Patient History

A 71-year-old Hispanic male presented to the clinic with complaints of blurry vision in both eyes of 4 months duration. The patient had been followed in the clinic for dry, atrophic age related macular degeneration for numerous years. He was given a home Amsler Grid at previous visits and reported no new metamorphopsia, scotoma or decreased vision. The patient’s medical history was positive for arthritis, hypertension and asthma, which were well controlled medically. He had a history of chronic cigarette use with failed attempts at cessation through the years. Best corrected visual acuity was 20/25 OU.

Clinical Examination & Diagnostic Imaging

Slit lamp exam showed 1+ nuclear sclerotic cataracts with normal intraocular pressure of 18mmHG OU. Dilated fundus examination revealed moderate cupping with attenuation of the retinal arterioles consistent with chronic hypertension. There was evidence of soft confluent drusen and retinal pigment epithelial atrophy bilaterally. Directly nasal to the fovea OS, there was evidence of an elevated, discolored (orange) lesion (figures 1 and 2). Spectral Domain Optical Coherence Tomography (SD-OCT) was performed to obtain cross-sectional images through the lesion. SD-OCT B-scans confirmed the presence of soft, confluent drusen in both eyes. In addition, there was a subretinal heterogeneous hyper-reflective lesion nasal to the fovea with an adjacent cuff of fluid (figure 3).

OCT Angiography (OCTA) was obtained to visualize the choroidal vasculature in more detail and evaluate for the presence of a choroidal neovascular membrane (CNVM). The OCTA images demonstrated a hyper-reflective lacy network originating at the level of the choriocapillaris and extending anterior into the outer retina (figure 3).

Conclusion

Viewing the OCTA images alongside the B-scans provided outstanding resolution of the membrane. Despite the quiescent nature of this gentleman’s condition for years, OCTA was used to visualize conversion of dry, atrophic macular degeneration to the wet form and allowed for timely referral and management.

Case study courtesy of Julie Rodman, OD, FAAO