

Ellipse Gains Approval for PDT Treatments



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Acne before Tx



Acne after Ellipse PDT Tx

Photos courtesy of Ellipse

By Ilya Petrou, M.D., Contributing Editor

Ellipse A/S (Hørsholm, Denmark), a pioneer in intense pulsed light (IPL) design, has gained EC approval as a source for dermatological light exposure in connection with Photodynamic Therapy (PDT), opening the door for more effective treatment of acne vulgaris and sun damaged skin.

Two different applicators, the existing PR+ (535 – 750 nm) and the new PL+ (400 – 720 nm) handpieces, can be used in connection with the various photosensitizers that convert to Protoporphyrin IX (PpIX) in the skin. The PR+ applicator meets three of the five absorption peaks of PpIX, while the PL+ applicator covers PpIX's 407 nm and 510 nm absorption peaks.

As Peter Bjerring, M.D., Ph.D., professor of dermatology and medical director at the Molholm Hospital in Vejle, Denmark noted, "The fact that all the light energy is contained in a waveband that closely matches the absorption spectrum of PpIX enables me to treat effectively, while using only a fraction of the energy required with other IPL systems. Patients benefit from a faster treatment, via fewer passes of light."

PDT in aesthetic technology has been known for some time, but Ellipse's PDT-enhanced photorejuvenation allows a light skinned patient (skin types I-III) treated with the PR+ applicator to not only obtain satisfactory treatment of sun damaged skin, including environmentally-induced dyschromias and diffuse erythema, but to also benefit from statistically significant improvement in perioral and periorbital wrinkles, and skin texture. Patients with darker skin types (e.g. type IV) achieve almost the same improvement in wrinkles, using a long pulse, low fluence energy with the PL+ applicator.

"I often use these handpieces for photorejuvenation and find them to be

very effective in the treatment of dyschromias, fine lines and wrinkles," Dr. Bjerring advised. "While dyschromias may only require a single treatment, I treat wrinkles once a month for a total of three sessions."

PDT-enhanced treatment of non-cystic acne vulgaris provides significant results, as the naturally occurring PpIX produced by most *P. acnes* bacteria is supplemented by the photosensitizer. Three separate studies utilizing different sources of PpIX all demonstrated high clearance results, ranging from 63% to 89%.

Depending on the severity of acne, a typical protocol may consist of three treatments spaced one week apart. Similar to pharmacologic acne therapy, Dr. Bjerring said that patients should expect an improvement in lesions approximately two to four weeks after initiation of treatment. While longer standing acne lesions will not disappear with this treatment, Dr. Bjerring advised that it will prevent new lesions from occurring, emphasizing the proactive therapeutic benefit of this approach.

"My own research has shown that even comparatively low quantities of photosensitizer have a dramatic impact, as long as the incubation time is sufficient enough to allow passage through the stratum corneum," Dr. Bjerring reported. "This means the application time for Asian patients has to be increased beyond the norm for Caucasian patients."

Nevertheless, for all patients, treatment offers a simple and effective alternative to prescription medicine, which can be particularly useful for those who find it difficult to comply with prescribed therapies. Furthermore, the side effects are normally confined to short-term erythema lasting less than one hour.