

NEW PRODUCT APPLICATIONS

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Laser Provides Spot-On Precision

Yellow wavelength and multiple treatment modes increase patient safety and improve outcomes.

Quantel Medical's Easyret fully integrated 577 nm yellow photocoagulator, with Quantel's proprietary ELBA fiber laser technology, provides a novel way to treat certain forms of macular edema and peripheral retinal pathologies. The laser cavity delivers pure 577 nm yellow wavelength in a uniform top-hat laser spot profile, providing the best laser spot homogeneity profile ever reached with a retinal laser, says Julien Tixier, laser product manager, Quantel Medical.

RANGE OF TREATMENT SETTINGS

Available with Haag Streit or Zeiss type slit lamps, the Easyret offers a wide range of treatment settings. In addition to the SingleSpot treatment mode, surgeons can use the MultiSpot mode for a pattern of simultaneous targets or the SubLiminal mode, which allows surgeons to customize a train of short pulses to precisely manage the thermal effect on targeted tissues.

MultiSpot mode, which uses short pulse durations from 10 ms to 20 ms,

is dedicated to peripheral treatments and has many advantages over conventional treatments. These include less heat diffusion to the retina and choroid, less damage to the retinal nerve fiber layer, a more comfortable treatment for patients, and expedited treatment times. The MultiSpot treatment mode can be delivered through 5 customizable patterns: single spot, squares, circles, triple arcs, and macular grid.

The SubLiminal treatment mode, dedicated to macular treatments, is composed of a train of extremely short microsecond pulses. This subthreshold treatment mode, which has nonvisible laser impacts, is a tissue-sparing treatment mode that avoids scarring while treating diabetic macular edema and central serous chorioretinopathy. It can be delivered through 3 customizable patterns: single spot, squares, and customizable macular grid.

Lihteh Wu, MD, from Macula Associates, Vitreo and Retina of Costa Rica in San Jose, Costa Rica, who uses the Easyret, says that the laser can be used as an alternative to conventional photocoagulation for peripheral and macular treatments.

"In MultiSpot mode, the Easyret decreases treatment times in peripheral treatments. When doing panretinal photocoagulation (PRP) for example, you can complete treatment in 5 minutes compared to 15 to 20 minutes with conventional photocoagulation," Dr. Wu says.



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In SubLiminal mode, surgeons can stimulate retinal tissue to release biological factors to achieve the desired outcome rather than using high energy pulses that can burn retinal tissue and impair patients' vision.

In both treatment modes, the "resume" function enables users to stop treatment if necessary, and then resume treatment where they left off, Dr. Wu says.

WHY IT'S USER FRIENDLY

Quantel engineers worked closely with surgeons to ensure optimal ergonomics and ease of use. The Easyret is integrated into a slip lamp's delivery system. "Everything is controlled via a touchscreen," Dr. Wu says. "No bulky box or cables are needed. It is aesthetically pleasing and saves space."

Easyret's software is intuitive and versatile because it features MultiSpot and SubLiminal guided procedures — simplifying the use of the laser and

laser treatment implementation.

BENEFITS TO PATIENTS

Dr. Wu notes that of all the laser wavelengths available, yellow is the safest one to use when treating the macula due to the sensitive pigments there, and using yellow wavelength laser results in better patient outcomes.

In addition, yellow wavelengths penetrate cataracts better than the conventional 532 nm green wavelength, which isn't as safe and can cause iatrogenic damage, Dr. Wu says.

For patients, MultiSpot procedures are more comfortable because treatment times are shorter. "In busy hospitals with many diabetic patients who need PRP, we can reduce wait times for appointments by treating patients faster," Dr. Wu says.

In addition, patients' pain level is reduced with the Easyret because lasers burn tissue. "If you burn a nerve

in the retina, the patient will experience pain," Dr. Wu says.

The Easyret can also improve patient outcomes in other ways. For instance, in chronic central serous chorioretinopathy, pathology is often close to the fovea. "You can't use a conventional laser in the fovea because you could burn the fovea, causing iatrogenic damage," Dr. Wu says. "But by using the SubLiminal mode, I can treat very close to the fovea without causing any side effects."

In addition, the Easyret can be used as an alternative treatment to photodynamic therapy for central serous chorioretinopathy treatment. "A few years ago in Latin America, where I am based, the only Visudyne drug manufacturer stopped selling it here, so we could no longer offer photodynamic laser therapy," Dr. Wu says. "Thanks to the Easyret's SubLiminal mode, we can now treat these patients and save their vision." **RP**