

FriendlyLight's MicroPulse Nd:YAG Reduces Pain in Hair and PFB Removal

By Bob Kronemyer, Associate Editor

A unique 1064 nm laser that allows for effective removal of hair and treatment of PFB (pseudofolliculitis barbae) with little or no pain has been developed by FriendlyLight Laser Corporation (Tarrytown, N.Y.). A proprietary MicroPulse technology minimizes the heating of epidermal melanin while delivering the necessary laser energy into the hair follicles for high treatment efficacy.

The efficient and safe destruction of hair follicles requires that the duration of laser energy delivered to the hair follicle be less than the time necessary for the natural energy dissipation process. With this principle in mind, laser scientists at FriendlyLight designed an Nd:YAG laser with a pulse duration of 650 microseconds (shorter than the thermal relaxation time of the human hair follicle), which is approximately 1 ms. Hence, overheating of the skin is avoided. However, this pulse duration is still long enough to allow laser energy to travel deep into the skin tissue and to damage or destroy the follicle.

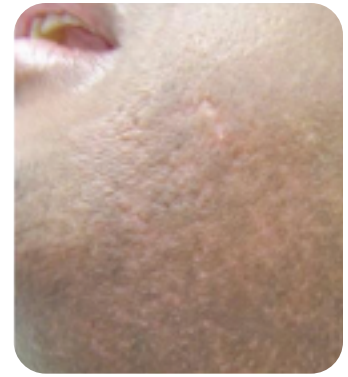
As a result, the FriendlyLight Nd:YAG laser delivers very strong efficacy. Only four to six treatments are necessary to achieve profound hair reduction. As part of the protocol visible charring of exposed stubs of hair ensures proper fluence settings and provides the patient a visual indicator of the laser's effect.

"PFB represents a serious problem for many of my patients," said Arthur Sumrall, M.D., a dermatologist at the Longevity Institute of Indiana in Indianapolis. "This led me to evaluate nearly all technologies available in the market. After a thorough evaluation, the best choice proved to be the FriendlyLight 1064 nm Nd:YAG laser with its unique MicroPulse technology. This laser delivers high treatment efficiency coupled with very low patient discomfort. The majority of my patients easily tolerate fluences of up to 30 J/cm² without any anesthetic. And many patients show visible improvement after a single session."

In Dr. Sumrall's clinical evaluation of MicroPulse technology, patients underwent two to five treatment sessions, spaced 21 to 28 days apart. Patients were fol-



Before Tx



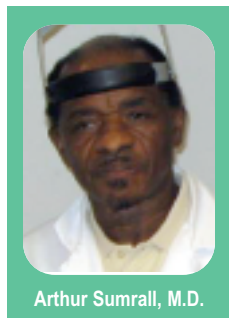
Four months after MicroPulse technology Tx

lowed for five months. "Overall, patients are ecstatic with the results and are astonished by the absence of treatment pain," he said.

In comparison to very long pulse devices, the FriendlyLight laser's shorter pulse width reduces the time during which the epidermal melanin is heated, resulting in less pain and a reduced risk of burning the surface skin (which can also cause hyperpigmentation). The laser is particularly effective in minimizing overheating of high melanin skin (Fitzpatrick types IV – VI). Furthermore, because 1064 nm laser energy is also absorbed by hemoglobin, the laser affects blood capillaries that feed the hair follicles; this facilitates treatment efficacy with light colored hair.

"It is great to see this level of innovation within a long established modality," said Michael Gold, M.D., a dermatologist and founder of Gold Skin Care Center in Nashville, Tenn. "The FriendlyLight laser provides an effective balance of treatment efficacy with low patient discomfort. I also like the uniquely compact and portable LightPod configuration."

Because the laser has a 1064 nm wavelength which is absorbed by both melanin and hemoglobin, physicians have the versatility to perform other traditional Nd:YAG procedures, including skin tightening, non-ablative skin rejuvenation and telangiectasia removal. ■



Arthur Sumrall, M.D.



Michael H. Gold, M.D.