



Highlights on multimodal imaging in AMD

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Using the different imaging technology in the diagnosis and follow-up of AMD, whether dry or wet, provides many advantages. The purpose of this work is to highlight the value of incorporating multiple imaging modalities to reach an accurate diagnosis about activity of neovascular AMD, different types of drusen and progression, lesions mimicking AMD and geographic atrophy. Multimodal imaging includes colored fundus photo, near infrared imaging (IR), fundus autofluorescence, fluorescein angiography, Indocyanine green angiography, Spectral Domain OCT, Enface imaging and OCT angiography. The lack of anyone of these modalities can be compensated by thorough interpretation of biomarkers in other available modality. Colored fundus photo is essential to differentiate hard exudates from drusen, near IR photos are valuable in delineating the level of preretinal hemorrhage from intraretinal hemorrhage. Fluorescein angiography helps to detect leakage from a small CNV, OCT is mandatory to diagnose choroidal neovascularisation (CNV), to detect its activity and types of drusen, en-face OCT delineates easily any associated vitreo-retinal traction and drusenoid pigment epithelial detachments (PEDs), fundus autofluorescence has a role in the follow-up of geographic atrophy and lastly OCT angiography (OCTA) is becoming now essential to diagnose quiescent CNV

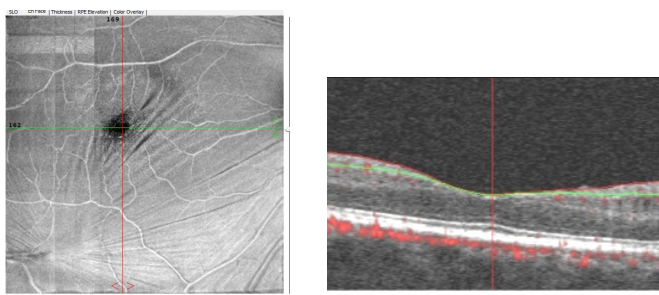


Figure 1: En-face OCT showing vitreoretinal traction not detected by B scan OCT

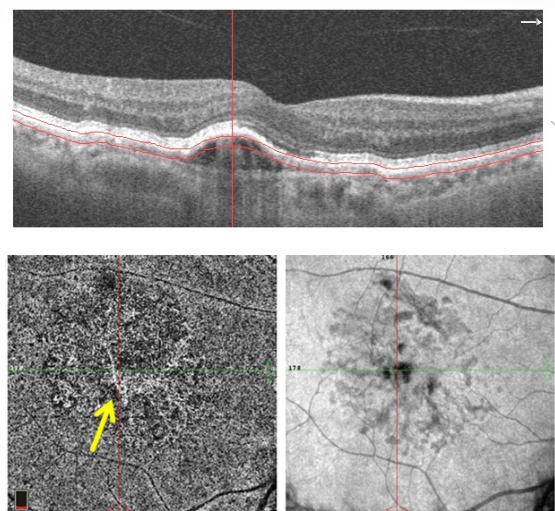


Figure 2: Quiescent CNV detected by B scan OCT as PED, OCTA at the level of choriocapillaris shows small branching neovessels of CNV.

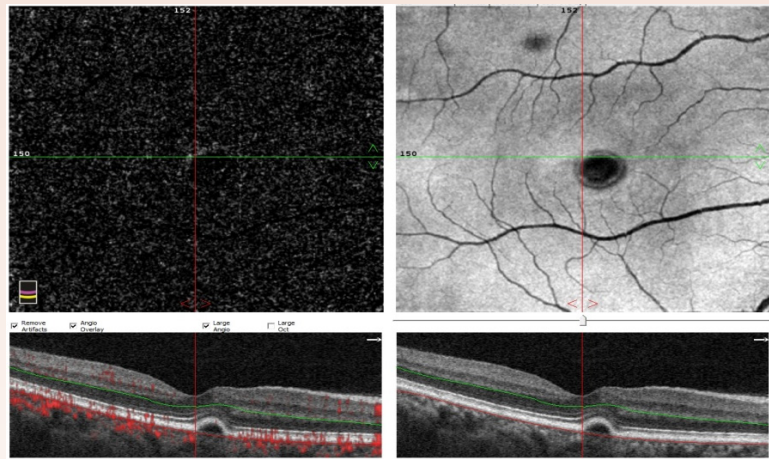


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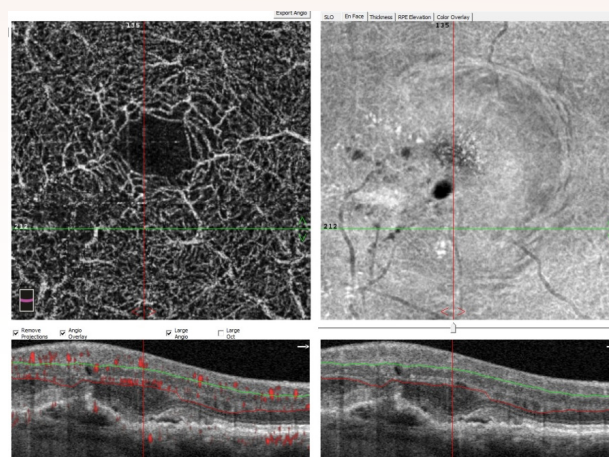


Figure 4: RAP detected by OCTA at the outer retinal layer as a branching small vessel and in OCT as a lesion extending from inner retinal layer to the choroid with notching

Biography: Zeinab Elsanabary has completed her PhD in 1991 from Cairo University. She has published about 30 publications as single author or in collaboration with others and supervised about 35 theses, as Master and Doctorate and Reviewer Member in the Egyptian Universities Promotion Committee of Ophthalmology. She is Vice CEO of Bostan Diagnostic Eye Center since 2005, a specialized center for investigative ophthalmology, a recognized and pioneer center for ophthalmic diagnosis. She was Head of Ophthalmic Diagnostic Laser Unit, Kasr El Eini Hospitals, Cairo University starting from Aug' 2011 till Aug' 2015. She was assigned as Sub-investigator in a clinical trial about treat and extends in wet AMD (Novartis) in 2013 and Principal investigator in a clinical trial about Bimatoprost SR implant for glaucoma (Allergan) in 2016 (ongoing). She has teaching duties for junior fellows. She got National Encouraging Award in Advanced Scientific Technology in the Medical Science 2001.

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