Chronic Retinal Detachment Associated with Central Retinal Artery Occlusion

Stephen J. Kim, MD
Chris Bergstrom, MD
Daniel F. Martin, MD

ABSTRACT
An unusual case of central retinal artery occlusion (CRAO) occurring in the setting of a chronic retinal detachment was reported. A 47-year old woman with a history of slowly declining peripheral vision in her left eye presented with acute painless hand motion vision. She had an extensive chronic retinal detachment in the left eye with multiple demarcation lines and marked whitening of the fovea. Her right eye was normal. A CRAO was confirmed with fluorescein angiography and optical coherence tomography testing. An exhaustive work-up was negative and there was no history of antecedent trauma.

INTRODUCTION
Central retinal artery occlusions (CRAO) most commonly result from embolic disease, atherosclerotic thrombosis, or vasculitis. Their occurrence is rare in middle-aged individuals. We present an unusual case of CRAO occurring in a middle-aged woman associated with an extensive chronic retinal detachment.
confirmed delayed filling of the central retinal artery. An exhaustive work-up was negative for hypertension, temporal arteritis, carotid vessel or cardiac disease, and hypercoaguable state. There was no history of antecedent trauma.

DISCUSSION

CRAO has not been previously associated with retinal detachment. However, vitreoretinal traction is presumed to cause vascular stasis in retinopathy of prematurity\textsuperscript{2} and proliferative diabetic retinopathy.\textsuperscript{3} Although a cause and effect relationship cannot be proven in this case, the extensive and chronic nature of the patient’s retinal detachment in combination with her age and negative work-up for other causes of CRAO suggest a possible association. To our knowledge, this is the first reported observation of CRAO associated with a chronic retinal detachment.

REFERENCES


Figure 2. (Top) Fundus photograph of the left eye demonstrating marked whitening and edema of the central macula. (Bottom) Optical coherence tomography demonstrating increased reflectivity in the inner retina and decreased reflectivity (shadowing effect) in the retinal pigment epithelium and photoreceptor layer.