The explosion of interest in chemical peeling and laser resurfacing on the part of dermatologists has paralleled the general public's interest in acquiring a youthful appearance.

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With so many new peel preparations emerging onto the market today, it is important for the dermatologist to learn about the new products and the best way is by referring to the medical literature rather than the advertising or marketing campaign common among market-driven cosmetic products.

Since all peeling agents – superficial, medium-depth and deep – are derived from basic chemicals known to cause exfoliation, destruction and/or inflammation of skin in a controlled manner, the clinician must ask what is new and better about the product. Peeling agents, regardless of their proprietary new name, fall into chemical families. The clinical evaluation of these generic agents is well documented in our literature as to efficacy, technical care and safety.

It is the responsibility of the dermatological surgeon to be in control of their chemicals and products. Therefore, it is necessary to understand all the products and the peel formulation, and be sure it has undergone the test of objective scientific study with clear clinical evaluations and histology. Only then will we truly know the effectiveness of the agents we are using for exfoliating and resurfacing.

The explosion of interest in chemical peeling and laser resurfacing on the part of dermatologists has paralleled the general public's interest in acquiring a youthful appearance by rehabilitating the photoaged skin. Advertising has further heightened the public's interest for cosmetic agents, over-the-counter chemicals and treatment programs that have entered the general market of products meant to rejuvenate skin and erase the marks of sun damage and age. Patients have tried most of these over-the-counter home do-it-yourself programs and, by the time they consult their dermatologist, they are ready for a more definitive procedure performed with either chemical peeling or laser resurfacing. The patient would first request nonablative procedures with a laser such as intense pulsed light (IPL), radiofrequency skin tightening or YAG laser procedures with no downtime. If results are not adequate, the physician can suggest ablative procedures: light- or medium-depth peeling. It is the obligation of the physician to analyze the patient's skin type and the degree of photoaging skin and, thus, prescribe the correct facial rejuvenation procedure. This should be the procedure or combination of procedures that will give the greatest benefit with fewer risk factors and morbidity.

Chemical peeling has been the tried and true basic procedure. A renewed interest in realistic results has sparked new interest in chemical peels, especially the medium-depth peel.

Chemical peeling involves the application of a chemical exfoliant to wound the epidermis and dermis, and thus, remove superficial lesions and improve the texture of skin. Various acidic and basic chemical agents are used to produce the varying effects of light to medium to deep chemical peels through differences in their ability to destroy skin. The level of penetration, destruction and inflammation determines the level of peeling[1]. The stimulation of epidermal growth through the removal of the stratum corneum without necrosis is a light superficial peel. Through exfoliation, it thickens the epidermis with qualitative regenerative changes. Destruction of the epidermis defines a full superficial chemical peel, which induces the regeneration of the epidermis. Further destruction of the epidermis and induction of inflammation within the papillary dermis constitutes a medium-depth peel. Then, further inflammatory response in the deep reticular dermis induces new collagen production and ground substances, which constitutes a deep chemical peel. These have now been.

Category I, or minimal degree photodamage, can be treated. The Glogau system classifies severity of photodamage, taking into account the degree of epidermal and dermal degenerative changes in color.

The physician must inform the patient of possible risks related to photosensitivity, especially if the skin type is III–VI. It must be justified whether the benefits of the procedure outweigh these risks and, in addition, the physician must take into account the degree of epidermal and dermal degenerative changes in color.

Analyzing the patient with photoaging skin must take into account the degree of epidermal and dermal degenerative changes in color.

Medium-depth chemical peeling is defined as controlling damage, in strengths of 50% or higher, it has fallen out of favor as a single-agent chemical peel. It is for this reason that the combination products, along with a 35% TCA formula, have been found to be equally effective in producing this level of controlled damage with fewer complications, especially scar formation, actinic changes and preneoplasia. However, since TCA itself is an agent more likely to be fraught with complications, especially scarring, pigmentary changes, and herpetic activation. These patients can be identified in the preoperative consultation and placed on appropriate therapy at the time of the chemical peel.

Indications & patient selection

The physician must inform the patient of all potential complications, including significant color change in these cosmetic units from the rest of the face. The physician must take into account the degree of epidermal and dermal degenerative changes in color.

The benchmark for this level peel was 50% TCA. It has traditionally been achieved acceptable results in ameliorating fine wrinkles, providing peak results. Therefore, a careful evaluation of peeling solutions to obtain therapeutic results. Therefore, a careful evaluation of peeling solutions to obtain therapeutic results.

Patients with extensive photodamage from chemical peels, owing to poor barrier function or exaggerated inflammatory reactions, produce side effects and complications. Patients with greater degree than others, while particular skin types withstand the damage to a greater degree than others, while particular skin types have a barrier function against noxious chemicals and some skin disorders have a greater tendency to produce side effects and complications. Therefore, patients with extensive photodamage from chemical peels would need deep peeling treatments. Categories II and III would entail medium-depth chemical peeling, while category IV would need deep peeling treatment. Categories II and III would need deep peeling treatment.

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Figure 1. Depth of chemical peel.

A light peel (superficial) stimulates epidermal growth. A medium peel results in epidermal and papillary dermal renewal. A deep peel results in epidermal and dermal wound healing. A deep peel results in epidermal and dermal wound healing.

The Glogau system classifies severity of photodamage, taking into account the degree of epidermal and dermal degenerative changes in color.

Pigmentary risks are generally not a great problem with very superficial chemical peeling, but may become a significant problem with medium and deep chemical peeling. It can also be a significant risk when regional areas, such as the lips and eyelids, are deep peeled, creating a significant color change in these cosmetic units from the rest of the face.

The definitive medium-depth resurfacing procedure has been, and remains, chemical peeling in the face of newer laser procedures. The definitive medium-depth resurfacing procedure has been, and remains, chemical peeling in the face of newer laser procedures.
Brody first developed the use of solid CO$_2$ applied with acetone to the skin as a freezing technique prior to the application of 35% TCA. The preliminary freezing appears to break the epidermal barrier for a more even and complete penetration of the 35% TCA [5].

Monheit then demonstrated the use of Jessner’s solution prior to the application of 35% TCA. Jessner’s solution was found to be effective in destroying the epidermal barrier by breaking up individual epidermal cells. This also enables a deeper penetration of the 35% TCA and a more even application of the peeling solution [6]. Similarly, Coleman demonstrated the use of 70% glycolic acid prior to the application of 35% TCA. Its effect was very similar to that of Jessner’s solution.

All three combinations have proven to be as effective as the use of 50% TCA, but with a greater safety margin. The application of acid and resultant frosting are better controlled with the combination, and thus, the hot spots with higher concentrations of TCA can be controlled, creating an even peel with fewer incidences of dyschromias and scarring. The combination peel produces an even, uniform peel. The Monheit version of Jessner’s solution (35% TCA peel) is a relatively simple and safe combination (FIGURE 3). The technique is used for mild-to-moderate photoaging, including pigmentary changes, lentigines, epidermal growths, dyschromias and rhytids. It is a single procedure with a healing time of 7–10 days. It is also useful to remove diffuse actinic keratoses as an alternative to chemical exfoliation with topical 5-fluorouracil chemotherapy. Topical chemotherapy is applied for 3 weeks, creating erythema, scabs and crusts for up to 6 weeks. The combination peel will produce similar therapeutic benefits within 10 days of healing. Therefore, it reduces the morbidity significantly and gives the cosmetic benefits of improved photoaging skin.

The procedure is usually performed with mild preoperative sedation and nonsteroidal anti-inflammatory agents. The patient is told that the peeling agent will sting and burn temporarily, and aspirin is given before the peel and continued through the first 24 h if the patient can tolerate the medication. Its inflammatory effect is especially helpful in reducing swelling and relieving pain. If aspirin is given before surgery, it may be all the patient requires during the postoperative phase.

Vigorous cleaning and degreasing is necessary for even penetration of the solution. The face is scrubbed gently with Ingasam (Septisol®, Vestal Laboratories) and next, an acetone preparation is applied to remove residual oils and debris. After thorough cleaning, Jessner’s solution is applied with either cotton-tip applicators or 2 × 2 inch gauze. Jessner’s solution is applied evenly with usually one or two coats to achieve a light, but even, frosting. The TCA is painted evenly with one to four cotton-tipped applicators that can be applied over different areas with light or heavier doses of the acid.

The Jessner’s–TCA peel procedure is as follows: Skin should be cleaned thoroughly with septisol to remove oils. Acetone or acetone alcohol is used to further debride oil and scale from the surface of the skin. Jessner’s solution is applied. 35% TCA is applied until a light frost appears. Cool saline compresses are applied to dilute the solution. The peel will heal with 0.25% acetic acid soaks and a mild emollient cream. The white frost from the TCA application appears complete on the treated area within 30 sec to 2 min. Even application should eliminate the need to reapply the TCA a second or third time, but if frosting is incomplete or uneven, the solution should be reapplied. The surge on should wait at least 3–4 min after the application of TCA to ensure the frosting has reached its peak. The completeness of a frosted cosmetic unit can be documented and the area touched-up as required. Areas of poor frosting should be retreated carefully with a thin application of TCA. Over coating TCA will increase its penetration and, thus, Figure 2. Trichloroacetic acid frosting. Protein precipitation can be an indicator of completion of chemical reaction or depth of chemical destruction, and cannot be neutralized.
warm water. A bland emollient is applied to the desquamating acid compress made of 1 tablespoon white vinegar in 1 pint of patient is instructed to soak four-times a day with a 0.25% acetic edema can occur and may close the lids. For the first 24 h, the expected. With periorbital peels and even forehead peels, eyelid solution is applied to other areas.

is applied, but this subsides as frosting is completed. Cool saline with cool saline compresses at the conclusion of the peel.

the lid margin. The solution should then be diluted immediately applicator should be used to carry the solution within 2–3 mm of over the lip skin to the vermilion.

rhytids that require a complete and even application of solution between peeled and nonpeeled areas. The perioral area has Careful feathering of the solution into the hairline and around the herpes simplex virus.

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in its place, the author's practice as it can be individuated for most of the author prefers to use a combination of medium-depth peel. The combined procedures are less aggressive without the significant side effects of hypopigmentation and alabaster texture. However, for severe photoaging, the use of the Baker's peel has lost popu-


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Monheit GD. The Jessner's and TCA peel: A paradigm is to look natural and healthy for your age, rather than for a more natural result than the older, deep peel procedures. The younger population asking for skin rejuvenation wish significant side effects of hypopigmentation and alabaster texture. However, for severe photoaging, the use of the Baker's peel has lost popu-

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