Posterior Circulation Stroke Causing Alexia without Agraphia in a Patient with Multiple Myeloma on Revlimid Therapy: A Case Report

Authors: Nabil U. Faridi, DO, Lauren Bartels, DO, Anuja Korlipara, MD

Setting: Acute Inpatient Rehabilitation Unit

Case Diagnosis

Posterior Circulation Stroke Causing Alexia without Agraphia.

Case Description

An 81-year-old male with a history of multiple myeloma complained of blurry vision and dizziness at home. The next morning, he felt disoriented and confused prompting him to go to the ER where he was found to have an occipital stroke. MRI Brain confirmed an ischemic infarct of the posterior circulation and MRA of the head and neck showed multifocal stenosis of left P3/P4 vessels. The patient was noted to have right-sided vision loss worse in the left eye compared to the right eye. He follows with oncology for multiple myeloma and was receiving Revlimid (Lenalidomide) therapy which has a known side effect profile of producing thromboembolic events. Due to this the patient was also prophylactically taking Xarelto (Rivaroxaban) which was ultimately held.

Discussions

Alexia without agraphia, or other language and motor deficits is a rare but classic presentation of occipital lobe strokes involving the posterior cerebral artery. Our patient is a retired pilot and he used reading as his escape. Vision and reading comprehension were very important to him. The ability to write is preserved because the left angular gyrus is supplied by the middle cerebral artery which was unaffected. He initially presented with right homonymous hemianopsia, but his visual field began to improve during his rehab admission. He was unable to read letters or words but had no difficulty writing. As he progressed, he was able to recognize letters but still not fully reading words. With therapy, ambulation distance increased from 50 feet with minimum assist to walking 240 feet independently. He was referred to a neuro-ophthalmologist on discharge.

Conclusions

Early recognition and therapy are crucial to the rehabilitation of patients with posterior circulation strokes affecting vision and reading comprehension.