

Key Words

SubLiminal laser therapy - Subthreshold laser treatment - Easyret
Diabetic Macular Edema (DME) - 577nm - Yellow laser

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Clinical data

60 year-old diabetic patient who presents with VA 20/30

Summary



Treatment of a patient with a **DME** with a combination of **577nm SubLiminal laser** and **577nm Focal laser**:

- ⇒ 550 Subliminal laser spots over the whole edematous area on OCT, with margins,
- ⇒ 8 focal thermal (continuous) laser spots directed at the largest aneurysms.

4 months after, the improvement on OCT is obvious. VA 20/25 and laser invisible both in oct and autofluorescence.

Conclusion:

SubLiminal laser therapy is an excellent therapeutic tool to treat DME patients. Subthreshold laser has proven to decrease the burden of visits and injections.

Discover the 4 steps of SubLiminal laser therapy



Discover the 4 steps of SubLiminal laser therapy:

1 Laser settings

- Wavelength: 577
 - Duty Cycle: 5%
 - Pulse duration: 200 ms
 - Spot size: 150-200 μm
 - Power: Determined by titration (not over 600 mW)
 - Spacing between spots: no
 - Titration: yes
 - Titration power: 50% of threshold power
- Laser Lens: Volk Area Centralis (0.94x)



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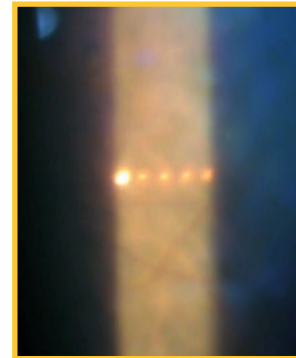


2 Titration

As each patient's retina energy-absorption is variable, individualized titration is advised to calibrate the laser energy to deliver.

A "line pattern" is used to determine the thermal threshold of each patient. The laser spots of the titration pattern are delivered successively with increased power level. The thermal threshold power level is obtained when a barely visible threshold burn is observed*. Once obtained, half of the threshold power level is used for treatment.

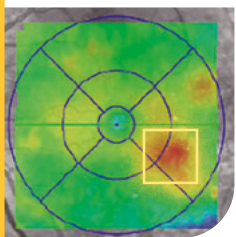
**While titrating, do not exceed 1.2W power. If no visible threshold happens at 1.2W, keep this power as a reference level and use half of it for the treatment (i.e. 600mW).*



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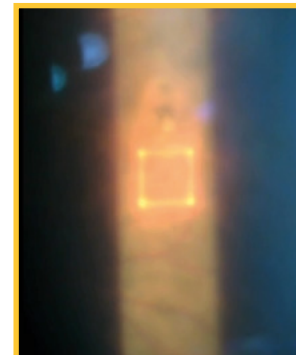
3 Treatment



Subliminal laser spots are delivered over the whole edematous area on OCT, with margins.

Select the square of the macular grid pattern to deliver the SubLiminal laser spots.

- No visible reaction must be seen during the treatment.
- There is no need to change power with different degrees of edema.
- Laser impacts must be confluent (dense treatment) and should not overlap.
- Treat large areas. Treatments will usually go between 300-800 spots.
- Transfoveal treatment is not recommended.



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4 Follow Up

Wait at least 3 months after treatment to assess the results.