

SAFETY AND EFFICACY OF DIODE  
LASER TSCPC

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Glaucoma resistant to conventional  
management (maximally tolerated medical  
therapy, one or more glaucoma surgeries)

Refractory glaucoma such as neovascular, uveitic, and angle recession glaucoma, cases of previously failed glaucoma surgery, and other secondary glaucomas are usually known as poorly responsive to traditional glaucoma medical and surgical procedures.

Different treatment modalities have been used for treatment of refractory glaucoma such as shunt procedures e.g. Ahmed glaucoma valve (AGV) and cyclodestructive procedures.

Diode laser (810 nm wavelength) either: transscleral or with an endoscopic probe is used to perform CPC.

- The diode laser is preferred over other wavelengths since melanin pigments in the ciliary epithelium better absorb this wavelength and therefore causes more efficient destruction with less inflammation.

Two techniques are used for diode laser transscleral cyclophotocoagulation standard (audible pops) technique and slow coagulation technique.

- Refractory glaucoma may be primary open angle glaucoma, primary angle closure, neovascular glaucoma post penetrating keratoplasty, silicone oil induced, uveitic, aphakic, psedophakic.

- Diode laser cyclophotocoagulation can be applied in different methods: Transscleral using G-probe™ or Micropulse P3 probe™ and Endoscopic.

- Laser treatment of the ciliary body and ciliary processes aims at decreasing aqueous production results in decreasing intraocular pressure.

- Advantages of diode laser over the main alternatives as filtration or drainage device surgeries include
  - Technical ease of the procedure.
  - Quicker recovery
  - None of the risks specific to intraocular surgeries.

- Light energy is generated from a semiconductor solid state diode laser system



- The G-probe centers the fiberoptic pit and is designed such that when placed approximately 1.2 mm from the corneoscleral limbus, it directs the laser beam posteriorly to ablate the ciliary processes. The design of the G-probe encourages orientation of the fiberoptic parallel to the visual axis for efficient delivery of laser energy to the ciliary processes.

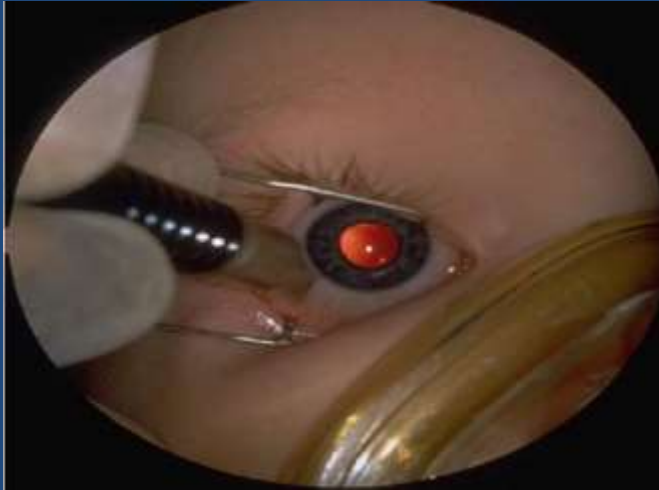


- Cyclodiode laser is commonly used for refractory glaucoma with poor visual potential; however, it is becoming an increasingly attractive alternative in the management of less advanced glaucoma with good visual potential.

- Diode laser TSCPC is a simple, effective and safe procedure, which permits an improvement in the quality of life of patients with refractory glaucoma through the diminution of the number of anti-glaucoma drugs, the sustained reduction of IOP and the resolution of painful symptoms.

- Fixed power protocol with power 2 W in 2 seconds time with total treatment of 16 shots regardless pop sounds.

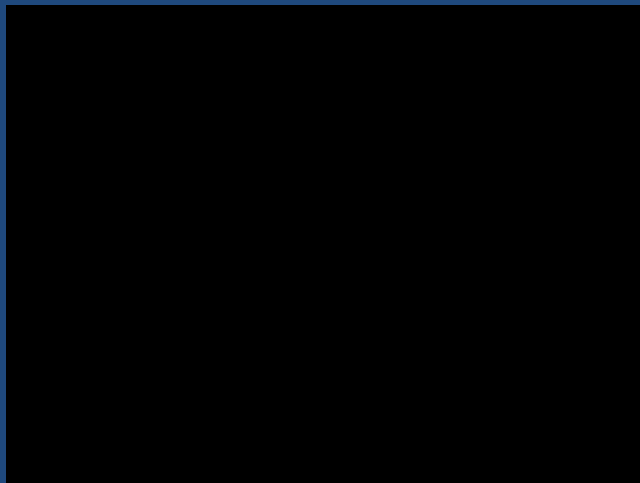




- MPCPC is applied using a customized probe that is used to apply the laser in a continuous painting fashion, rather than individual burns, and to pars plana rather than the pars plicata.

- Pain
  - Hyphema
  - Mild
  - Moderate
  - Severe
  - Hypotony
- ANTERIOR SEGMENT REACTION

- Diode laser transscleral cyclophotocoagulation (TSCPC) is a simple, effective and safe procedure, which permits an improvement in the quality of life of patients with refractory glaucoma through the diminution of the number of anti-glaucoma drugs, the sustained reduction of IOP and the resolution of painful symptoms.



THANK YOU