

vitra810 for SubCyclo®



SUBLIMINAL®
CYCLOPHOTOCOAGULATION



 LUMIBIRD®
MEDICAL

Glaucoma Treatment

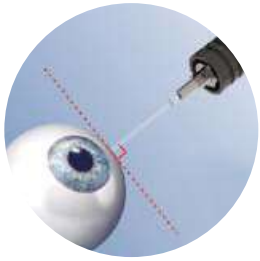
vitra⁸¹⁰ for SubCyclo[®]

● SubLiminal[®] Cyclophotocoagulation

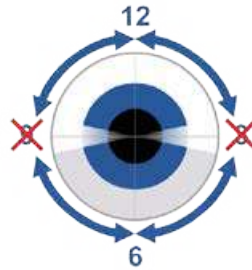
SubCyclo[®] is a new nondestructive laser procedure for the treatment of glaucoma.

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 Vitra[™] 810 laser and the Quantel Medical SubCyclo[®] probe.



Tip of the probe in contact with the sclera and positioned over the identified treatment area. Probe perpendicular to the eyeball.



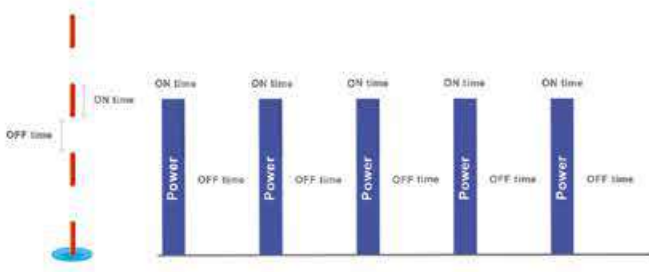
Laser treatment is delivered by moving the tip of the probe in a continuous sliding motion:

- Superior quadrants:
From 9:30 to 12:00 and from 12:00 to 2:30

- Inferior quadrants:
From 3:30 to 6:00 and from 6:00 to 8:30

The 3 and 9 o'clock meridians must be avoided.

● Vitra[™] 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.

● 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 the transillumination technique.⁽¹⁾

The tip of the needle also features a glass sphere ensuring an easy and comfortable sweeping motion.

Image courtesy of Dr. Pascale Hamard



Glaucoma Treatment

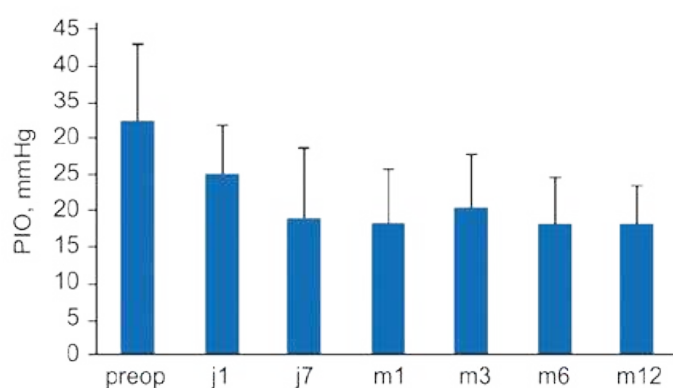
● SubCyclo® Clinical Data

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^(2,3)

An efficient treatment procedure leading to a reduction in the medication regimen^(2,4)

Significant and persistent reduction in IOP at 12 months⁽²⁾



Mean number of medication⁽²⁾

- Before treatment: **3.4 ± 1.7**
- After treatment: **2.9 ± 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

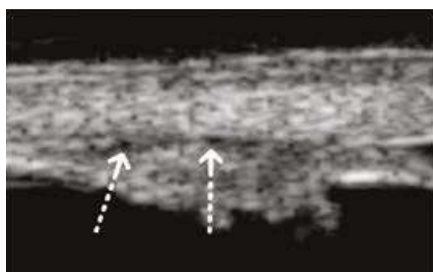


Image courtesy of Dr. Nassima Benhatchi

After treatment:

- No anatomical damage or visible lesion have been observed by UBM⁽²⁾
- UBM shows a thin space between sclera and ciliary body which may correspond to the presence of suprachoroidal fluid⁽²⁾

SubCyclo® avoids the side effects of the thermal cyclophotocoagulation procedure

No serious side effects such as intraocular inflammation after treatment⁽²⁾

No severe complications such as phthisis bulbi, persistent hypotony, or cystoid macular edema⁽²⁾

A repeatable treatment^(2,4)

A safe treatment potentially allowing for earlier laser interventions

● Vitra™ 810: A versatile laser

One single laser probe: Two glaucoma treatments

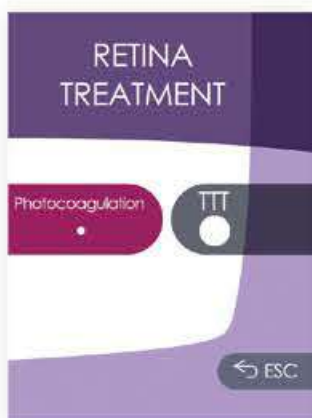
Quantel Medical SubCyclo® laser probe is uniquely designed with a removable footplate allowing implementing both SubLiminal® and thermal treatment procedures.



One laser: Two clinical applications

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

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





vitra⁸¹⁰ for SubCyclo[®]

TECHNICAL SPECIFICATIONS

VITRA 810 nm	
Laser Source:	Laser diode technology
Wavelength:	810 nm
Power at tissue up to:	3W
Pulse duration:	0.01 s to continuous
Aiming beam:	635 - 650 nm
Repeat interval:	0.1 - 0.2 - 0.3 - 0.5 - 0.7 s
Emission modes:	Single, repeat, continuous, painting SubLiminal Mode (duty cycle from 5% to 35%)
Size:	18 (H) x 19.5 (W) x 30 (D) cm 7.1" (H) x 7.7"(W) x 11.8"(D)
Weight:	5.6 kg - 12.3 lbs
Cooling:	by Peltier effect
Power requirements:	100 to 240 VAC, 250 VA, 50/60 Hz

DELIVERY SYSTEMS	
Slit lamp adapters	
- Photocoagulation (Spot size: 100-1000 µm)	
- Transpupillary Thermotherapy - TTT (Spot size: 1000-4000 µm)	
Slit lamp compatibility:	Quantel Medical slit lamp, Haag Streit 900 BM & BQ and CSO SL 9800.
Laser indirect ophthalmoscope	
Keeler Vantage Plus (external laser adaptor)	
Laser probes	
Straight 20, 23, 25 G	
Curved 20 G	
Flexible curved 23, 25 G	
Steerable 23, 25 G	
SubCyclo probe	
OR microscope adapters	
Zeiss type	
Leica type	

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- 3- Keilani C, Benhatchi N, Bensmail D, Abitbol O, Amara A, Bluwol E, Graber M, Lachkar Y. Comparative effectiveness and tolerance of subliminal subthreshold transscleral cyclophotocoagulation with a duty factor of 25% versus 31.3% for advanced glaucoma. J Glaucoma. 2020 Feb;29(2):97-103.
- 4- Lutic I, Dagne C, Filip M, Filip A, Nicolae M, Moiescu R, Ungureanu I, Triantafyllidis G, Antonescu C. Subcyclo laser procedure results in patients with glaucoma. Rom J Ophthalmol. 2018 Oct-Dec;62(4):296-299.



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