Casting a “Spell”: A Common (But Under-Diagnosed) Cause of Transient Neurological Symptoms

Christiana K. Prucnal, MS-III, RN-BC, BSN,1,2 Paul S. Jansson, MD, MS3,4
1 Warren Alpert Medical School of Brown University, 2 Massachusetts General Hospital, 3 Brigham and Women’s Hospital, 4 Harvard Medical School

Introduction - Why This Case
- Transient neurological symptoms (“spells”) are seen in 20% of patients with cerebral amyloid angiopathy, common in the elderly
- Amyloid “spells” can be confused with stroke or TIA and predict symptomatic hemorrhage
- However, management is opposite of TIA: discontinue antiplatelets and anticoagulants

Case Presentation

History of Present Illness
- 87 year-old female with visual disturbances, dull headache, and mild confusion
- One day of “unusual shapes and colors” while watching TV in both eyes (even when closed)
- Gradual, moderate-severity retro-orbital headache, unrelieved by acetaminophen
- Difficulty dialing daughter’s phone number
- Symptoms now entirely resolved

Pertinent Past Medical History
- HTN, HLD, VTE (lifelong anticoagulation)
- Chronic posterior vitreous detachment
- Cataracts and suspected glaucoma

Physical Examination
- Normal Vital Signs
- Neuro: A&O x 3, CN II-XII intact, 5/5 Strength, Sensation intact, Finger-to-nose coordinated, Mild shuffling gait (baseline)
- Ophtho: Normal visual fields, acuity 20/30, IOP 20mmHg, EOMI, PERRL

Labs
- ESR 10 (Normal 0-18)
- CRP 3.8 (<10)
- Troponin T (HS) 11 (0-9)

Imaging
- Normal CT head (L) and T1 MRI (R) of the brain
- Normal MRA (L). Susceptibility-weighted MRI (R) showing microhemorrhages in the left occipital lobe

Discussion and Teaching Points
- CAA is a relatively common age-related disease (23-57% of elderly on autopsy)
- β-amyloid deposition weakens the walls of cerebral small vessels and intracranial hemorrhage is most common presentation
- Transient neurological symptoms (“amyloid spells”) of numbness, weakness, paresthesias or hallucinations can occur
- MRI (gradient echo or susceptibility-weighted) shows focal hemorrhage in cortex corresponding to symptoms
- “Spells” predict symptomatic intracranial hemorrhage and discontinuation of antiplatelets and anticoagulants is traditionally recommended

Conclusion
- Amyloid “spells” are transient neurological symptoms that may mimic TIA
- Management includes discontinuation of anti-platelet and anti-coagulant medications

References