Lower macular pigment optical density in chronic open-angle glaucoma

Professor James Loughman explains how latest research suggests a link between macular pigment levels and glaucoma

As an example, that vision impairment from glaucoma is a major contributing factor to falls and motor vehicle collisions. The impact of glaucoma on an individual’s life can be assessed by the use of self-administered vision-related quality of life questionnaires, an assessment tool that can be invaluable to the eye health professional.

MP has been shown to play a role in visual performance including glare sensitivity. The potential therapeutic benefit of dietary MP supplementation in glaucoma patients has not been studied. This trial is designed to investigate whether oral dietary MP supplementation in glaucoma patients will improve glare sensitivity as observed in its AMD counterparts. It will also study the relationship of MPOD in glaucoma patients to visual field and glaucoma-associated structural assessments as measured by OCT.

As there is evidence to suggest macular changes such as decreased central foveal thickness and retinal ganglion cell complex thickness in glaucomatous eyes, it is plausible that there may be associated MPOD loss as well.

This trial will focus particularly on the effects of MP supplementation on visual performance such as glare sensitivity. To date, the cause of disability glare among glaucoma patients is poorly elucidated. Given the evidence of beneficial visual performances in AMD and healthy individuals following dietary MP supplementation, it is tenable to hypothesise favourable outcomes among glaucoma patients. When completed in December 2014, this trial will provide useful information with regards to the therapeutic role of MP replacement in glaucoma patients.

References