

Favourable outcome in subliminal micropulse yellow laser treated centrally-involved diabetic macula oedema in low socioeconomic patient

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ABSTRACT

Subliminal micropulse yellow laser technology is an advanced laser technique that utilizes cell photostimulation to decrease total laser energy delivered to tissues. This method involves the delivery of short, repetitive laser pulses, with each pulse separated by enough time to allow for heat dissipation, enabling tissue cool down and preventing thermal burns. A 74-year-old diabetic woman presented with progressively worsening blurry of vision. Optical coherence tomography (OCT) of both eyes demonstrated centrally-involved diabetic macula oedema (Ci-DME) with right eye (RE) central subfield thickness (CST) of 675 μm and left eye (LE) CST of 312 μm . She underwent subliminal laser treatment for both eyes using Subliminal Multispot 577 nm-Yellow Laser as she cannot afford intravitreal anti-vascular endothelial growth factor (anti-VEGF) treatment. Six months follow-up revealed improvement, with the RE CST reduced to 337 μm and the LE CST to 252 μm , visual acuity improved from 6/60 to 6/12 in the RE and from 6/24 to 6/12 in the LE with only a single laser treatment. Micropulse laser treatment is a safe and non-damaging therapeutic option that selectively targets the retinal pigment epithelium. Theoretically, the 577 nm yellow laser light offers peak absorption by oxyhaemoglobin, minimal intraocular light scattering and pain, and negligible absorption by xanthophyll. Experts have also indicated that transfoveal treatment is safe. In this case report, we demonstrated a favourable outcome with subliminal laser treatment in a patient of low socioeconomic status and highlighted the benefit of a single-visit treatment yielding positive results.