CFEH Facebook Case #61

A 68 year old Caucasian male was referred to CFEH for a macular assessment. Acuities were 6/7.5- RE and 6/9.5 LE and he takes medications for type 2 diabetes, hypertension and kidney disease. As both eyes are similar in appearance, only the right eye will be presented here. What is the macular condition seen in this patient?
ANSWER

Reticular macular disease (reticular pseudodrusen)

Colour fundus photography and red free imaging showed a reticular pattern of small, yellow-white, round and/or oval lesions known as reticular pseudodrusen (RPD). Using Infrared imaging (adjacent to OCT line scans), RPD appear as groups of hypo-reflective lesions with larger lesions accompanied by a halo-like appearance or “target” aspect. On OCT, RPD appear as well-defined, hyper-reflective deposits beneath the RPE and ELM or OPL.

RPD is frequently found in eyes with AMD but less frequently than soft drusen. The risk factors associated with RPD are similar to those of AMD and include age, gender, smoking and genetic risk factors. Recent studies have shown that the presence of RPD was a strong risk factor for progression to late-stage AMD and that showed that RPD are associated more strongly with geographic atrophy than with choroidal neovascularisation.

In this patient, other early structural changes that may precede the development of late AMD were also identified including hyper-reflective foci, subsidence of the outer plexiform layer/inner nuclear layer, hypo-reflective wedge-shaped bands consistent with nascent geographic atrophy, sub-RPE hyper-reflective columns and disruption in the ellipsoid zone and external limiting membrane overlying the drusen.