



CNS cases

Maram Abdaljaleel, MD

Case 1

81-year-old gentleman has a single episode of grand mal seizure. physical examination is unremarkable except for 1.5-cm, darkly pigmented skin lesion on the chest. Brain MRI shows 4 solid, 1- to 3-cm mass lesions located at the gray-white junction in the right and left frontal, and temporal lobes. What is the most likely diagnosis?

- A. Primary CNS lymphoma
- B. Glioblastoma
- C. Pilocytic astrocytoma
- D. Meningioma
- E. Metastatic melanoma

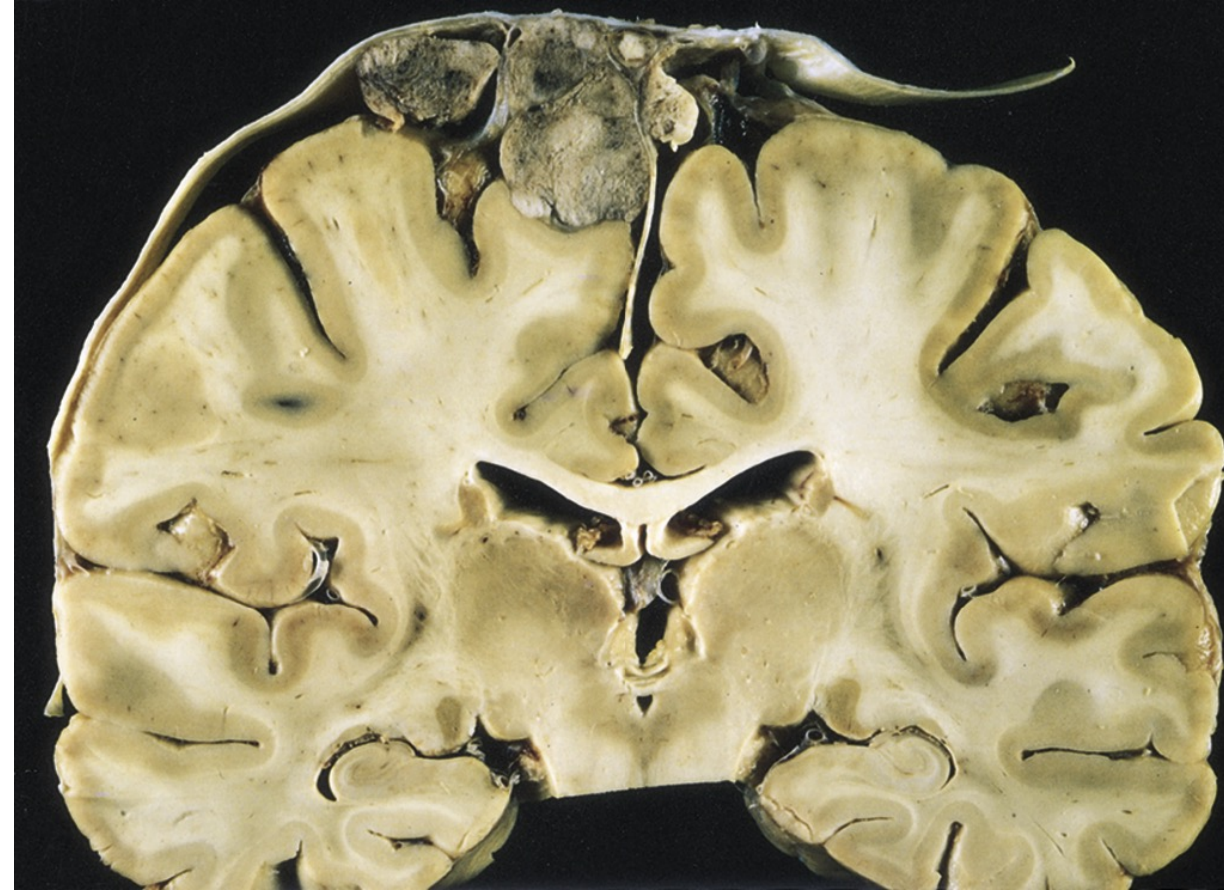
A 47-year-old gentleman has been experiencing headaches for the past 6 months. He had seizures twice. Brain MRI shows a solitary, circumscribed 3.5-cm mass in the right parietal centrum semiovale. The mass has small cysts, calcification and hemorrhage. Neurosurgery is performed, and the mass is removed.

Microscopically, the mass consists of sheets of cells with round nuclei, finely granular chromatin & moderate amount of clear cytoplasm. The tumor cells show GFAP expression. The patient receives adjuvant radiation and chemotherapy, and there is no recurrence. Which of the following molecular markers is most likely to be found in the cells of this mass?

- A. BRAF mutation
- B. 1p and 19q co-deletions
- C. ATRX mutation
- D. c-MYC amplification
- E. Wnt activation

40-year-old lady presented with headache for the past 3 months. Physical examination is unremarkable. 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 epithelioid cells with pale, oblong nuclei and pink cytoplasm with occasional psammoma bodies. Cytogenetic analysis shows 22q-. What is the most likely diagnosis?

- A. Meningioma
- B. Pilocytic astrocytoma
- C. Ependymoma
- D. Metastasis
- E. lymphoma



Answers:

- Case 1: E
- Case 2: B
- Case 3: A

THANK YOU

