Giant cell arteritis (GCA), also known as temporal arteritis, is a systemic inflammatory vasculitis. The common ocular manifestations are anterior ischemic optic neuropathy, choroidal ischemia and central retinal artery occlusion. We describe a case of GCA presenting with retinal detachment and vitreous hemorrhage accompanied by temporal artery dissection. Based on our literature review, this is the first reported case of GCA presenting in this manner.

Case Description

A 75 year old female with no significant past medical history presented to the emergency department with visual disturbances and ongoing fever. She reported having “snowy vision” in her left eye for one day and low grade fever for one week associated with intermittent headaches. Upon examination she was febrile and tachycardic. Ophthalmological examination demonstrated visual acuity of 20/50 on the right side and hand motion on the left. Fundoscopy showed vitreous hemorrhage in the left eye. Ultrasound of the eyes and CT head both confirmed retinal detachment of the left eye. She also had leukocytosis, transaminitis, elevated CRP and ESR. Empiric broad-spectrum antibiotics were initiated for pyrexia of unknown source. Extensive work up ruled out infectious etiology. Patient continued to have symptoms and retinal detachment remained a perplexing enigma. ANA was positive and she was noted to have nodular temporal arteries bilaterally. Doppler US revealed bilateral hypoechoic thickening suggestive of GCA.

Patient was started on pulse dose IV steroids and a temporal artery biopsy was performed which confirmed temporal arteritis with dissection. Her leukocytosis and fevers began resolving along with improvement in vision. IV steroids were transitioned to oral prednisone. She was discharged on oral steroids with a tapering regimen and was scheduled to follow up outpatient with rheumatology and ophthalmology.

Discussion

The diagnosis of GCA can be very challenging in acute patient care settings given the wide range of presenting symptoms and the possibility of delaying diagnosis due to the anchoring effect. It is imperative to consider GCA when ocular symptoms arise given the risk of permanent vision loss. Studies have demonstrated that starting treatment prior to biopsy does not significantly reduce positive biopsy results, therefore steroid therapy should not be withheld. Inflammation is the most likely underlying etiology for both retinal detachment and temporal artery dissection. Follow up with rheumatology is crucial as there is substantial risk of developing aortic aneurysm or dissection if left untreated. Monitoring of disease activity requires close patient follow up and monitoring of acute phase reactants.

Conclusion:

Retinal detachment and temporal artery dissection are rare atypical manifestations of GCA. Fever of unknown origin may be the presenting manifestation in up to 17% of elderly patients with GCA. Providers need to stay vigilant and beware of anchoring bias when confronted with similar findings in this patient population.