Patient History
A 62 year-old Hispanic female presented for comprehensive eye examination with complaints of diminution of the vision in her left eye over the course of months. She had a history of neovascular age related macular degeneration (ARMD) in that eye for which she had received a series of intravitreal injections in the past. Best corrected visual acuity was 20/20 OD and 20/400 OS due to longstanding geographic atrophy.

Clinical Examination & Diagnostic Imaging
On examination, she had age appropriate lenticular changes with the remainder of her anterior segment examination unremarkable. Fundoscopic examination revealed normal retinal vasculature with moderate cupping OU. The macula OD showed multiple orangish well circumscribed elevations at the level of the retinal pigment epithelium (RPE) with intervening drusen consistent with drusenoid pigment epithelial detachments (PED). (Figure 1) Adjacent to this there was evidence of paramacular subretinal fluid. SD-OCT studies demonstrated hyperreflective undulations at the level of the RPE consistent with the drusenoid PEDs. In addition, there was a hypofluorescent notch on the border of the PED which resembled a cuff of subretinal fluid consistent with choroidal neovascularization. (Figure 2) SD-OCT provided outstanding structural resolution of the lesion, however this technology was not able to delineate possible abnormal neovascular activity. OCT angiography enabled visualization of the choroidal vasculature and allowed for an in-depth analysis of the PEDs and surrounding tissue. Evident on the angiogram was evidence of abnormal vascular activity seen as a lacy network of vasculature originating at the choriocapillaris and coursing anteriorly into the outer retina. (Figure 3)

Conclusion
Based on funduscopic examination and SD-OCT alone, the patient would have been closely followed. However, OCT angiography enabled visualization of a Type 2 (classic) CNVM in a patient with previously diagnosed dry AMD, thus allowing for timely referral to a retinal specialist.

Case study courtesy of Julie Rodman, OD, FAAO