

SUMMARY

Peer Reviewed Studies (MP3)

Name of Study / Authors	Date published	Publisher/ Source	Glaucoma Stage / Type	# of Patients / # Eye	Age (Patients)	IOP Decrease	Medication Decrease	Main Outcome (Results)	Follow-Up Length	CG6 Case Settings	Conclusions
Micropulse versus continuous wave transscleral diode cyclophotocoagulation in refractory glaucoma: a randomized exploratory study. (M. Aquino / P. Chew) ▶ Link	Apr 29 2014	Clinical & Experimental Ophthalmology	Refractory	48 patients	Mean Age MP 63.5 CW 66	Mean Drop 52%	N/S	75% overall success rate (52% @ 18 mo)	18 mo	2000mW / 50x2 sec (per each quadrant)	"TS CPC MP and CW are effective in lowering IOP. The MicroPulse mode provided a more consistent and predictable effect in lowering intraocular pressure with minimal ocular complications."
Micropulse transscleral diode laser cyclophotocoagulation in the treatment of refractory glaucoma. (A. Tan / P. Chew) ▶ Link	Nov 3 2009	Clinical & Experimental Ophthalmology	Refractory	38 patients / 40 eyes	Mean Age 63.2	Mean Drop 35% (16 mmHg drop)	Mean Drop 0.8 (from 2.1 to 1.3)	72.7% success rate (@1.3 treatment)	18mo (Mean Follow-up 16.3 mo)	2000mW / 100 sec (50 sec per each hemisphere)	"Micropulse TSCPC is a safe and effective method of lowering IOP in cases of refractory glaucoma and comparable with conventional TSCPC."
Micropulse Cyclophotocoagulation: Initial Results in Refractory Glaucoma. (M. Emanuel / S. Goyal) ▶ Link	Vol. 26 #8 Aug 2017	J Glaucoma	Refractory	84 Eyes	Mean Age 74	Mean Drop 41.2%	Mean Drop 1.35 (from 3.3 to 1.9)	IOP Mean drop 15.5 mmHg @ 6mo 18 mmHg @ 12mo	Mean Follow-up 4.3 mo	Mean Power 1939mW Mean time 319 sec (160x2 per each hemisphere)	"The outcomes of our study are promising, with good evidence of the IOP-lowering effects of MP-TSCPC and decreased need for ocular antihyper-tensive medications postlaser at 6 months."
Outcomes of MicroPulse Laser TSCPC on Pediatric vs Adult Glaucoma Patients. (J. Lee / S. Lin) ▶ Link	Vol. 26 #10 Oct 2017	J Glaucoma	Moderate to Refractory	34 patients / 36 eyes	Mean Age 60.6	Mean Drop Adults: 33.2% Pediatric 21%	Mean Drop 0.5 (from 3.0 to 2.5)	Adults: 72.2% Pediatric: 22.2% @ 12 mo	12 mo (1,3,6 & 12)	Mean Power 2000 mW Time = 160 sec (80 x2 per each hemisphere)	"MP-TSCPC is a safe procedure in pediatric and adult glaucoma patients, but the IOP reduction does not last long in pediatric patients."
Treatment Outcomes of Micropulse TSCPC in Advanced Glaucoma (IQ 810 / MP). (S. Kuchar / M. Moster) ▶ Link	31:393-396 Dec 2015	Laser Med Science (Springer-Verlag)	Refractory	19 patients	Mean Age 71.2	Mean drop 40.1%	Mean Drop 0.7 (from 2.6 to 1.9)	73.7% success rate @ 1 st treatment 89.5% success rate @ 2 nd treatment	Mean Follow-up 60.3 days	Mean Power 2000mW Time 100 to 240 sec (50 to 120 sec per each hemisphere)	"The novel MP-TSCPC laser had a high rate of surgical success after a short follow-up period in patients with advanced glaucoma."
Long-term Efficacy of Micropulse Diode Transscleral Cyclophotocoagulation in the Treatment of Refractory Glaucoma. (M. Aquino / P. Chew) ▶ Link	2017	Laser Med Science (Springer-Verlag)	Refractory	14 patients	Mean Age 59.9	Mean drop 39%	Mean Drop 0.7 (from 1.8 to 1.1)	67% success rate (14 pts @ 39% IOP drop)	Mean Follow-up 78 mo	2000mW / 50x2 sec (per each quadrant)	"Micropulse diode transscleral cyclophotocoagulation was effective in the long term IOP control of refractory glaucoma."

SUMMARY

Other Clinical Evidence (MP3)

Name of Study / Authors	Date published	Publisher/ Source	Glaucoma Stage / Type	# of Patients / # Eye	Age (Patients)	IOP Decrease	Medication Decrease	Main Outcome (Results)	Follow-Up Length	CG6 Case Settings	Conclusions
Early Outcomes of Micropulse Diode Transscleral Cyclophototherapy for the Treatment of Mild to Moderate Glaucoma. (M. Aquino / P. Chew) ► Link	Nov 18 2017	Korean Glaucoma Society Annual Meeting	Mild to Moderate	12 patients / 12 eyes	Mean Age MP 63.5 CW 66	Mean Drop 35.9% @ 1 mo	Mean Drop 0.8 (from 3.2 to 2.4)	63.6% overall success rate	Mean Follow-up 4.8 mo	2000mW / 50x2 sec (per each quadrant)	"Micropulse diode cyclophototherapy is a safe and effective method of lowering IOP even in cases of mild to moderate glaucoma."
The benefits of micropulse TSCPC for early-stage glaucoma treatment. (R. Noecker) ► Link	Vol. 13 #9 Nov 2017	Ophthalmology Times Europe	Mild to Moderate	95 patients	Mean Age N/A	Mean Drop 30.3% @ 12mo	Mean Drop 1.6 (from 3.0 to 1.4)	N/A	Mean Follow-up 12 mo	2000/2500mW 90 sec (per each hemisphere)	"In addition to attacking the disease on the inflow front, there is evidence that IOP lowering is causal to a dual mechanism of decreased aqueous production and increased porosity producing uveoscleral outflow action."
Micropulse transscleral diode laser cyclophotocoagulation: Mid to long term results. (M. Masis / S. Lin) ► Link	March 2017	AGS	Mild to Late Stage	57 patients	Mean Age 67	Mean Drop 28.9%	Mean Drop 0.2 (from 3.5 to 3.3)	IOP Mean drop 6.9 mmHg	Mean Follow-up 21.5 mo	2000/2500mW 90 sec (per each hemisphere)	"Micropulse TCP is effective in lowering IOP in the majority of patients in this study in a mid-long term follow up, and appears safe with no major complications."
MicroPulse Trans-scleral Cyclophotocoagulation (mTSCPC) for the Treatment of Glaucoma Using the MicroPulse P3 Device. (N. Radcliffe / S. Vold / Ike Ahmed) ► Link	March 2015	AGS	Moderate to Late Stage	45 patients / 48 eyes	N/A	Mean Drop 29.8% @ 3 mo	Mean Drop 0.9 (from 3.3 to 2.4)	21.6% at Week 1 30.0% at Month 1 29.8% at Month 3	3 mo	Mean Power 2000-2250mW Time=100 to 180 sec (50 to 90 sec per each hemisphere)	"The mTSCPC procedure is a promising new treatment for glaucoma that offers a safe and effective alternative to established, more destructive treatment modalities."