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## Efficacy and safety of transscleral micropulsed laser in the treatment of glaucoma refractory to treatment

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**AuthorBlock:** Lucia Delgadillo<sup>1</sup>, Gian Franco Diez<sup>2</sup>, José Francisco Ortega<sup>2</sup>

<sup>1</sup>Consulta de Especialidad, Fundación Hospital Nuestra Señora de la Luz, Mexico, Mexico;

<sup>2</sup>Glaucoma, Fundación Hospital Nuestra Señora de la Luz, Ciudad de Mexico, Mexico;

**DisclosureBlock:** Lucia Delgadillo, None; Gian Franco Diez, None; José Francisco Ortega, None;

### Purpose

To evaluate the use of micropulsed transscleral laser (MP-TSCPC) in patients with glaucoma refractory to treatment.

### Methods

A retrospective descriptive study was performed for all patients who underwent treatment with MP-TSCPC in the Glaucoma service at Fundación Hospital Nuestra Señora de la Luz I.A.P. (FHNSL) that were receiving maximal topical and systemic treatment or who persisted with pain due to maintained high intraocular pressure (IOP). Treatment was administered using the P3 probe (Pars Plana Probe) connected to the Iridex Cyclo G6 - Glaucoma Laser System with fixed power of 2000mW, micropulse time on 0.5ms, off 1.1ms with a duty cycle of 31.33%, making a continuous sliding movement from the 9:30 to 2:30 meridians and then the 3:30 to 8:30 meridians with the probe in direct contact with the eye, directing the limbal notch to the sclerocorneal limbus, avoiding passing over the 3 and 9 meridians. IOP was measured previous to treatment and at days 1, 30, 60, 90 and 180 with Goldmann tonometer. Statistical analysis was performed using GraphPad Prism version 5.01 (GraphPad Software Inc.).

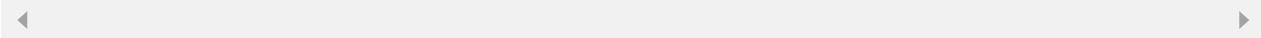
### Results

A total of 47 eyes were treated in this study. The mean age of patients treated was 50.9 and 51% of them were women. Mean intra ocular pressure (IOP) previous to treatment was 36.15 mmHg and the mean number of hypotensive medications used by patients was 2.74. The mean IOP reduced to 25.43 (p=0.0006), 17.69 (p<0.0001), 22.65(p<0.0001), 30.67(p=0.0073) and 27.22 (p<0.0001) at days 1, 30, 60, 90 and 120 respectively and the mean number of hypotensive medications was 1.98 (p=0.37), 1.54 (p=0.023), 1.18 (p=0.016), 1.22 (p=0.20) and 1.44 (p=0.99) respectively. Three patients presented severe pain. No postoperative hypertensive spike, hypotony, hyphema, fibrinoid uveitis, corneal decompensation, ptisis bulbi, choroidal detachment or cystic macular edema were reported.

### Conclusions

The use of MP-TSCPC in this study demonstrates a statistically significant decrease in IOP as well as a reduction in the number of hypotensive medications used by patients. Studies including a greater number of patients and longer follow up time are necessary.

**Layman Abstract (optional):** Provide a 50-200 word description of your work that non-scientists can understand. Describe the big picture and the implications of your findings, not the study itself and the associated details.

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