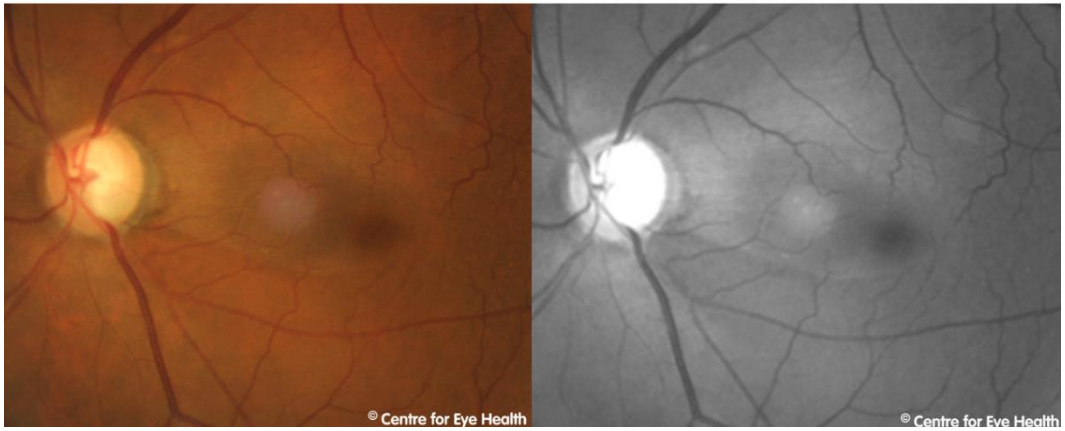
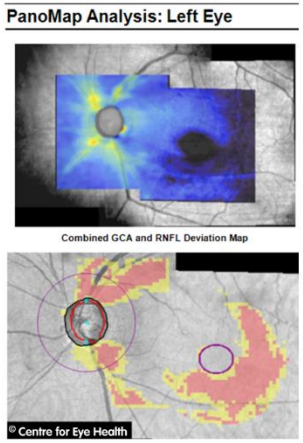
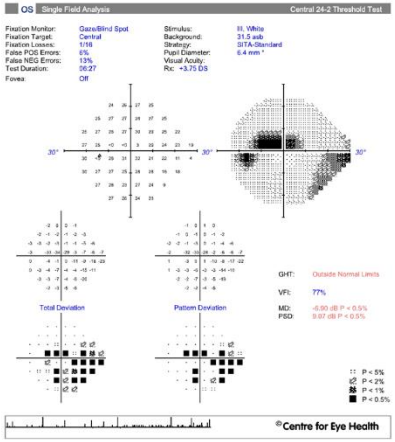
CFEH facebook Cases

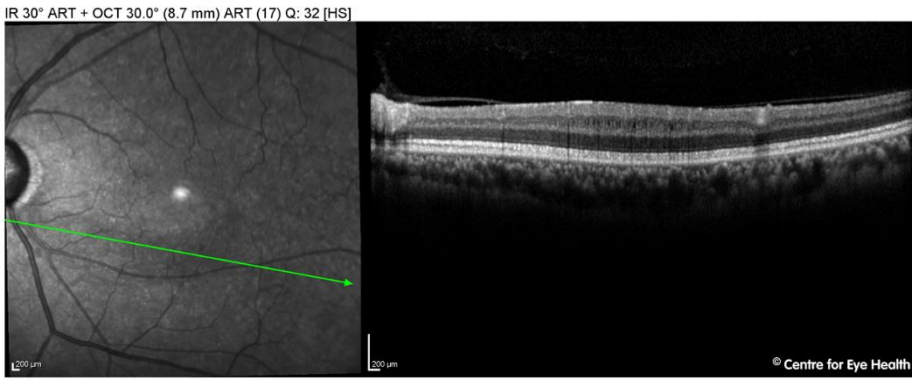
CFEH Facebook Case #130

A 62 year old male was referred for a glaucoma assessment. This case will focus on his left eye only. He had intraocular pressures of 18mmHg in each eye with average central corneal thicknesses OU. The right eye examination was unremarkable. Imaging and fields for the patient are below. Can you identify the change seen on the OCT line scans of this patient? How would you manage this patient?









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

Answer

This patient has significant optic atrophy with the Panomap showing marked loss of the RNFL and Ganglion cell complex. The location of loss matches the areas of reduced RNFL reflectivity on red-free and is concordant with the visual field defects noted in this eye. The cause of the optic atrophy may be glaucoma, however given the asymmetric presentation, this patient was sent for neuro-imaging to eliminate other potential causes of optic neuropathy.

The OCT line scan showed small elongated hypo-reflective spaces in the INL consistent with microcystic macular oedema (MME) secondary to optic atrophy. This condition is differentiated from traditional cystoid macular oedema in that no leakage is found with fluorescein angiography.

MMO has only been recently reported in the literature and was initially believed to be a finding specific to multiple sclerosis-related optic neuropathy. Since then, MME has been reported in a range of conditions causing optic atrophy or optic neuritis, including Leber's hereditary optic neuropathy, advanced glaucoma and optic nerve head drusen. The exact causative mechanism is still the subject of much debate however studies have shown that the prevalence of MME is increased with more severe RNFL/GCL thinning, indicating it is a marker for disease severity.

There is no known treatment for MME and recent studies show no consistency with regards to progression – some will improve, others worsen and some will remain stable, however there have been no documented changes to visual acuity as a result of MME.