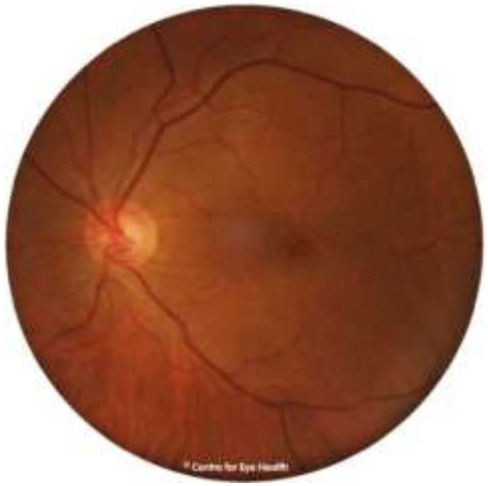
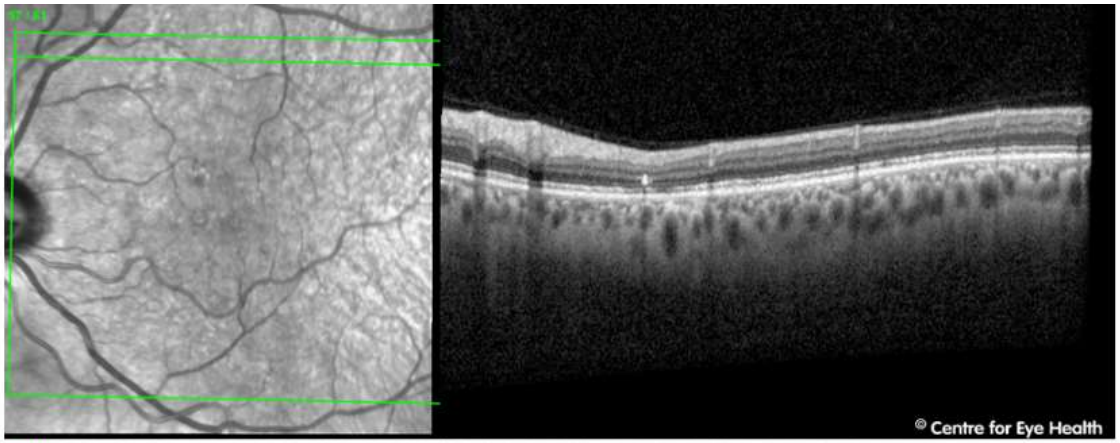
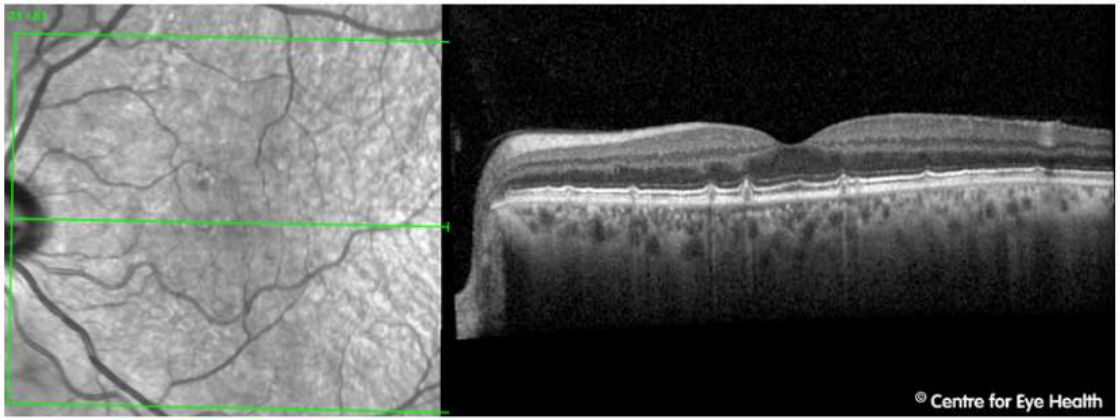
CFEH facebook Cases

CFEH Facebook Case #133

A 60 year old male presented for a macula assessment. He has systemic hypertension which is well controlled by medication and also experiences migraine headaches. This case will focus on his left eye only which has best corrected acuity of 6/7.5. Can you identify the specific changes seen in each of the 2 OCT line scans?



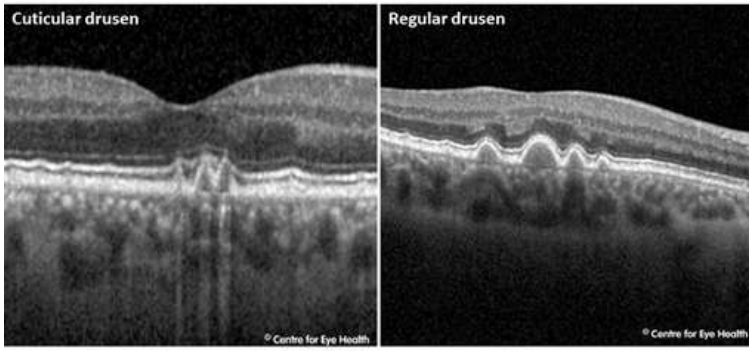




Centre for Eye Health Education
A joint initiative of Guide Dogs NSW/ACT and The University of New South Wales

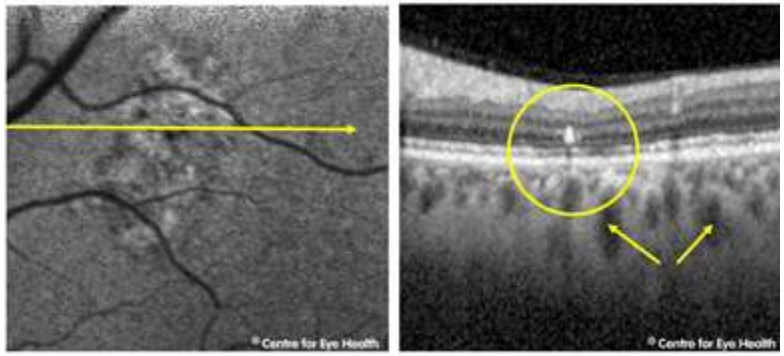
Answer

The lower OCT image in this patient shows a “saw-tooth” appearance to the drusen – a feature characteristic of cuticular drusen. The image below shows the difference in appearance between the 2 drusen types:



Cuticular drusen are located between the retinal pigment epithelium (RPE) and Bruch's membrane like hard and soft drusen, however there are several significant differences. Cuticular drusen are typically small in diameter like hard drusen but are more numerous, often coalescing. They typically have steeply sloping sides and have been referred to in the literature as having a “saw-toothed” appearance and are characterised on fluorescein angiography by a “starry-sky” appearance. Several characteristics of cuticular drusen are similar to those of soft drusen - coalescence, resorption and RPE disturbances (Balaratnasingam et al 2017) and the 2 drusen sub-types share comparable risk of progression to late AMD (geographic atrophy or neovascular AMD).

The fundus autofluorescence image shows an area of mottled hyper and hypo-AF just inferior to the superior vascular arcades . An OCT scan through the region shows thinning of the outer retinal layers (circled below) with a hyper reflective lesion likely representing pigment migration and also enlarged choroidal vessels (arrows below).



These changes are consistent with pachychoroid spectrum disease, in this case most likely a prior episode of central serous chorioretinopathy.