supra 810 for SubCycl®

SubLiminal® Cyclophotocoagulation

Glaucoma Treatment
**SubLiminal® Cyclophotocoagulation**

SubCyclo® is a new nondestructive laser procedure for the treatment of glaucoma.

Based on the transcleral cyclophotocoagulation principle, it relies on the 810 nm SubLiminal® stimulation of the ciliary body, producing the aqueous humour, and the uveoscleral pathway, secondary route of the aqueous outflow.

This procedure can be performed thanks to the combined use of the Quantel Medical Supra 810 laser and the Quantel Medical SubCyclo® probe.

![Tip of the probe positioned at 3 mm posterior to the limbus. Probe perpendicular to the eyeball.](image)

Laser treatment delivered by moving the tip of the probe in a continuous sliding motion:
- from 9:30 to 2:30 (superior quadrant)
- from 3:30 to 6:30 (inferior quadrant)

---

**Supra 810 - SubLiminal® Technology**

Composed of a train of extremely short microsecond pulses of which the duration and the intervals are fully adjustable, this subthreshold treatment mode allows a precise management of the thermal effect on the targeted tissues and preserves the structures of the ciliary body.

![Graph of power and time intervals for Supra 810](image)

---

**SubCyclo® Laser Probe**

The SubCyclo® laser probe features a unique needle design allowing a perfect and accurate probe positioning during the treatment which can be enhanced thanks to ultrasound biomicroscopy or transillumination techniques.

The tip of the needle also features a glass ball ensuring an easy and comfortable sweeping motion.
**SubCyclo® Clinical Data**

A new treatment for advanced and end-stage glaucoma

Primary angle glaucoma, primary angle closure glaucoma, pseudo-exfoliation, neovascular glaucoma, glaucoma associated with steroid uses, uveitis and after keratoplasty surgery

A very efficient non thermal procedure leading to a reduction in the medication regimen

Significant and persistent reduction in IOP at 9 months

![Graph showing IOP reduction with SubCyclo](image)

- Mean number of medication:
  - Before treatment: $3.4 \pm 1.7$
  - After treatment: $2.9 \pm 1.6$

30% decrease from baseline and less than 21 mmHg

SubCyclo® preserves the structures of the ciliary body (no destructive effects) and improves the uveoscleral drainage

After treatment:
- No anatomical damage or visible lesion have been observed by ultrasound biomicroscopy
- UBM shows a thin space between sclera and ciliary body which may correspond to the presence of suprachoroidal fluid

SubCyclo® avoids the side effects of the thermal cyclophotocoagulation procedure

No serious side effects such as intraocular inflammation after treatment
No severe complications such as phthisis bulbi, persistent hypotony, or cystoid macular edema

A repeatable treatment

A safe treatment potentially allowing for earlier laser interventions

---

(1) Efficacy, tolerability, side effects, anatomical effects (UBM) of SubCyclo® subthreshold cyclophotocoagulation. 9-month study (43 eyes / 34 patients) presented at the French Society of Ophthalmology 2017 (SFOD). Dr. Yves Lachkar and Dr. Nassima Benhatchi - Glaucoma Institute, Saint Joseph Hospital, Paris (France). Data on file.
Supra 810: A versatile laser

One single laser probe: Two glaucoma treatments

Quantel Medical SubCyclo® laser probe can be used for both SubLiminal® and thermal treatment procedures.

One laser: Two clinical applications

Although designed for the SubCyclo® laser therapy, Supra 810 can also be used to perform all the usual 810 nm glaucoma and retina treatments.

When used in Retina treatment mode, Supra 810 can be connected to various delivery systems, such as slit lamp, LIO, operating microscope and laser probes.
SUPRA 810 nm

- Laser Source: Solid State Technology
- Wavelength: 810 nm
- Power at tissue up to: 3W
- Pulse duration: 6.01 s to continuous
- Aiming beam: 605 - 660 nm
- Repeat interval: 6.1 - 0.2 - 0.5 - 0.5 - 0.7 s
- Emission modes: Single, repeat, continuous, painting
- SubLiminal® Mode (duty cycle from 5% to 35%)
- Size: 14.5” (H) x 33 (L) x 36.7 (P) cm
- 4.79” (H) x 10.83” (W) x 10.07” (D)
- Weight: 9.5 kg – 21 lbs
- Cooling: by Peltier effect
- Power requirements: 100 to 240 VAC, 350 VA, 50/60 Hz

DELIVERY SYSTEMS

- Slit lamp adapters
- Slit lamp compatibility: Quantel Medical slit lamp, Haag Streit 900 BM & BG and clones Zeiss 305L, Zeiss 1205L, Zeiss 130S & CSO 980
- Spot size: 100 µ to 1000 µm
- Laser indirect ophthalmoscopes
  - Heine Omega 500 (integrated laser adapter)
  - Keeler Vantage Plus (external laser adapter)
- Laser probes
  - Straight 20, 23, 25 G
  - Curved 20 G
  - Flexible curved 23, 25 G
  - Illuminated flexible curved 23, 25 G
  - Steerable 23, 25 G
  - SubCyclo® probe
  - Retinopexy probe
- OR microscope adapters
  - Zeiss type
  - Leica type

©2015 Quantel Medical, Supra 810, SubLiminal® and SubCyclo® are trademarks of Quantel Medical. All rights reserved.