportional increase in the size of the infant's head
- d. Increased excitability
- e. Good feeding

Answer: C

231-A patient with benign intracranial hypertension, which of the following is not true?

- a. OCPs is a risk factor of BIH
- b. The patient may be treated by acetazolamide for 6 weeks
- c. Thecoperitoneal shunt is preferred over VP shunt because the ventricles are small
- d. Diagnosis follows Dandy criteria

Answer: B

232-Which of the following should not be done in the evaluation of intractable epilepsy?

- a. Neurological examination
- b. Psychiatric evaluation
- c. Psychological examination
- d. Endocrinological examination

Answer: D

233-A patient with head injury has a GCS of 14/15, which of the following shouldn't be part of his management?

- a. Endotracheal intubation and hyperventilation
- b. Admission for ICU for observation
- c. Urgent CT scan of the brain
- d. Mild analgesia to relieve the pain

Answer: A

234-Which of the following is not true about skull fractures?

- a. Linear fractures shouldn't be treated unless complicated
- b. Compound depressed fractures are treated as an emergency
- c. All cases of basal skull fractures are associated with CSF leak (only 4 % of cases)

Answer: C

235-20. A child had VP shunt surgery when he was 40 days old, presented with fever and hypoactivity, which of the following is true?

- a. Once infection is established, oral antibiotics are enough
- b. Parenteral antibiotics is the only effective treatment in this case
- c. CT scan has a diagnostic role to exclude infection
- d. Do CSF examination if other causes of fever are excluded

Answer: D

1. The most common primary brain tumor in adult is:

- a. Glioblastoma
- b. Ependymoma
- c. Meningioma
- d. Medulloblastoma
- e. Pituitary adenoma

Answer: A

2. The most common route of metastasis in spinal tumors is:

- a. Spinal seeding through meninges
- b. Batson plexus (hematogenous spread)
- c. Direct spreading
- d. Lymphatic spread

Answer: B

15. Before epileptic surgery, all of the following investigations should be done, except:
- a. inter-ictal EEG
 - b. video EEG
 - c. brain MRI
 - d. SPECT
 - e. WADA test

Answer: E

16. All of the following are complications of vagal nerve stimulation, except:
- a. dysphonia
 - b. dysphasia
 - c. dyspnea
 - d. cough
 - e. hoarseness

Answer: B?

19. In severe head injuries, which of the following is done to decrease ICP in order of safety?
- a. IV mannitol, hyperventilation, barbiturate coma, hypothermia?
 - b. hyperventilation, mannitol, barbiturate coma and hypothermia
 - c. barbiturate coma, mannitol, hyperventilation

Answer: B

- 15- a question about myelomeningocele: what is wrong:
- a- 85% of myelomeningocele has hydrocephalus.
 - b- 15% of meningocele have hydrocephalus.
 - c- most of patient with myelomeningocele have Arnold Chiari II
 - d- all of the above are correct

Answer: D

17. wrong about myelomeningocele
- a. associated with agenesis of corpus callosum.
 - b. associated with Arnold- Chiari malformation.
 - c. 85% associated with aqueductal stenosis.
 - d. main pathology is the absence of vertebral arch.
 - e. associated with tethered cord.

Answer: C

19. increase in ICP, all true except:

- a. Wide sella turcica
- b. Eroded clenoid process
- c. Thumb prints
- d. Enlarged skull

Answer: D

60. Head trauma with rhinorrhea, otorrhea, which is wrong:

- A. Treatment of choice is LP shunt.
- B. do lumbar drain
- c. most of them resolve spontaneously
- d. Diagnosed as CSF leak by B2 transferrin

Answer: A

61. all are prognostic factors of cerebral aneurysm except:

- a. age
- b. general medical status
- c. size
- d. Hess and hunt
- e. Fischer

Answer: E

63. Epilepsy surgery, all are good prognostic signs except:

Localized, temporal lobe, central

66. wrong about 3rd ventriculostomy:

- a. infection less than shunt
- b. need to revise is less
- c. bleeding is more

68. most common indication for surgery

- a. neurological deficit
- b. intractable sciatica
- c. cauda equina surgery

66- Percentage of brain tumors within all

body tumors:

- a- 2%
- b- 4%
- c- 6%
- d- 8%
- e- 10%

Answer: A

67- Head trauma in RTAIs:

- a- 20%
- b- 40%
- c- 60%
- d- 80%
- e- 90%

Answer: C

21. Concerning epidural hematoma all the following statements are true except:

- a- Characteristic biconvex shape
- b- Represent 3 % of all head injuries.
- c- Rare to be seen before 2 years and those older than 60 years
- d- Have the characteristic lucid interval in 2/3 of cases
- e- Most common in the parietal lobe

Answer: E

23- medulloblastoma wrong

- a- radiosensitive
- b- radiate whole cord
- c- chemo-resistant

Answer: C

23- patient with headache, vomiting, stupor, and papilledema...**not likely** caused by the following tumor (I think this question was supposed to be with a picture)

- a- 3rd ventricle
- b- choroid papilloma
- c- pseudotumor cerebri
- d- temporal

Answer: ?

76- fracture to the body of vertebra most likely by

- a- flexion
- b- extension
- c- spinal stenosis
- d- spondylolisthesis

Answer: A

78- Not a risk factor for saccular aneurysm?

- a- Marfan
- b- down
- c- HTN
- d- atherosclerosis

Answer: B?

80- Wrong about pituitary adenoma

- a- microadenoma less than 1 cm
- b- Prolactinoma is the most common type of pituitary adenoma
- c- more common in 40- 60 year old

Answer: C

81- Wrong about muscle strength

- a- 0 -> no muscle contraction
- b- 1 -> fasciculation of the muscle
- c- 2 -> Against gravity
- d- 5 -> Full strength

Answer: C

Grade	Muscle Power
0 - Zero	No muscle contraction is seen
1 - Trace	Flicker or Trace of contraction is seen
2 - Poor	Active movement only with gravity eliminated
3 - Fair	Active movement against gravity but not resistance
4 - Good	Active movement against gravity with some resistance
5 - Normal	Active movement against gravity with full resistance

82- Question about brain contusions

- a- less likely to happen in children
- b- frontal lobe most commonly
- c- acceleration-deceleration

Answer: A

83- MRI is better than CT by all except
Detecting hair fracture at temporal bone

2- Incidence of rupture cerebral aneurysm is:

- a- 15-20/100000/year
- b- 10-15/100000/year
- c- 6-12/100000/year

answer = c ?

5- One is false about Froin's syndrome:

- a- Increase cell in CSF
- b- Increase protein
- c- Xanthochromic
- d- Clots

Answer: A

6- Patient with complete block at T5 compression in jugular vein and release of pressure during LP:

- a- Rapid increase and rapid full
- b- Rapid increase and no fall
- c- No increase and rapid full
- d- No increase and on fall

8- Cushing's syndrome can be due to all except:

- a- Adrenal tumor
- b- Pituitary tumor
- c- Lung tumor
- d- Breast CA
- e- Teratogenic

Answer: E

40- In lateral herniation the structure damaged is:

- a- Uncus
- b- Tonsils
- c- Brainstem
- d- Cerebellum

Answer: A

5- Which is correct about saccular aneurysm?

- a- Most common aneurysm
- b- Multiple in 20% of cases
- c- Pathology is defective external lamina
- d- Mostly at bifurcation of arteries in the base of the brain
- e- 90% in anterior circulation

Answer:

7- The most common posterior fossa tumor with calcification is:

- a- Ependymoma
- b- Medulloblastoma
- c- Pilocystic astrocytoma
- d- Choroid plexus papilloma

8- A 45-year-old female, complaining of progressive back pain, Lower Limb paraparesis and Lower Limb hypoesthesia over 2 years. The most likely is:

- a- Breast cancer metastasis
- b- Spinal meningioma
- c- Spinal neurofibroma

Answer: B

Newborn known to have Mongolian spot what to do?

- Reassurance
- spinal MRI
- Prepare for surgery

Answer: A

7- Jefferson fracture:

- a. Is a fracture of C1 vertebra**
- b. Fracture of odontoid
- c. Fracture of C7

Answer: A

54. depressed fracture--> do not elevate if

Less than the thickness of adjacent bone

- cosmetic

71- about meningioma wrong

- a- mets is common**
- b- estrogen receptors

73- dandy walker wrong

- a- small post fossa

21-cause of cervical myelopathy in age above 50?

vit b12 deficiency

cervical spondylosis

infarct to spinal cord

23-Nerve supply of of abductor pollicis brevis

Median, ulnar, radial, musculospiral, axillary

24-not associated GBS:

Hyperreflexia

High and low blood pressure

25-Brown Sequard at T6 wrong:

Loss of pain sensation 2 levels above lesion

Dissociative sensation

90% can walk

**The following questions had no MCQs and were not corrected.
Continue at your own risk.**

- Most common tumor with Calcifications:
oligodendroglioma
- Wrong about brain tumors:
ependymoma is the most common cancer in adults.
- Not neuroepithelial origin:
hemangioblastoma
- Complication of shunt:
extradural hematoma
- Wrong about refractory seizures:
frontal lobe most common origin
- Neck pain, how to confirm disc:
cervical MRI.
- About aneurysm management:
antifibrinolytics prevents rebleeding
- Wrong about Spinal canal stenosis:
neurological symptoms are common.
- Cauda equine:
positive Babinski
- Not a sign of increased intracranial pressure:
absent Dural sinuses on CT
- Sudden onset Headache, seizure, no LOC, twice vomiting, Dx?
SAH
- What's wrong statement?
Female with benign spine tumor, it's most commonly due to schwannoma.
- Concerning epilepsy surgery, all the following are correct except:
Epileptic surgery associated morbidities are higher than that of other neurosurgical procedures.
- In subarachnoid hemorrhage, which one of the following is wrong:
Berry aneurysm is symptomatic in most cases
- Most common location of intracranial meningioma:
Parasagittal**
- Wrong about SAH:
LP is the only way to detect blood**
- Medulloblastoma, which is NOT A SIGN OF poor prognosis:
no evidence of residual tumor after resection.
- WHO classification of astrocytoma III (three):
anaplastic

- A 60-year-old female patient ... gradual pain over the past 2 months spinal meningioma
- Most common affected cranial nerve by injury: olfactory, abducent, facial, vagus,...

"The olfactory nerves. These are the most affected and this may be as result of either a fracture through the anterior cranial fossa, directly affecting the tracts, or tearing of the delicate nerve rootlets passing through the cribriform plate caused by the sudden brain movement, particularly from a blow to the back of the head."

- Neurosurgery essentials classic extradural hematoma: LOC then period of Lucid interval
- Subdural hematoma has poorer prognosis than epidural hematoma: because its associated more severe head injury
- Saccular aneurysm wrong: external lamina defect
- All the following is indicated for hydrocephalus: vp shunt, 3rd ventricle fenestration, intermittent drainage (all of the above)
- Which of the following are indications for disk surgery: cauda equine compression, progressive deficit, severe pain affecting life (All of the above)
- Which of the following is false about Myelomeningocele: Surgical repair reverses the neurological deficit.
- What is an absolute indication for surgery in skull fracture.....???

<https://drive.google.com/file/d/1avELCwlORu-0Rb2W9rQIMKDNlbUBLJBA/view?usp=sharing>

- Ankle dorsiflexion + foot eversion (foot drop), which nerve? Common Peroneal nerve

<https://drive.google.com/file/d/1BXgZe008Q4LCT0Z-zQxjsFgg7-OAsUk4/view?usp=sharing>

- Which of the following is epileptogenic: fracture with parenchymal disruption+head trauma+loss of consciousness (all of the above)
- A child was found to have a tuft of hair in his lower back which is false.... Assure family that it's normal and nothing is wrong
- Suprasellar tumor causes all except... motor deficit
- Anterior fossa skull fracture causes all except Battle sign
- A man comes after trauma complaining of numbness in C7 distribution following trauma what can be done to see the cause: neck xray... ct scan c1-t1 ...answer: all of the above
- Child comes with vomiting and nausea of 3 months duration and has cerebellar signs and otitis media 2 weeks ago .. what is the Differential Diagnosis ,

(abscess, cerebellar tumour)

what's the next step

(CT scan),

what's the most likely diagnosis?

Medulloblastoma

- Which of the following is caused by mass....
Sensory, motor , hydrocephalus..... answer: all of the above
- Common site of lumbar canal stenosis:
L5-S1
- Wrong about pituitary adenoma:
prolactinoma first treatment is surgery
- Head circumference of full-term baby at birth:
35 (don't forget the range is 33-36)
- Percentage of newborns with myelomeningocele to have hydrocephalus:
80-90%
- Sunset eyes:
hydrocephalus
- False about refractory epilepsy:
half of epilepsy cases are refractory.
- Fisher scale for diffuse SAH of 1 mm thickness:
grade 3
- Signs of meningism, Increases protein, low glucose in the CSF, polymorphic neutrophils, RBC:
Bacterial meningitis.
- Surgery for cervical prolapse:
microscopic anterior discectomy with fusion
- Wrong about meningitis:
Treatment of meningitis should be deferred until the results of culture and sensitivity are back.
- Spinal tumor in female intradural extramedullary:
meningioma
- The most prognostic sign in acute head injury is:
CT scan???
- Methods to decrease the ICP except:
allow hypotension (Prevent hypotension with fluid and vasopressors; dopamine, norepinephrine, Therefore, you should not give neither beta blockers nor alpha-blockers)
- Most common bacteria to cause shunt infection?
Staphylococcus Epidermis
- There were cases and the question was: which area is likely to be the lesion?
- Wrong about shunt infections:
The most common causative organisms are gram negative
- We used cerebral angiography in which of the following condition :

Subarachnoid hemorrhage

- Origin of bleeding in Subdural hematomas:
Pia veins
- Origin of bleeding of Epidural hematoma:
meningeal arteries
- Acute epidural hematoma CT findings :
Hyperdense lense shape
- Treatment of Epidural hematoma :
Craniotomy + evacuation
- Most common site of Berry aneurysm is :
anterior communicating
- Case with Bradycardia, mydriasis and , Dx is :
intracranial hematoma
- Wrong statement regarding cranial tumor :
Ependymoma more common than astrocytoma
- One isn't a non-communicating hydrocephalus :
Choroid plexus tumor
- Cephalohematoma is collection of blood in :
subperiosteal space
- Fracture that causes otorrhea :
temporal bone petrous part
- Most common organism that causes infection at VP shunt :
Coagulase negative Staph
- Which of the following is treatment of non-communicating hydrocephalus :
VP shunt
- One of the following is not step of treatment of Subarachnoid hemorrhage
Intubation
- Which of the following tumor shows high rate of calcification :
oligodendroma
- drop-mets seen in :
medulloblastoma
- Not an Intramedullary tumor :
Schwannoma
- Not a feature of Conus medullaris syndrome :
anal areflexia
- Not a feature of cauda equina :
Pyramidal signs
- One is not associated with Myelomeningocele :
associated with upper limb weakness
- Knee reflex root :
L4
- Far lateral L4-L5 disc prolapse causes :
L4 radiculopathy
- Not a feature of Arnold chiari :
cyst compressing 4th ventricle
- Most common incomplete spinal injury :

Central cord syndrome

- Contraindication of LP :
intracranial space occupying lesion
- Not a treatment for myelomeningocele :
Giving Folic acid will treat the case and induce growth of neural tube (or something like that)
- Not a feature of spinal cord hemisection :
contralateral paralysis
- Origin of Meningioma :
Arachnoid cap cells
- One site we don't monitor of ICP :
skull
- Most common symptom of intracranial hemorrhage :
seizure
- Which of the following are not regarding subarachnoid hemorrhage : ??
- Lucid interval seen in :
epidural hematoma
- Sign of hydrocephalus :
disproportion of head of baby
- Severe head trauma GCS :
3-7
- Character of Subdural :
don't cross suture line
- Not true regarding spinal cord injury :
More common in pediatrics
- Duration of acute intracranial hemorrhage :
3 days
- Why subdural more dangerous than epidural or something like that :
more near to brain.
- Best prognosis brain tumor in adult :
Meningioma
- Injury progress to vegetative state :
Axonal injury
- What is the most common brain tumor to be associated with calcifications?
Oligodendroglioma
- Which of the following is false about high ICP?
Loss of consciousness is an early sign of high ICP
- Which of the following brain tumors is known to seed through the CSF?
Medulloblastoma
- Which of the following brain tumors has relatively the best prognosis?
Meningioma
- A patient with neck pain, weakness of biceps muscle, power is 3/5, what is the best next step?
Anterior discectomy with fusion
- What is the incidence of hydrocephalus in newborns with myelomeningocele?
80-90 %

- A patient with L4/L5 disc prolapse and the prolapse is far lateral, what is the neurological manifestations associated with it?
L4 radiculopathy
- Which of the following is false about intractable epilepsy?
In the Jordanian population of 10,000,000, the number of intractable epilepsy cases is 5000 (it should be 1/3 of 1 % of the population).
- Which of the following causes communicating hydrocephalus?
Choroid plexus papilloma
- A patient with epidural hematoma, how would it appear on CT scan?
Hyperdense lens-shaped area
- Which of the following is false about spinal tumors?
Meningioma is associated with neurofibromatosis type 1 (it should be NF2)
- The prognosis of subdural hematoma is worse than epidural hematoma, why?
Because it is associated with more severe brain injury
- Which of the following does not cause foot drop?
Femoral nerve injury
- A pregnant lady was informed that her baby has myelomeningocele in an antenatal care clinic, which of the following is not true?
Folic acid supplementation may reverse this condition
- What is the most common spinal cord injury among incomplete injuries?
Anterior spinal syndrome, Central spinal syndrome
- Which of the following does not occur in Chiari malformation?
Large posterior fossa with wide fourth ventricle (this occurs in Dandy Walker syndrome)
- Pituitary tumor where medical rather than surgical treatment is the first option?
Prolactinoma
- Brown-Sequard syndrome, which of the following correctly describes it?
Ipsilateral loss of motor function with contralateral loss of pain and temperature sensation
- Which of the following is true about ligamentum flavum?
It is attached to the inner part of the lamina above (the anterior surface) and the outer part of the lamina below (upper border).
- Most common site of Berry Aneurysm?
Anterior communicating artery.

- **Frontal lobe lesions** tend to present with personality change, gait ataxia and urinary incontinence, contralateral hemiparesis if posterior frontal and dysphasia if involving the left inferior frontal gyrus.
 - Also in the front lobe, center for visual field??? In middle frontal gyrus???
- **Parietal lesions** are associated with sensory inattention, dressing apraxia, astereognosis and, if on the dominant side, acalculia, agraphia, left-right disorientation and finger agnosia (Gerstmann's syndrome).
- **Temporal lobe lesions** may be associated with disturbance of memory, contralateral superior quadrantanopia or hemiparesis and, if on the dominant side, dysphasia.
- **Occipital lesions** are often associated with visual field deficits, most commonly an incomplete contralateral homonymous hemianopia.
- **A pituitary macroadenoma:** bitemporal hemianopia
- **Anterior skull base meningioma:** anosmia, ipsilateral optic atrophy and contralateral papilloedema (Foster-Kennedy syndrome)
- **Vestibular schwannoma:** ipsilateral hearing loss, tinnitus and dysequilibrium

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