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ENHANCE YOUR DRY EYE PRACTICE WITH IPL



Insights from the authors' first year of experience.

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Intense pulsed light (IPL) has been in use in dermatology for many years. More recently, this technology has been developed for eye care as a treatment for dry eye disease (DED), ocular rosacea, and meibomian gland dysfunction (MGD). As the number of patients who experience DED and MGD continues to rise,^{1,3} offering them the latest treatment options can differentiate your practice from others in your area and help your practice keep pace with the standard of care. This article shares some advice on adopting IPL and building your dry eye practice, based on our first year of experience with this technology.

INCORPORATING IPL INTO YOUR PRACTICE

Once you have purchased an IPL device, you and your staff will need to

be trained on its use. Training is usually provided by the company from which you purchased the device.

Once everyone is comfortable with the technology and the procedure, it is important to learn how to identify candidates for IPL treatment. Look for patients who are still struggling with DED despite trying initial therapies

such as artificial tears, warm compresses, and lid hygiene. The Tear Film & Ocular Surface Society Dry Eye Workshop II (TFOS DEWS II) report categorizes IPL as a second line of treatment.^{1,4}

IPL works best for patients with facial and ocular rosacea. Inspect the patient for inflammation, erythema, and

AT A GLANCE

- ▶ Intense pulsed light (IPL) therapy is a treatment option for many patients with ocular rosacea, dry eye disease, and meibomian gland dysfunction.
- ▶ The authors share advice on incorporating IPL into your offerings and building your dry eye practice based on their first year of experience with IPL.



Photos courtesy of Dr. Rolando Toyos, MD, and Lumentis.



Figure 1. Lid margin before (A) and after (B) IPL treatment. Treatment improves redness, vascularization of the lid margins, and meibomian inspissation.

increased vascularization of the face and at the eyelid margins. Increased inflammation and vascularization are signs of ocular rosacea, and they can also worsen MGD and DED. IPL can reduce this inflammation and alleviate DED symptoms in a number of ways.⁵⁻⁷

If possible, take external photographs of patients' eyelids to show them their increased vascularization. This is an opportunity to educate these patients about their eye conditions and about how IPL can help. The photographs also allow you to document and demonstrate progress as they undergo treatment (Figure 1).

Carefully evaluate the skin type of patients with ocular rosacea using the Fitzpatrick skin classification (Table) to determine their candidacy for IPL and the proper treatment settings. We treat only patients with a skin type of IV or lower.

After determining skin type, we treat a test spot during the DED evaluation and follow up with a phone call the next day to assess the skin's reaction. If the patient has a negative response, such as a burn, discoloration, or bruising, this may indicate that the patient is a poor candidate for IPL treatment. So far, only one of our

patients has experienced a negative reaction to the test spot.

During the consultation, we also evaluate patients for possible contraindications and review all medications they are currently taking. Contraindications and precautions to be considered include medications that may cause photosensitivity, excessive melasma, active herpes simplex, uncontrolled systemic diseases, hormonal disorders, and prior skin augmentation, such as collagen fillers and Botox (these should be avoided 2 weeks prior to and after treatment). Blood thinners or blood thinning agents should also be avoided prior to treatment to decrease risk of bruising. Areas with tattoos, including eyeliner, should also be avoided.

If the patient experiences no adverse reactions and has no contraindications, we proceed with informed consent and schedule a first IPL session. The patient then receives pre- and posttreatment instructions.

BEST PRACTICES

We ask all IPL patients to undergo a minimum of four sessions, with each session spaced 3 to 4 weeks apart. We advise patients to avoid direct sunlight and to forgo sunbathing, including tanning booths, self-tanning creams, and spray tans. We also instruct patients to use sunscreen daily with a minimum SPF of 30. We ask them to discontinue all photosensitive medications before starting treatment but to continue their current DED treatment regimens.

When patients arrive for a treatment session, they are asked to wash their faces fully and remove makeup and lotion. Photographs of patients are taken before treatment at every visit to monitor progress.

A clear ultrasound gel is applied to the entire treatment area, and laser-grade eye protection (goggles, IPL-specific eye covers, or laser-grade corneal shields) are applied to the patient's eyes. Eye protection is also required for the practitioner and anyone else who will be in the room.



TABLE. Fitzpatrick Skin Type Classification

SKIN TYPE	COMMON FEATURES	REACTION TO UV*
I	Very fair/blue eyes/freckles	Always burns, never tans
II	Fair/blue, hazel, or green eyes	Always or usually burns, tans with difficulty, tan fades rapidly
III	Cream white/fair with any eye or hair color; very common	Sometimes mild burn, always or usually tans, tan stays for weeks
IV	Brown/typical Mediterranean skin/moderately pigmented; may include Asian, Middle Eastern, Indian, Hispanic lineages	Rarely burns, tans with ease, tan stays for months
V	Darker brown/darker skin type; may include Asian, Middle Eastern, Indian, Hispanic, Mediterranean (nonwhite) lineages	Very rarely burns, tans very easily
VI	Darkest brown, black (nonwhite)	Never burns, tans very easily

*To initial unprotected exposure of 45 to 60 minutes of noon exposure. Adapted from Fitzpatrick TB. The validity and practicality of sun-reactive skin types I through VI. *Arch Dermatol.* 1988;124(6):869-871.



Figure 2. Decrease in redness around the eye of a patient with ocular rosacea before (A) and after (B) three IPL treatments.

Treatment is individualized based on skin type. We use the M22 (Lumenis) for IPL. All settings are preset on the machine based on the patient's skin type and the type of treatment

desired. Our ocular rosacea treatment protocol is a modified version of the IPL protocol for DED developed by Laura Periman, MD. Each patient is also treated with the preset settings for

DED that were determined by Rolando Toyos, MD, who developed the use of IPL for this therapeutic indication. We have found that patients benefit when both settings are used during each of the four sessions.

After the treatment and before leaving the office, patients are asked to wash the treatment area with a gentle cleanser and apply SPF 30 sunscreen. Based on the patient's needs, warm compresses may be applied to the lids and manual expression of the meibomian glands may be performed immediately after IPL treatment. We call patients 1 day after IPL treatment to ask how their skin responded and if they have noticed adverse effects.

At each session, before treatment, patients are asked to describe how their eyes feel and their current DED treatment regimen. Most of our patients do not notice changes in their DED until after a third session, but facial rosacea symptoms (Figure 2) can improve after the first session.

We ask patients to return to the office for a DED evaluation 6 months after their last treatment session. We may offer a touchup treatment 6 to 12 months after IPL treatment has

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ended to help manage the disease and limit its symptoms.

A VALUABLE TOOL

We have been using IPL to treat patients who have ocular rosacea and DED for more than a year, and we have been impressed with our results thus far. Patients' DED symptoms have greatly improved, and many have been able to reduce their use of products such as artificial tears and prescription medications. Patients have also been thrilled with the cosmetic benefits of IPL treatment: Their skin has less erythema and fewer telangiectasias, and their lid margins are no longer red and swollen. In our experience, these improvements motivate patients to continue

treatment because they understand that the results are cumulative.

Offering IPL treatment can differentiate your practice from others in your area and expand your patient base and offerings. This form of therapy is an excellent option for many patients with ocular rosacea, DED, and MGD, and its applications are expanding. Initial studies conducted by Dr. Periman suggest that IPL can also be helpful in the treatment of chalazion and *Demodex*.^{2,8,9} ■

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