To describe optical coherence tomography angiography (OCTA) findings in patients with acute central serous chorioretinopathy (CSC) compared to conventional imaging methods. A consecutive series of 11 eyes from 10 healthy patients with acute CSC were included and underwent fluorescein angiography (FA), indocyanine green angiography (ICGA), OCT, fundus autofluorescence (FAF), and OCTA. Obtained OCTA images were evaluated for the presence of serous detachments of the neurosensory retina, leakage points, or other altered findings and compared to conventional imaging devices. In four out of 11 eyes, it was possible to detect detached retina adjacent to the leakage point in OCTA images, compared with four of 11 eyes using FA, five of 11 eyes using ICGA, 11 of 11 eyes using SD-OCT, and four of 11 eyes using FAF. In five out of 11 eyes, irregular flow patterns were observed on OCTA images through the choriocapillaris. OCTA images could not identify leakage points in any of the included eyes, compared with 11 out of 11 eyes on FA, five out of 11 eyes on ICGA, eight out of 11 eyes on SD-OCT, and zero out of 11 eyes on FAF. OCTA images of the superficial and deep retinal plexus, outer retina, and choriocapillaris did not reveal altered flow patterns directly associated with the leakage point in acute CSC. However, OCTA was able to visualize altered choroidal flow in some of the included eyes.