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Lest we forget: CNS malignancy manifesting as acute transient amnesia

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Case Presentation

A 54-year-old male with history of HTN, HLD, and gastric bypass presented for evaluation two days following an episode of transient amnesia.

- ▶ Episode of “feeling funny” and slurred speech while at work, with coworkers stating he was unable to perform duties
- ▶ Went home that morning and slept until the following morning. Upon awakening had no recollection of prior day’s events
- ▶ Symptoms completely resolved, but patient reports to hospital 2 days later for evaluation

Physical Exam

Vitals: Afebrile, 132/85, HR 94, RR18, O2 Sat 96% on room air

Gen: Patient appearing stated age lying in stretcher in NAD; A&Ox3

HEENT: **Small, non-bleeding lip laceration on inner surface of the lower lip.** Normocephalic/atraumatic; no scleral icterus or conjunctival injection; no eyelid ptosis; no cervical/supraclavicular LAD

CV: RRR; normal S1/S2; no murmurs, rubs, or gallops

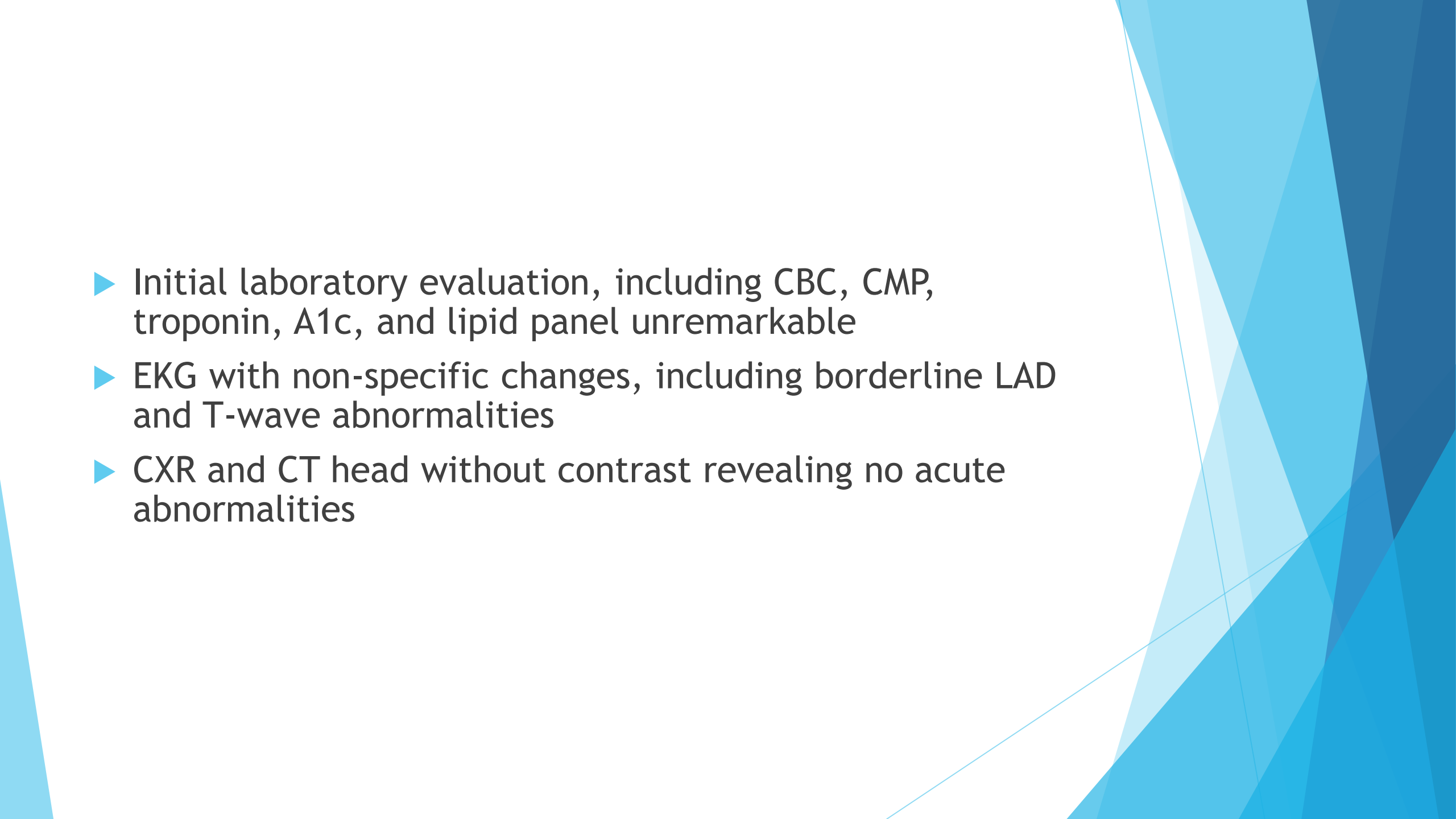
Pulm: CTAB; no wheezes, rales, or ronchi; no increased WOB; chest expansion symmetric

Abd: Normoactive bowel sounds; soft, ND, NT to palpation; no rebound tenderness; no guarding; no peritoneal signs

Extr: no clubbing/cyanosis; 2+ dorsalis pedis pulses; no lower extremity edema

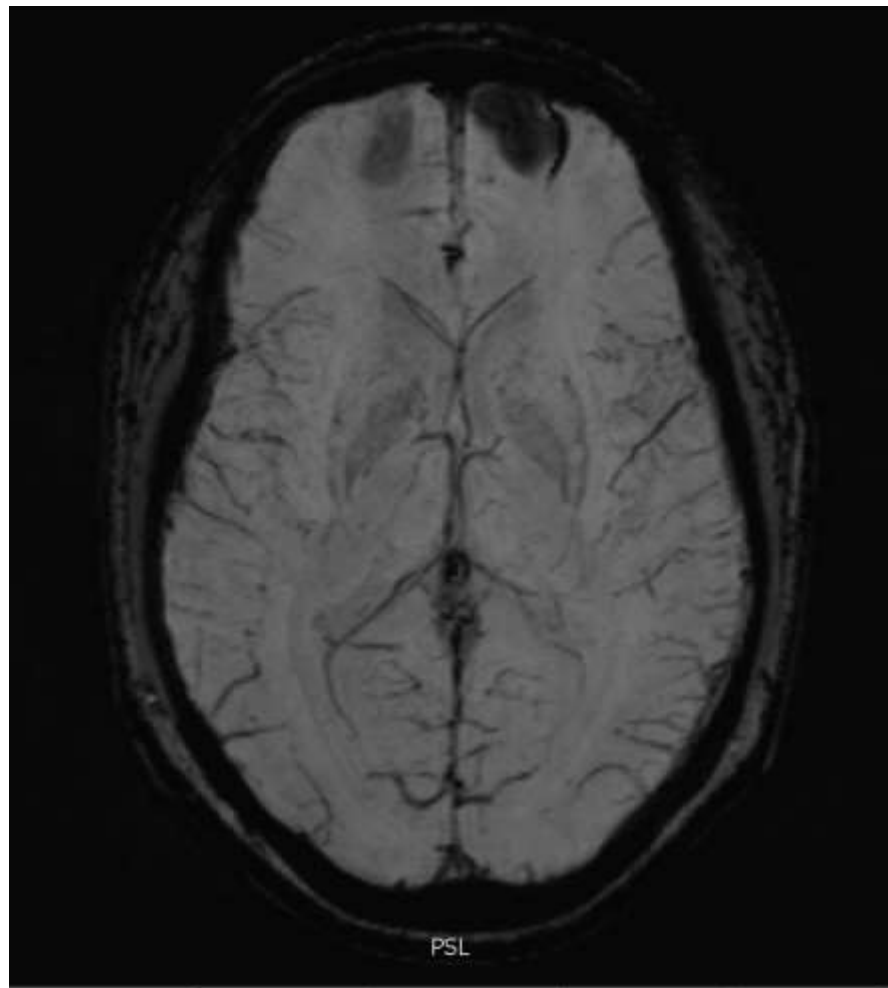
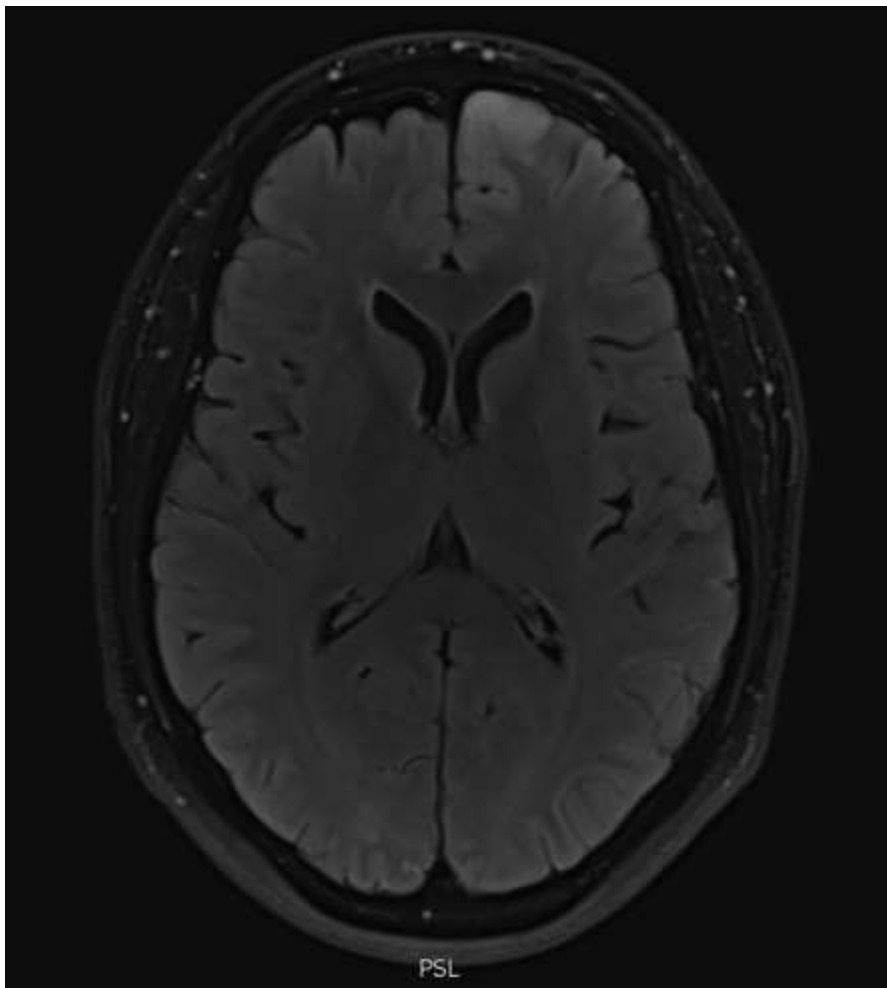
Neuro: CN II-XII grossly intact; Strength 5/5 bilaterally. Sensation intact bilaterally. Intact cerebellar testing (finger-->nose).

Skin: No rashes or lesions noted

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- ▶ Initial laboratory evaluation, including CBC, CMP, troponin, A1c, and lipid panel unremarkable
 - ▶ EKG with non-specific changes, including borderline LAD and T-wave abnormalities
 - ▶ CXR and CT head without contrast revealing no acute abnormalities

Case Presentation (continued)

- ▶ Neurology consulted in the ED, and patient admitted for further evaluation with MRI/MRA brain with TIA protocol
- ▶ MRI obtained later that evening, revealing restricted diffusion, increased T2/FLAIR signal, and heterogeneous enhancement of the left anterior cerebral artery territory concerning for acute ischemia/infarct

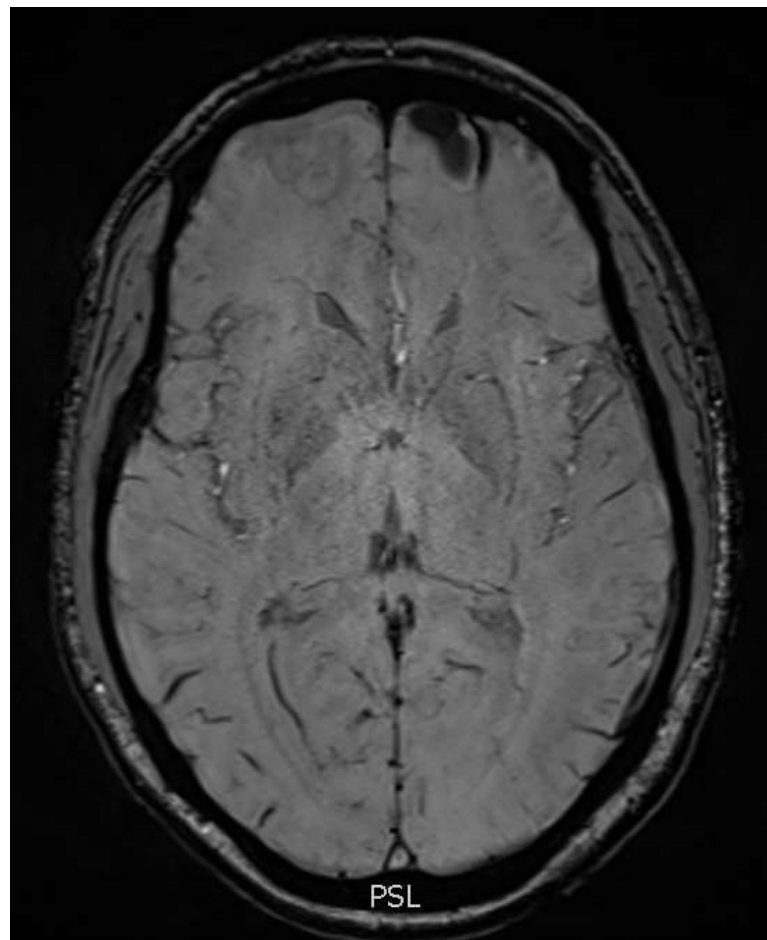
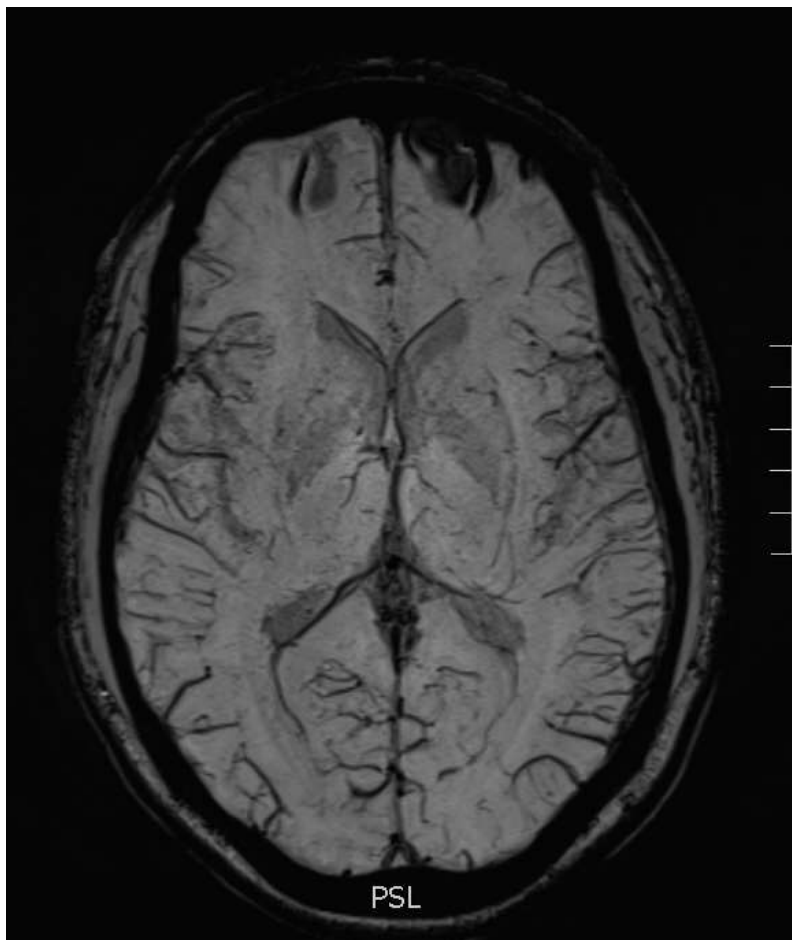


Case Presentation (continued)

- ▶ CT venogram without venous thromboses
- ▶ EEG obtained, revealing intermittent rhythmic slowing in the left frontal lobe with associated “sharp elements” in the same region of unclear significance
- ▶ Imaging reviewed with neuroradiologist, with concern expressed for possible intracranial neoplasm

Case Presentation (continued)

- ▶ MRI brain with tumor protocol obtained, revealing expansile, enhancing left frontal cortical-based lobe lesion with corresponding hyperperfusion, likely representing a high-grade glial neoplasm versus lymphoma
- ▶ CT chest/abdomen/pelvis unremarkable



Outcome and Follow-up:

- ▶ Patient subsequently underwent left frontal craniotomy with tumor resection and biopsy
- ▶ Pathology revealed WHO grade III anaplastic astrocytoma
- ▶ Patient completed 2 cycles of concurrent chemoradiation with temozolomide
- ▶ Currently undergoing planned 12 cycles of temozolomide monotherapy

Discussion:

- ▶ Transient global amnesia (TGA) is a clinical syndrome of reversible anterograde amnesia accompanied by repetitive questioning that occurs in middle-aged and older individuals
- ▶ Differential diagnosis for TGA includes TIA, seizure, anoxia, encephalitis/encephalopathy, and intoxication, among others

Table 1

Hodges and Warlow criteria for TGA

Diagnostic criteria of TGA

- Attacks must be witnessed
 - There must be anterograde amnesia during the attack
 - Cognitive impairment is limited to amnesia
 - No clouding of consciousness or loss of personal identity
 - No focal neurological signs/symptoms
 - No epileptic features
 - Attack must resolve within 24 hours
 - No recent head injury or active epilepsy
-

Note: Data from Hodges and Warlow.¹⁵

Abbreviation: TGA, transient global amnesia.

Discussion:

- ▶ Anaplastic astrocytoma is a diffusely infiltrating, malignant, astrocytic, primary brain tumor with median age of onset of 41 years
- ▶ Comprises 4% of all malignant CNS tumors, and 10% of all gliomas
- ▶ Patients most frequently present with focal or generalized neurologic symptoms, including weakness, sensory deficit, visual impairment, personality changes, headaches, or seizures
- ▶ With conventional treatment, median overall survival is 3 years, with a 5 year overall survival rate of 28%

Conclusion:

- ▶ Clinicians face daily challenges to identify primary etiologies for vague symptoms
- ▶ Given the limitations of laboratory and radiologic measures, strong clinical suspicion is required to ensure appropriate evaluation for an organic etiology
- ▶ Communication between primary and consultant services is vital to provide the best care for patients

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