A patient was diagnosed with nonperfused, inferior, hemiretinal vein occlusion but could not undergo fluorescein angiography examination due to a positive history of fluorescein allergy. Thus, the patient’s retinal imaging was assessed by deconstructing the single truecolor, or RGB, image into color channels: the blue channel (BC; 435-500 nm; highlights the anterior retinal layers), green channel (500-585 nm; scans the sensory retina to the retinal pigment epithelium [RPE]), and the red channel (585-640 nm; delineates the deeper structures from the RPE to the choroid) (Figure). The BC allowed the visualization of the capillary nonperfused areas that appear as dark patches in contrast to the grayish appearance of the perfused retina. The focal brightness along the nasal vessel (pink arrowhead) corresponds to a flame-shaped hemorrhage. This is a noninvasive procedure with no reports of photic injuries. The patient’s treatment was conducted based on the images obtained, which provided a noninvasive alternative to fluorescein angiography to identify nonperfused areas of the retina.