

Swept-source Optical Coherence Tomography Angiography in Rickettsial Retinitis

Hager Ben Amor, Wafa Ammari, Molka Khairallah, Olfa Haj Taher, Riadh Messaoud, Sonia Zaouali, Moncef Khairallah



Department of Ophthalmology, Fattouma Bourguiba University Hospital
Faculty of Medicine, University of Monastir-TUNISIA
Financial interests: none

14th Congress of the International Ocular Inflammation Society (IOIS) & The 4th International Assembly of Ocular Inflammation Societies

Background:

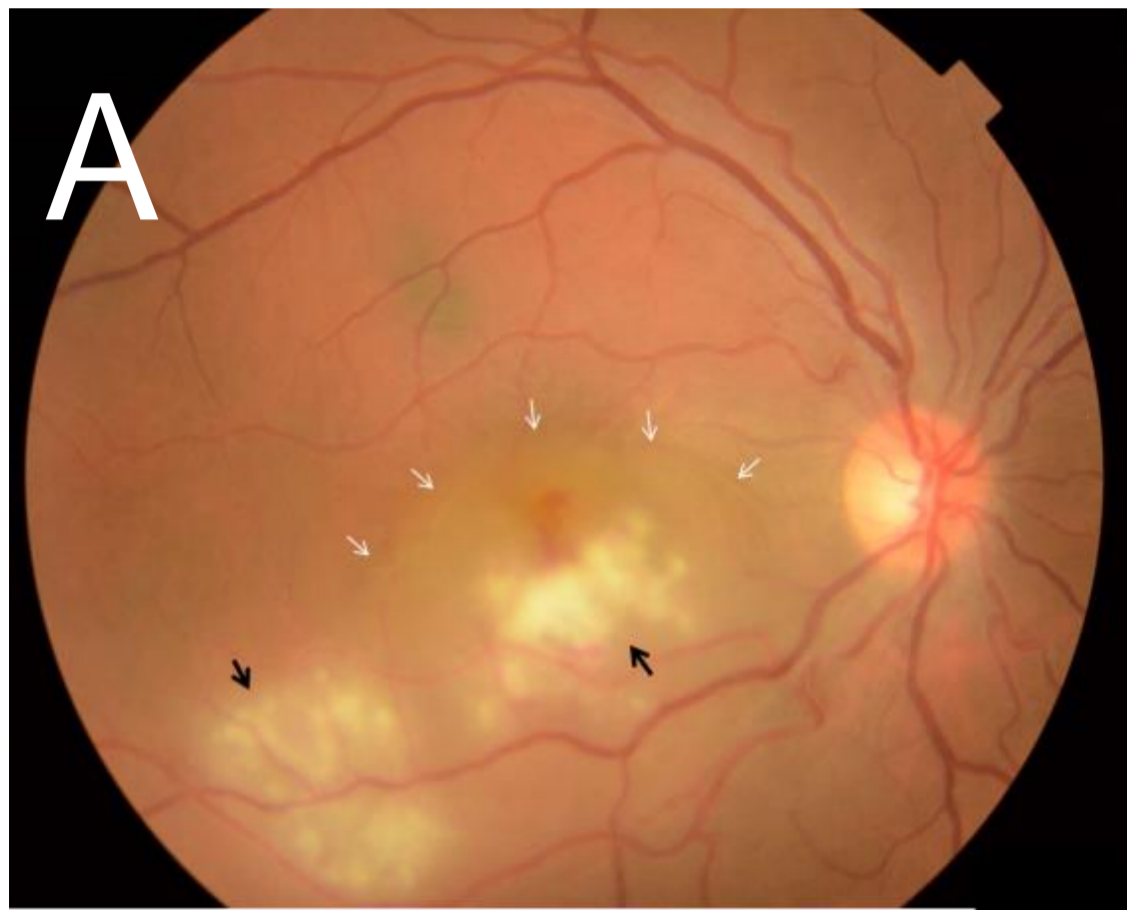
Rickettsioses have been associated with an array of asymptomatic or symptomatic ocular manifestations, including retinitis, retinal vasculitis, and optic neuropathy.

Our purpose is to report optical coherence tomography angiography (OCTA) findings in a patient with rickettsial retinitis.

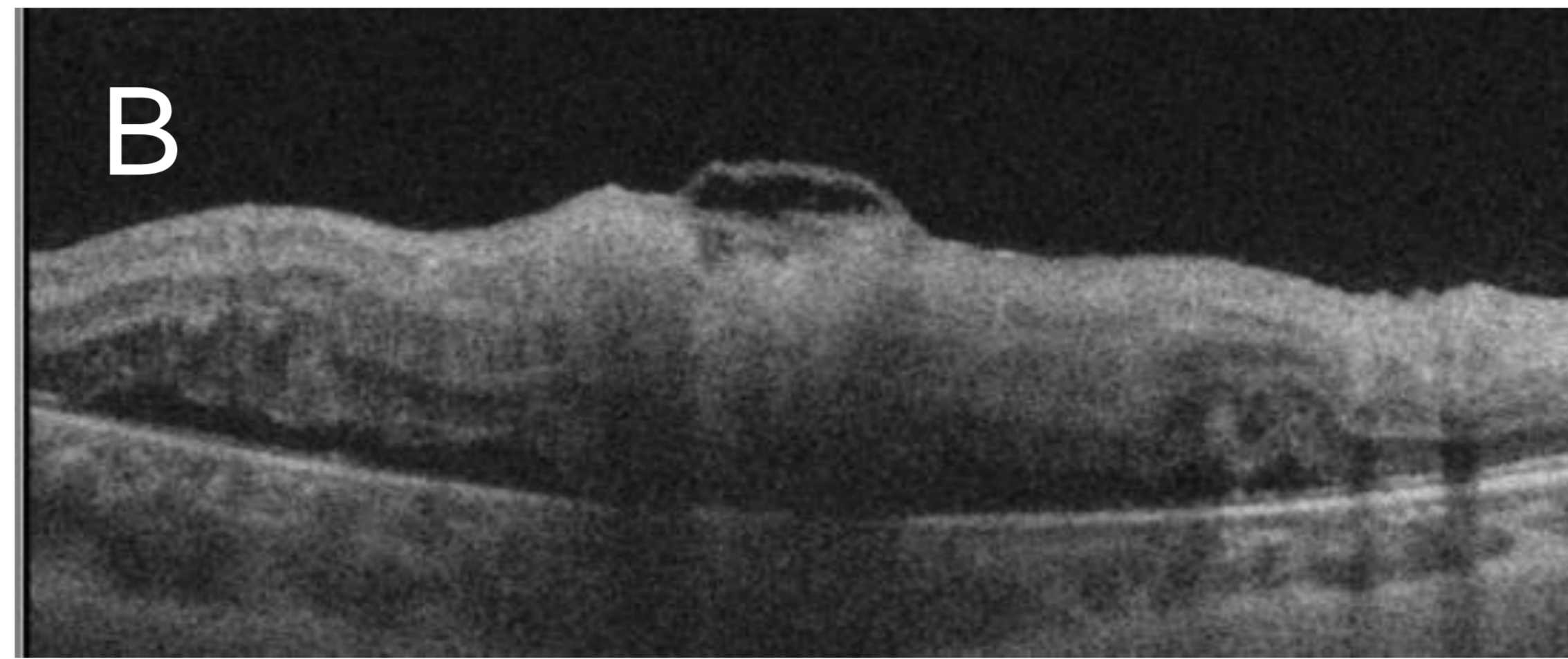
Case report:

A 29-year-old man complaining of acute blurring vision in the right eye associated with *Rickettsia conorii* infection underwent a comprehensive ocular examination, fluorescein angiography (FA), spectral domain optical coherence tomography (SD-OCT), and swept source OCTA.

At presentation: BCVA: 20/400, 0.5 + cells in the anterior chamber, mild vitritis



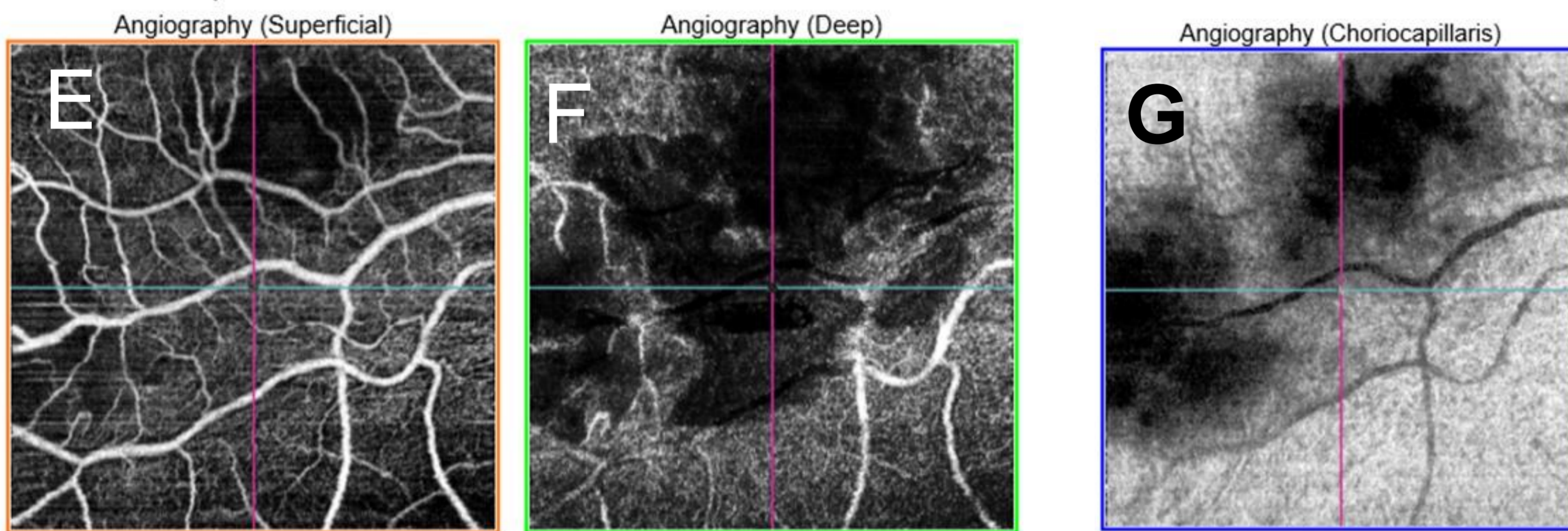
(A) Fundus photograph of the RE showing two large areas of retinitis (black arrows) identified in the inferior macula along the distribution of the inferotemporal artery with associated retinal edema and serous retinal detachment (SRD) involving the macula (white arrows).



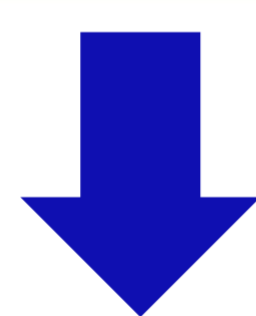
(B) Spectral-domain optical coherence tomography (SD-OCT) showing increased inner retinal reflectivity with posterior shadowing at the white retinal lesions, with associated retinal thickening, SRD, and thickened posterior hyaloid.



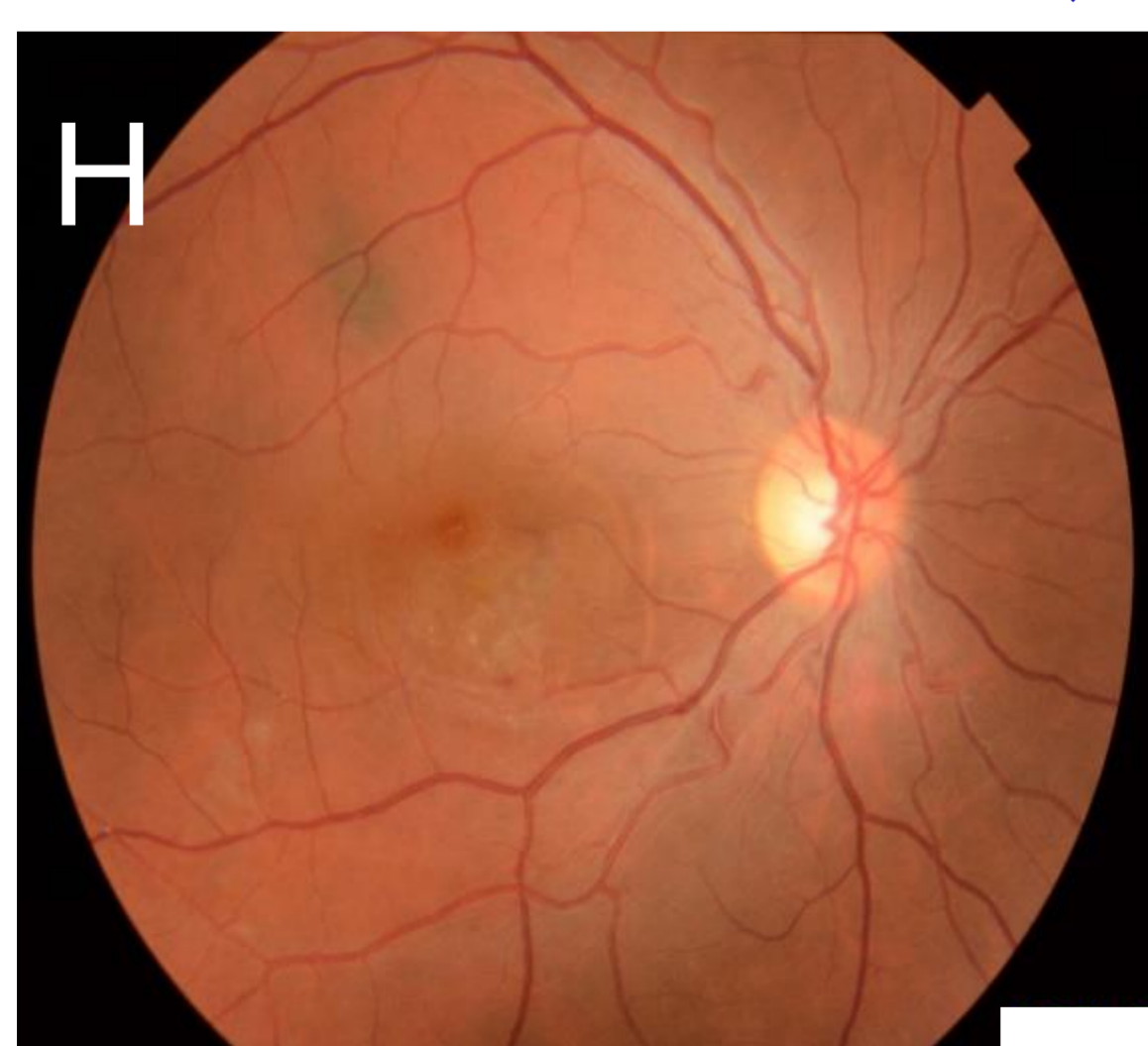
(C, D) FA showing early hypofluorescence and late staining of white retinal lesions, with associated adjacent retinal vascular leakage and optic disc hyperfluorescence.



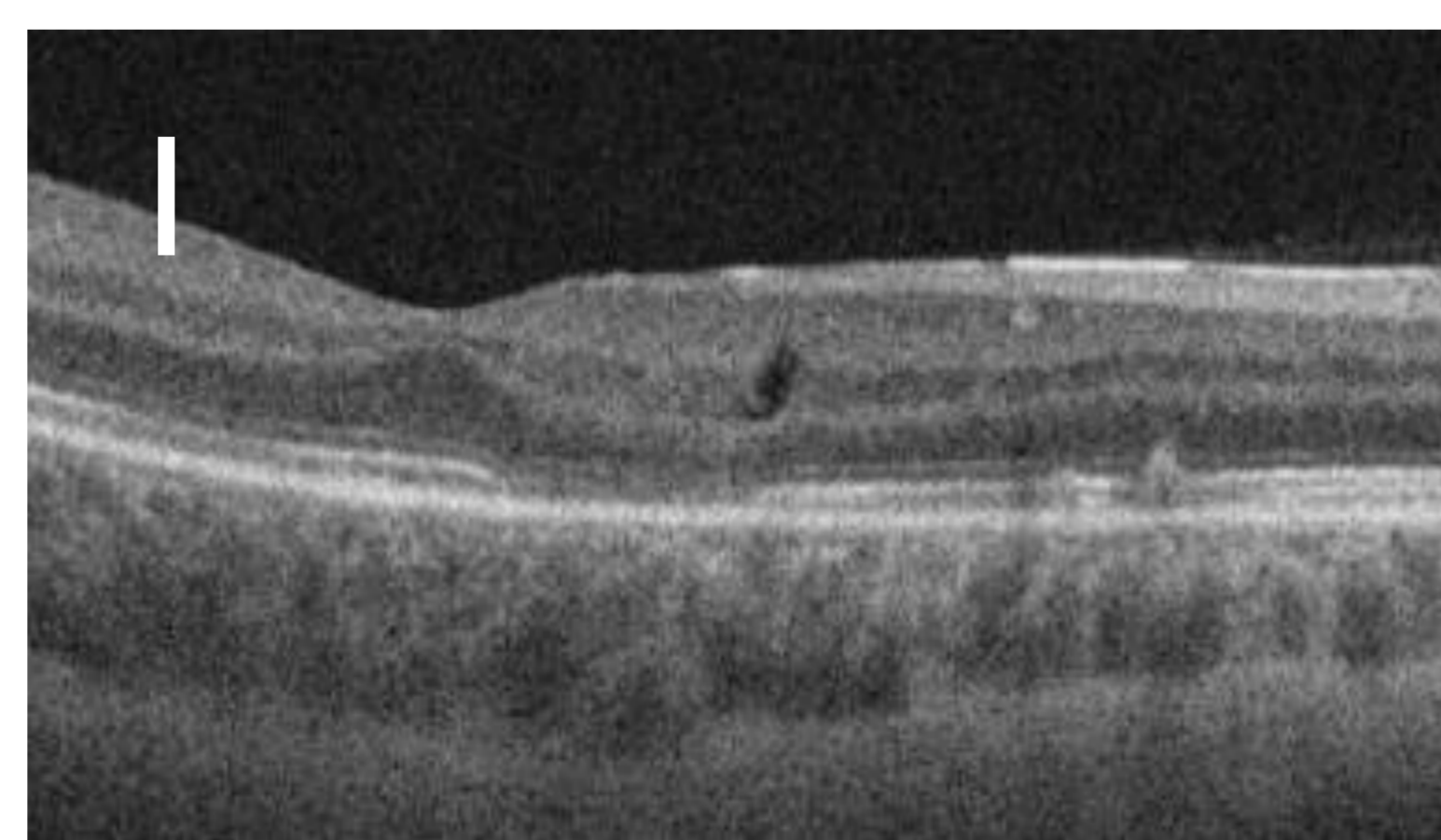
(E)(F) G) 6x6 mm OCTA of the RE showing dark areas due to blockage in the superficial capillary plexus (SCP) corresponding to the hypofluorescent white retinal lesions seen on clinical examination and early-phase fluorescein angiogram. Larger hypointense greyish black areas were noted in the deep capillary plexus (DCP), outer retina, and choriocapillaris layer



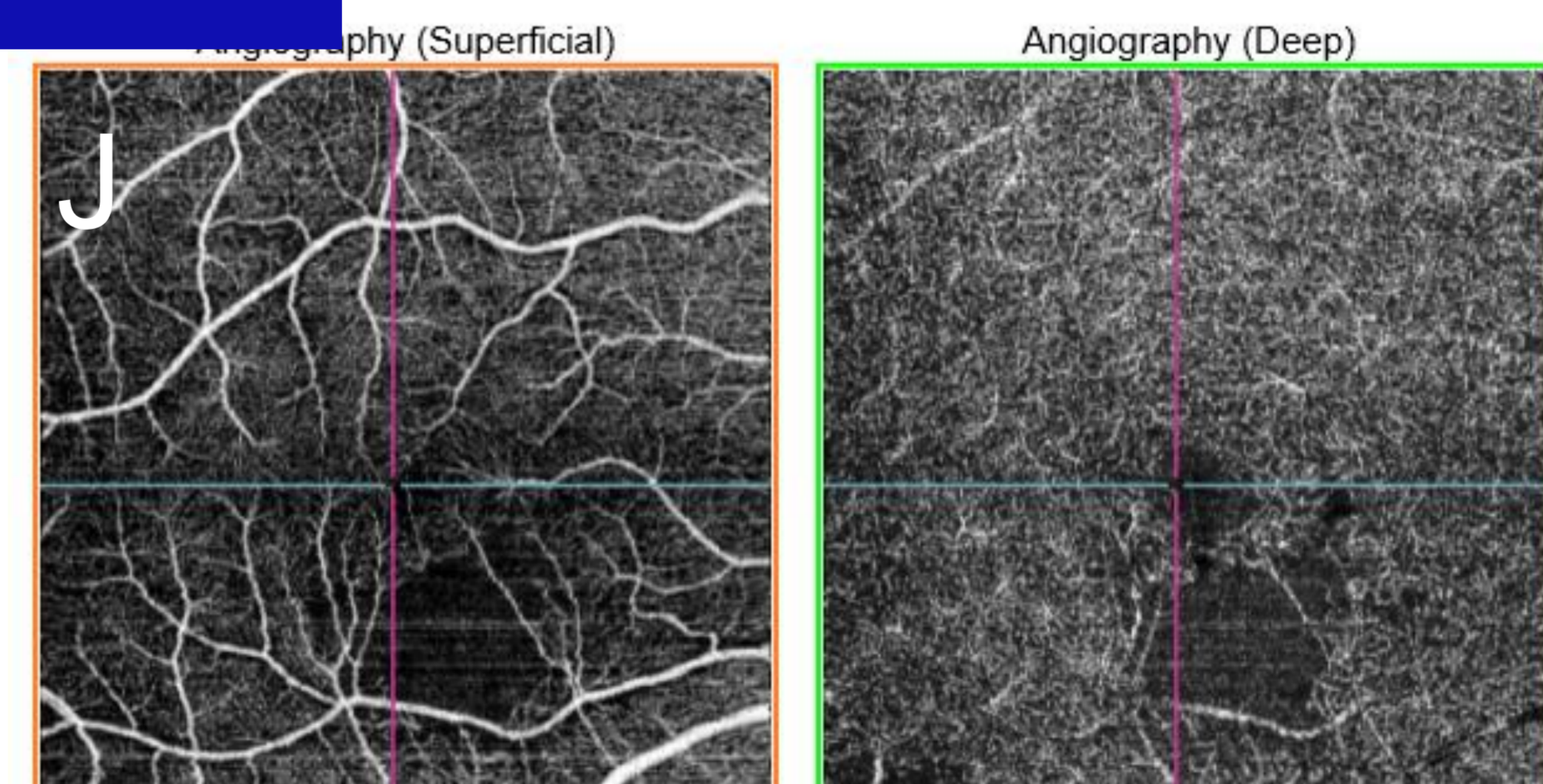
6 weeks after presentation



(H) Fundus photograph (6 weeks after presentation) showing complete resolution of white retinal lesions, as well as macular edema and SRD, with mild residual retinal pigment epithelial changes (BCVA=20/25)



(I) SD-OCT (6 weeks after presentation) showing resolution of inner retinal thickening and SRD, with appearance of inner retinal atrophy, intraretinal cysts, and disruption of ellipsoid zone and interdigitation zone



(J) OCTA (6 weeks after presentation) showing well-delineated flow deficit in both the superficial and deep capillary plexuses

Conclusions:

Optical coherence tomography angiography (OCTA) is a new non-invasive imaging modality that seems to be useful for detecting, analyzing, and monitoring occlusive complications associated with rickettsial retinitis