بسم الله الرحمن الرحيم

577 Versus 810 in Management of Diabetic Macular Edema

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YELLOW MICROPULSE LASER 577-NM VS. INFRARED DIODE MICROPULSE LASER 810-NM FOR THE TREATMENT OF DIABETIC MACULAR EDEMA

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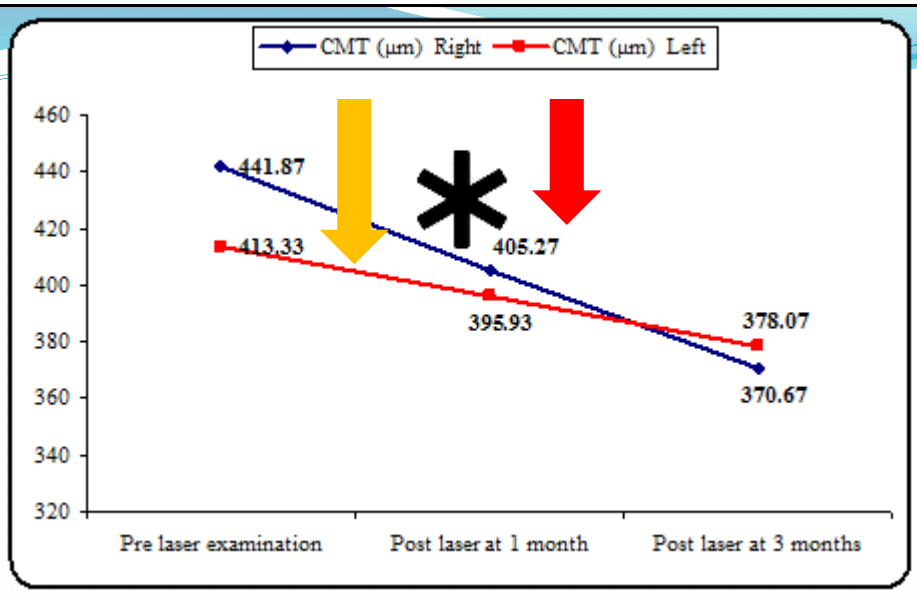
Aim & Methods

- To compare the effect of Yellow Micropulse Laser 577-nm vs Infrared Diode Micropulse Laser 810-nm in the treatment of diabetic macular edema (DME).
- 15 patients with bilateral DME were included in the study. All patients did not have any intraocular surgery or previous intravitreal injections of any drug within the past 6 months. The right eye of each patient had laser treatment with Yellow Micropulse Laser 577-nm and the left eye with Diode Micropulse Laser 810-nm. Patients were followed up by visual acuity and optical coherent tomography (OCT) at 1 and 3 months post laser treatment.

Yellow Micropulse Laser 577-nm and Infrared Diode Micropulse Laser 810-nm

Results

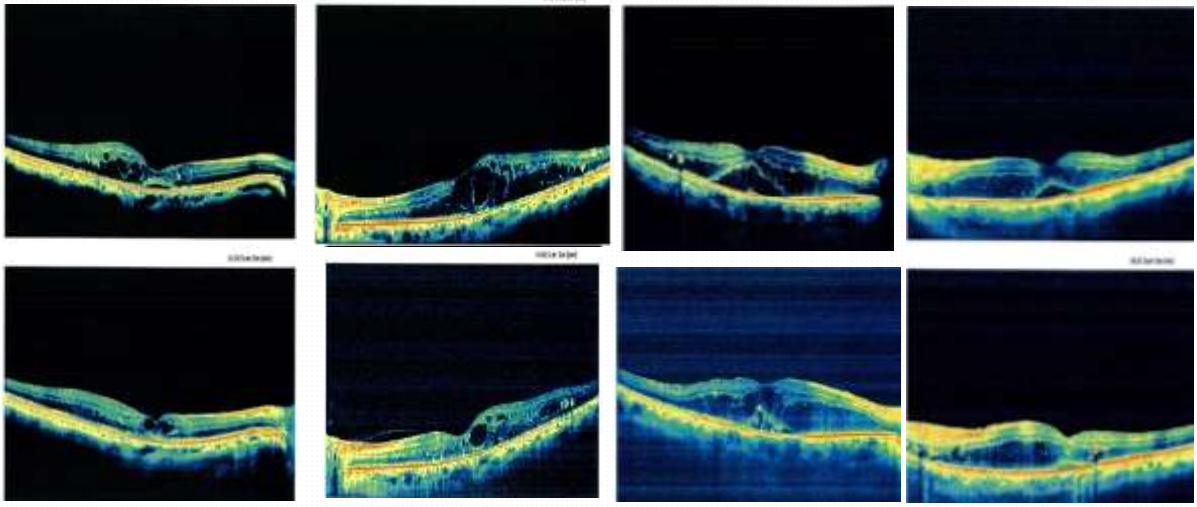
- For the Right eye (yellow laser group) the mean CMT improved from 441.87 to 370.67 at 3 month while in the left eye (diode laser group) the mean CMT improved from 413.33 to 378.07 at 3 months examination.
- For the Right eye (yellow laser group) the mean VA improved from 0.7 to 0.58 at 3 month while in the left eye (diode laser group) VA improved from 0.59 to 0.55 at 3 months examination.



Graph showing mean Central Macular Thickness of both groups pre-laser, post-laser at 1 month, and post-laser at 3 months.

Line OCT scan of the Right eye of one of our patients Pre-laser & at 3 months follow up Post Yellow laser.

Line OCT scan of the Left eye of one of our patients Pre-laser & at 3 months follow up Post Diode laser.



Conclusion

In our study we found that both 577 and 810 MP lasers when used with adequate power settings in the 5% duty cycle modes were effective in maintaining or improving visual acuity and improving central foveal thickness in the 15 patients studied. However one of our patients showed a relapse at 6 months follow-up in both eyes, and one of the patients had massive macular edema in both eyes and did not improve.

We conclude that 577 laser gives marginally better results that may require a larger group of patients and a longer follow-up for further deductions.

Thank You