

CHANGE IN THE MODULATION AND CRITICAL FLICKER FREQUENCY IN HIGH MYOPIA PATIENTS

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Purpose: We can find some optic nerve damage and ganglion cell damage in the optic neuritis and glaucoma patients, we also noted critical flicker frequency (CFF) decrease in these patients. Retinal degeneration is found in high myopia patient. Are there any changes in the modulation [%] and critical flicker frequency (CFF) in the high myopia patients? We want to use these visual function as indexes to evaluate the severity of high myopia retinopathy.

Material and Method: Thirty-four patients of high myopia (more than 8 D) were collected in our OPD. We use Cyclus Flicker Fusion Meter 731 (INTERZEAG AG, CH-8952 Schlieren, Switzerland) which can detect modulation [%] in all frequencies [Hz] and record their critical flicker frequency (CFF).

Result: Although there are fluctuation between examinations, but fortunately, this machines can cal-

culate the data automatically and plot a smooth curve for the relation of modulation [%] and frequencies [Hz]. There are statistical significance ($P=0.0003$) in critical flicker frequency between high myopic (46.91 ± 10.13 Hz) and normal (52.96 ± 3.90 Hz). We found there are decrease of critical flicker frequency (CFF) and increase of modulation [%] in all frequency in the high myopia patients.

Discussion: There is retinal degeneration in high myopia patient. According to our finding, there are decrease of critical flicker frequency (CFF) and increase of modulation [%] in all frequency. Maybe we can use the critical flicker frequency (CFF) and modulation transfer function (MTF) as indexes to evaluate the severity of retinal degeneration in high myopia patients.

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