
Title: Transscleral Diode Cyclophotocoagulation in Treatment of Glaucoma

Author: Farraová et al. (Slovak Republic)

Journal/Event: Journal Czech and Slovak Ophthalmology, 76 (2020), No. 5, p.236–242

Follow-up: 12 months

Sample Size: 81 eyes

Anesthesia: Retrobulbar

Results: 33.5 % average IOP reduction

Complications: 6 % hypotony; 10 % uveitis

Notes: NA

Title: Transscleral Cyclophotocoagulation in Refractory Glaucoma in Eyes with Good Vision

Author: Natalia Palarie et al. (Moldova)

Journal/Event: 9th Black Sea Ophthalmological Society Congress, September 24-26, 2021, Chisinau, Republic of Moldova: abstract book, p. 45.

Follow-up: 12 months

Sample Size: 62 eyes

Anesthesia: NA

Results: 31.3 % average IOP reduction;

86% success rate (reduction of antiglaucoma drops and IOP between 11 – 21 mmHg)

Complications: Non

Notes: IOP stabilizes 3 months post-treatment; Treatment was conducted in a slow burn setting P =1.2 W, t = 4 s, pop-titrated.

Title: Treatment of Glaucoma Using Transscleral Cyclophotocoagulation in a Micropulse Technique in a Low-income Setting

Author: Dr. Martin Kotula et al. (Germany/ Tanzania)

Journal/Event: DOG Congress 2021 (Presentation)

Follow-up: 9 months

Sample Size: 50 eyes

Anesthesia: Retrobulbar

Total Energy: 127 J ±10 J

Results: 33 % average IOP reduction;

70 % success rate (IOP reduction >20 %; IOP 6–21 mmHg)

Complications: NA

Notes: NA

Title: Glaucoma Treatment by Transscleral Cyclophotocoagulation in Micropulse Technology in a Low-income Setting

Author: Dr. Martin Kotula et al. (Germany/ Tanzania)

Journal/Event: Die Ophthalmologie 2022

Follow-up: 9 months

Sample Size: 50 eyes

Anesthesia: Retrobulbar

Total Energy: 127 J ± 10 J

Results: 44.1 % IOP reduction at 3 months, 47.1 % at 9 months;
71% success at 3 months, 65% at 9 months (IOP reduction >20 %; IOP 6–21 mmHg)

Complications: 4.9 % hypotony

Notes: NA

Title: Transscleral μCPC Laser in Glaucoma

Author: Dr. Michele Petitto (Venezuela)

Journal/Event: Congresso Nacional e Internacional de Oftalmología Barranquilla 2022
(Oral Presentation)

Follow-up: 12 months

Sample Size: 173 eyes

Anesthesia: NA

Total Energy: NA

Results: 23.5% IOP reduction; medication reduced from 2.6 ± 1.0 to 1.5 ± 1.0

Complications: 21 % intraoperative pain, 2 % Iritis, 0.53 % Mydriasis, 0 % phthisis bulbi

Notes: μCPC is utilized for eyes with good vision. Available option for patients at surgical risk or seeking non-incisional therapy.

Title: Cyclophotocoagulation with microsecond pulses – One Year Outcome

Author: PD Dr. med. Bernd Kamppeter (Germany)

Journal/Event: DOC Congress 2022 (Oral Presentation)

Follow-up: 12 months

Sample Size: 11 eyes

Anesthesia: Parabolbar

Total Energy: 120 J

Results: 31% IOP reduction

Notes: Suitable when CPC is too aggressive and SLT doesn't achieve target pressure.

Title: Cyclophotocoagulation with Microsecond Pulses (μCPC): 6-month Data from a Real-Life Study

Author: Prof. Dr. med. Anselm Jünemann et al. (Germany)

Journal/Event: DOG Congress 2022 (Poster)

Follow-up: 6 months

Sample Size: 20 eyes

Anesthesia: Local with analgesedatives

Total Energy: 120 J

Results: 39% IOP reduction; medication reduced from 2.1 ± 1.8 to 1.2 ± 0.6

Complications: postoperative non, in particular no intraocular irritation; intraoperative 20 % mild-moderate pain; 10 % subconjunctival hemorrhages.

Notes: μCPC allows effective IOP lowering combined with a good safety profile.

Title: A Retrospective Comparison of Continuous Wave and Micropulse Transscleral Laser Cyclophotocoagulation for Refractory Glaucoma in African Eyes

Author: O. Oderinlo et al. (Nigeria)

Journal/Event: Edorium Journal of Ophthalmology 2023, 6(1), 1–6

Follow-up: 12 weeks

Sample Size: 52 eyes

Anesthesia: Retrobulbar

Total Energy: 110–130 J

Results: μCPC: 33.5% IOP reduction; CPC: 34% IOP reduction; success rates μCPC 78.6%, CPC 63.2% (IOP between 6 and 21mmHg, or IOP between 22–26 mmHg and IOP reduction > 30% with or without medications)

Complications: No intraoperative complications; 84.6% without postoperative complications.

Note: Transillumination was used for localization of ciliary body band.

Title: Microcyclophotocoagulation in Glaucoma Treatment: A Medium-Term Follow-up Study

Author: B. Bolek et al. (Poland)

Journal/Event: Journal of Clinical Medicine 2023; 12, 4342

Follow-up: 18 months

Sample Size: 64 eyes

Anesthesia: NA

Total Energy: 120 – 160 J

Results: 32.5% IOP reduction; significant medication decrease, qualified success 32.5 % (IOP reduction > 20 % and < 21 mmHg during follow-up), complete success 3.1 % (cessation of antiglaucoma medications)

Complications: no significant intraoperative or postoperative complications; 1.6% hypotony; 3.1% uveitis.

Notes: NA

Title: Combination of Microsecond Pulse Cyclophotocoagulation and Anti-VEGF Injections in Neovascular Glaucoma

Author: Natalia Palarie (Moldova)

Journal/Event: EGS Congress 2024 (Poster); DOC 2024 (Presentation);
1st Regional Glaucoma Symposium 2024 (Presentation); SEEOS 2024 (Presentation)

Follow-up: 6 months

Sample Size: 67 eyes

Anesthesia: NA

Total Energy: 145–160 J

Results: 35.1% IOP reduction;
74 % success (reduction in number of antiglaucoma drops and IOP between 11–21 mmHg)

Complications: No hypotony or other complications

Notes: VEGF inhibitor injection and μ CPC were combined.

Title: Our Experience with μ CPC in Glaucoma

Author: Natalia Palarie (Moldova)

Journal/Event: DOC Congress 2024 (Booth Talk)

Follow-up: 24 months

Sample Size: 72 eyes

Anesthesia: NA

Total Energy: NA

Results: 50 % IOP reduction, reduction in number of antiglaucoma drops from 3 to 2
75% success (IOP 11–21 mmHg, no surgery, reduced medication)

Complications: non, with no significant risk for hypotony

Notes: refractory and complex cases were included.

Title: μ CPC Glaucoma Treatment – 24 Month Follow-Up

Author: PD Dr. med. Bernd Kamppeter (Germany)

Journal/Event: DOC Congress 2024 (Booth Talk)

Follow-up: 24 months

Sample Size: 10 eyes

Anesthesia: Parabolbar

Total Energy: 130 J

Results: 46.1% IOP reduction; reduced medication

Complications: Fewer complications compared to CPC.

Title: MicroCPC vs. Cyclodestructive Therapy in the Management of Refractory Glaucoma – 18 Month Follow-Up

Author: Luis M. Oviedo MD et al. (Venezuela)

Journal/Event: ESCRS 2024 (Poster)

Follow-up: 18 months

Sample Size: 80 eyes (4 groups: μCPC, CPC, Mixed, Cryotherapy)

Anesthesia: NA

Total Energy: NA

Results: 50–63% IOP reduction; medication and pain reduced

Complications: Few, temporary.

Notes: CPC and mixed approach (CPC + μCPC) achieve most significant IOP reduction.

Title: μCPC – Safe and Effective IOP Reduction: Results of 12 Months Follow-Up

Author: Prof. Dr. Anselm Jünemann (Germany)

Journal/Event: DOC Congress 2025 (Booth Talk)

Follow-up: 12 months

Sample Size: 14 eyes

Anesthesia: Local with analgosedatives

Total Energy: 120 J

Results: 29.9% IOP reduction; reduction in number of antiglaucoma drops from 4.5 to 2.6, 50% medication-free

Complications: postoperative non - no intraocular irritation and no impairment of pupillary function, intraoperative mild/moderate pain (21.4%); conjunctival bleeding (14.3%)

Notes: μCPC closes laser treatment gap between SLT and CPC.

Title: Efficacy and Safety of a Microcyclophotocoagulation Protocol in Glaucoma: 6 Months Follow-Up

Author: T. Gil-Martínez et al. (Spain)

Journal/Event: WGC 2025 (Poster)

Follow-up: 6 months

Sample Size: 29 eyes

Anesthesia: NA

Total Energy: 106 J

Results: 30% IOP reduction; medication reduced by 2 hypotensive drugs on average

Complications: 51.7% without complications, mild anterior uveitis (24.1%); transient mydriasis (13.8%), most complications were mild and resolved promptly with medical treatment

Notes: NA