

CNS- pathology

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Lecture 1

CNS Pathology -1

Done By :

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1)The most sensitive neuron to transient global ischemia?

Cerebellar purkinje cells

2)In cerebral infarction,when can we see influx of macrophage and reactive gliosis?

2 week

3)Red neurons?

a) First minute

b)12 hours

Answer: b

4)Border zone (watershed) infarcts usually seen after ?

hypotensive episodes

5)Patient feel like its the worst headache ever ?

Aneurysm

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Lecture 2

CNS pathology 2

Done by:

Moneer Ibrahim

Vessel involved in fronto-temporal epidural hematoma

Middle meningeal a

Fibrosis of subdural hematoma occurs in?

2nd month

Reversible altered brain function?

Concussion

Which of the following has slowly evolving neurological symptoms?

- Subdural trauma or injury
- Epidural
- Subarachnoid

ans: a

Hypertension May cause all of the following except?

- Lacunar infarct
- Acute hypertensive encephalopathy
- Primary angiitis of the CNS
- Rupture of small vessels
- Intraparenchymal hemorrhage

ans: c

A 21 year-old-women incurs a blow to her head from a fall. She has loss of consciousness for 5 minutes. On examination her deep tendon reflexes are diminished. A head CT scan 6 hours later shows no abnormalities. She recovers over the next week, with no neurological deficits, but cannot remember this event. Which of the following is the most likely consequence from her injury?

Select one:

- a. a. Epidural hematoma.
- b. Atherosclerosis.
- c. Contusion.
- d. Concussion.
- e. Subdural Hematoma

ans: d

Which of the following regarding traumatic vascular lesions of the brain is correct?

- a. The middle meningeal vein is vulnerable to injury and mostly affected in the epidural hematoma.
- b. The subdural hematoma may expand rapidly and constitutes a neurosurgical emergency.
- c. In children, both epidural and subdural hematomas are common and associated with skull fracture.
- d. The risk of repeat bleeding in subdural hematoma is greatest in the first few days after the initial hemorrhage.
- e. The most symptoms associated with subdural hematoma are nonlocalizing neurologic manifestations.

ans: e



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Lecture 3

CNS Tumors I

Done By :

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pilocytic astrocytoma:

Answer: Well differentiated cystic mass in child cerebellum

One of the following not an histological feature of oligodendroglioma:

- 1.nuclear pseudoinclusion
- 2.clear cytoplasm.
- 3.fried egg appearance
- 4.thin walled blood vessels

ans: a

Which of the following is not a glial tumor?

Meningioma

Which of CNS tumors occurs in the central canal of spinal cord?

Ependymoma

One of the following pairs between the central nervous system tumor and its distinctive histologic feature is wrongly matched?

- a. Primary Central Nervous System Lymphoma: Perivascular Accentuation
- b. Ependymoma: Cellular whorls
- c. Oligodendroglioma: Fried egg appearance
- d. Medulloblastoma: Homer Wright Rosettes
- e. Pilocytic Astrocytoma: Hairlike processes

ans: b

One of the following is Correct about central nervous system tumors?

- a. They Comprise 40% of all pediatric tumors
- b. Neuronal tumors are usually higher grade
- c. NF2 gene on chromosome 22 is commonly mutated in ependymomas and meningiomas
- d. Rosenthal fibers are exclusively found in neoplastic lesions
- e. Molecular features are supplementary in the 2016 WHO classification of CNS tumors.

ans: b

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Lecture 3

A 12-year-old girl presented with 6 months history of worsening headaches. Physical examination revealed an ataxic gait and an incoordination of upper and lower limbs. Brain MRI revealed a cystic mass in the right cerebellar hemisphere. Sectioning of the mass after the resection surgery showed a cystic mass with 1-cm mural nodule. Microscopically, the mass is composed of cells that are positive for glial fibrillary acidic protein (GFAP) and rich in eosinophilic granular bodies. Which of the following molecular markers is most likely to be found in the cells of this mass?

- a. BRAF mutations
- b. MYC amplification
- c. Mutations in IDH1/2
- d. d. 1p and 19q co-deletions.
- e. Mutations in the NF2

ans: a

One of the following pairs between the central nervous system tumor and its WHO grade is wrongly matched?

- a. Atypical meningiomas: WHO grade II
- b. Ependymoma: WHO grade II
- c. Medulloblastoma: WHO grade IV
- d. Pilocytic Astrocytoma: WHO grade II
- e. Oligodendroglioma: WHO grade II

ans: d

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Lecture 4

Tumors
of the Central
Nervous System II

Corrected By :

X

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Lecture 4

1. Blue cell tumors are a group of aggressive cancers. Which of the following is a type of blue cell tumor :

- A) Medulloblastoma
- B) Neuroblastoma
- C) Ependymoma
- D) Oligodendroglioma

Answer: A

2. One of the following is low grade of meningioma :

- A) secretory
- B) Rhomboid
- C) choroid
- D) clear cell

Answer: A

3. A 45-year-old woman has had unilateral headaches on the right for the past 5 months.

Physical examination yields no remarkable findings. The representative gross appearance of the lesion seen on CT scan of the head is shown in the figure. The mass is surgically removed and microscopic examination shows elongated cells with pale, oblong nuclei and pink cyto-plasm with occasional psammoma bodies.

Cytogenetic analysis shows 22q. What is the most likely diagnosis?

- A) Astrocytoma
- B) Ependymoma
- C) Meningioma
- D) Metastasis
- E) Tuberculoma

Answer: C

4. A woman presents with a headache and imaging reveals a mass beneath the dura mater. If you were to take a sample of the meninges in this case, what finding would you most likely expect :

- A) Psammoma bodies
- B) Neuronal necrosis
- C) Granulomatous inflammation
- D) Charcot-Leyden crystals

Answer: A