



A- A+

The Efficacy and Safety of Micropulse Photocyclophotocoagulation in the Treatment of Refractory Advanced Pediatric Glaucomas

[View Session](#)

[View Presentation](#)

[Add to Schedule](#)

[Print Abstract](#)

Posterboard#: B0181

Abstract Number: 703 - B0181

AuthorBlock: *Bibiana Jin Jin Reiser*¹

¹Ophthalmology, USC Eye Institute/Children's Hosp, Los Angeles, California, United States;

DisclosureBlock: Bibiana Jin Jin Reiser, Bausch & Lomb Code C (Consultant), Retrophin Code F (Financial Support)

Purpose

Management of pediatric glaucoma is uniquely challenging. Surgical therapy is often the therapy of choice for long term control of intraocular pressure, with cyclodestructive procedures being the last option for many advanced refractory cases.

In this study, we retrospectively reviewed the outcomes of micropulse laser cyclophotocoagulation (lowering of intraocular pressure, use of glaucoma medications) as well as complications (rates of failure, hypotony, and increased ocular surface disease) in advanced cases of refractory pediatric glaucomas (primary congenital, juvenile open angle, aniridia, and glaucoma following cataract surgery) to study the efficacy and safety of this noninvasive procedure.

Results have been published in the adult literature, but this is the first study in the pediatric population.

Methods

A retrospective data analysis was performed on all patients who underwent micropulse laser cyclophotocoagulation (MP-CPC) from January 2017 to November 2018.

Inclusion criteria:

Refractory glaucoma who underwent MP-CPC between January 2017 and October 2018.

Patient age: 0-18 years.

Surgery records was searched for eligible subjects who have undergone either MP-CPC in at least one eye within the described timeframe.

Data was collected from medical record review would include: demographics, diagnosis, medical history, surgical history, laterality, pre- and post- operative IOP, pre- and post- operative medications, surgical parameters including time and power of laser treatment, need for future medical or surgical intervention, and complications.

Results

There were 20 eyes of 15 patients identified who fulfilled the inclusion criteria (refractory pediatric glaucoma and age 0-18). All 20 eyes achieved IOP lowering following the procedure and decreased number of medications following the procedure. There were 6 eyes of 4 patients who required a subsequent glaucoma procedure to achieve target intraocular pressures. There were no other complications.

Conclusions

Micropulse laser cyclophotocoagulation is a safe and efficacious procedure in cases of advanced refractory pediatric glaucomas.

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.

Management of pediatric glaucoma is uniquely challenging. Surgical therapy is often the therapy of choice for long term control of intraocular pressure, with cyclodestructive procedures being the last option for many advanced refractory cases. Traditional continuous pulse cyclodestructive lasers can cause the pressure to be too low and cause irreversible damage to the eye if overtreated but micropulse cyclodestructive lasers have reported to have a higher safety profile. In this study, we studied how well this noninvasive procedure performed and how safe it was to those eyes with advanced disease that would otherwise require a much more invasive surgery.

Results have been published in the adult literature, but this is the first in the pediatric population.

