58th ANNUAL DIAGNOSTIC SLIDE SESSION 2017.

CASE 2017-2

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Clinical History:
Initial lesion: Radical orchiectomy demonstrating non-seminomatous germ cell tumor with yolk sac, embryonal, and syncytiotrophoblasts elements.

Six months after initial lesion: 3 cm left frontal lobe metastasis resected followed by 40Gy whole brain radiation

Nine months after initial lesion: Residual left frontal lobe tumor with new brain lesions treated with gamma knife radiosurgery. Seizures well controlled with Keppra

Thirteen years, six months after initial lesion: Left-sided headache, difficulty speaking, and progressive memory impairment. FDG-MRI-PET scan demonstrates left frontal and temporal mildly increased uptake consistent with viable tumor. EEG negative for seizures. Stereotactic biopsy demonstrates histopathological features consistent with radiation necrosis. Patient was not deemed a candidate for medical therapies to address the radiation necrosis and was observed.

Fouteen years after initial lesion: Breakthrough seizure activity with increased left anterior frontal lobe gyral swelling and enhancement compared with MRI 3 months previously. Area of greatest cortical enhancement biopsied.

Material submitted: H&E section from most recent biopsy.

Points for discussion: 1. Provide 3 possible diagnoses in order of probability.
2. Postulate 2 possible pathogenetic mechanisms responsible for the cytological abnormalities seen within the lesion.
3. Name 2 eminent California neuropathologists on whose shoulders we are now standing.