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

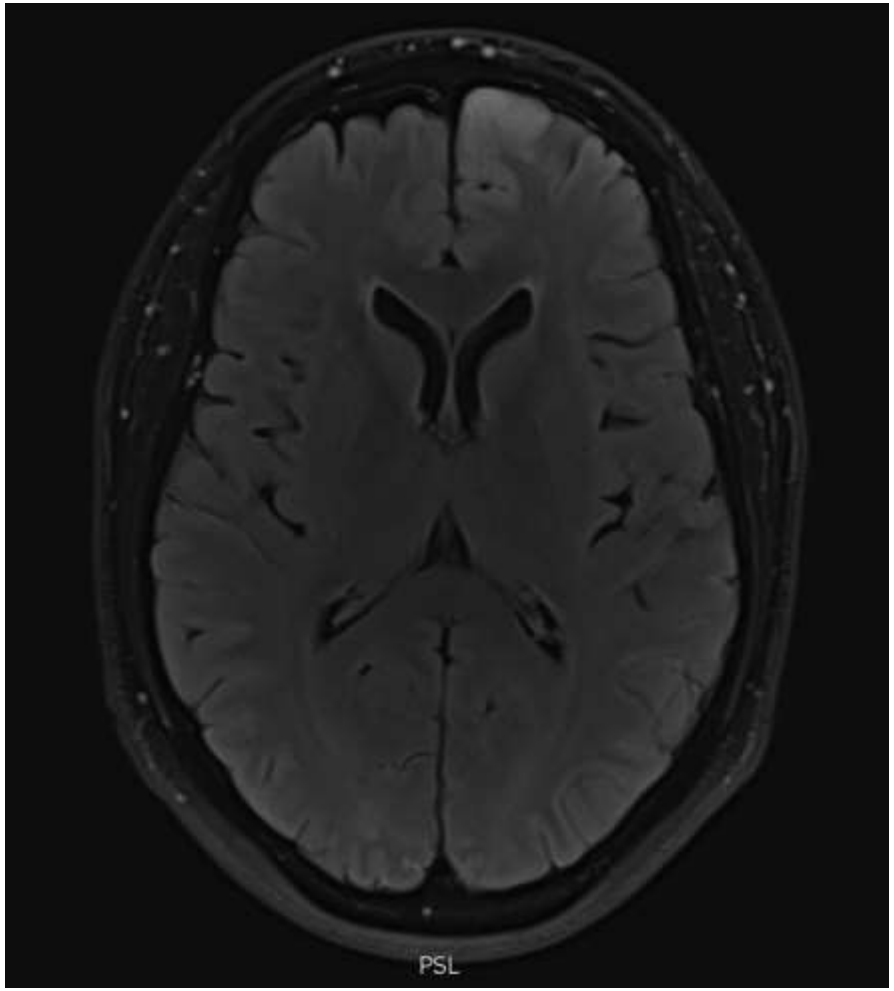
Physical Exam

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

- 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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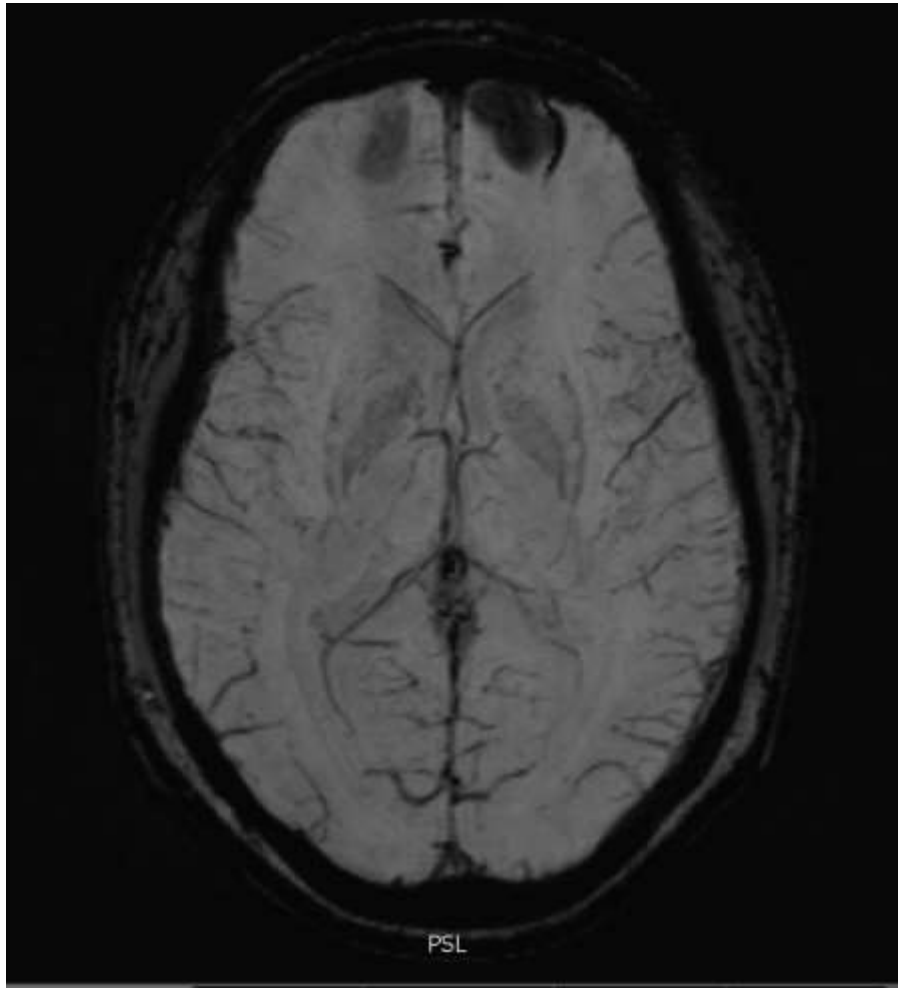
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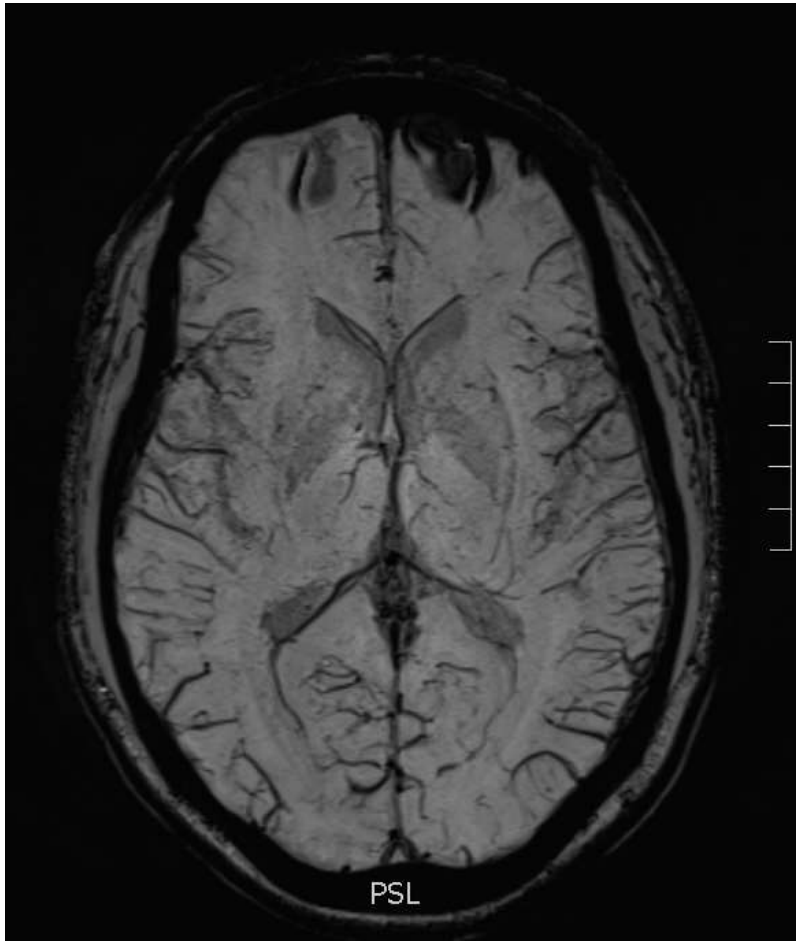
Case Presentation (continued)

- 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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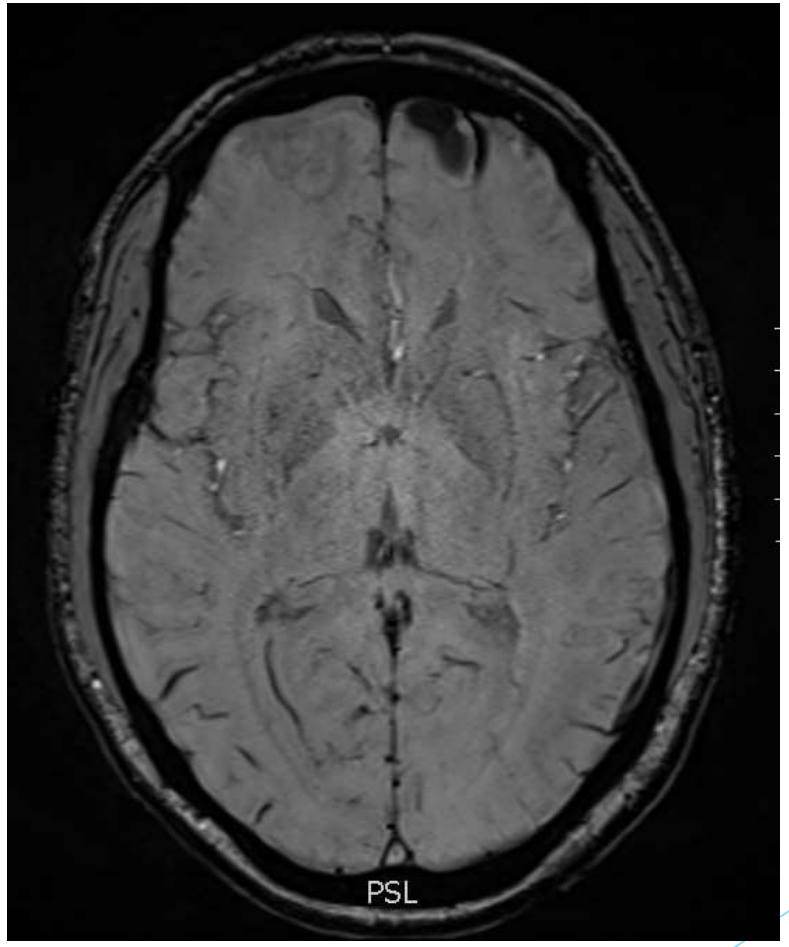
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Outcome and Follow-up:

- 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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