

Dermatology: New and Old

By Amy B. Lewis, MD

Dermatology is an ever-growing and changing field of medicine. It's exciting in its ability to treat the young and old. Over the past five years in dermatology, most of the strides have been in laser technology along with improvements in topical rejuvenation. In the future, additional improvements in these areas, as well as in the treatment of the acne problems in teens and young adults, are expected.

Everybody knows that dermatologists can now erase the signs of worry and time with laser resurfacing and injections. However, patients do not want the downtime anymore. They cannot give up two weeks of their active social calendar to be red and swollen from laser resurfacing. The newer non-ablative lasers, such as Smoothbeam, Cool Touch and N-light, allow the laser beam to go directly through the skin into the collagen fibers. It "wakes" up the collagen and stimulates growth of new collagen beneath the surface of the skin, firming and tightening it. The most common areas of use are around the mouth, around the eyes or on the cheeks of those with textural imperfections. It takes about 15 minutes, has barely any

discomfort and minimal redness occurs after the treatment.

Another lunchtime anti-wrinkle and complexion treatment is the Refinity peel, a high-potency glycolic peel with a patented anti-irritant that is a naturally occurring substance called strontium. After a series of these peels, pigmentation improves, unwanted brown spots will fade, fine lines will become less visible and the complexion will have more luster. It also unclogs the pores and diminishes acne. Again, the 70% peels could leave skin red, scaly and scabby for several days. These newer peels have the novelty of improvement without anyone seeing any redness or evidence of the peel after the procedure.

An even newer procedure that is also performed by many estheticians, under the supervision of a dermatologist, is called dermaplaning, which uses a specialized razor to "shave" the face. The razor is specially made and softened to the edge and will not cut the skin. However, it will microabrade the skin and the pores to eliminate dead skin. It is an excellent means of exfoliation. Because the body is tricked into thinking that it has a minor injury from this procedure, it starts repairing the skin by replacing the environmentally damaged skin with healthy plump cells and re-aligning collagen. For some people who

may be too sensitive for microdermabrasion, the dermaplaning technique may be more tolerable. Most estheticians will combine this dermaplaning technique with a light peel directly after the manual exfoliation to heighten the improvement.

Anti-Aging at Home

Of course, these procedures are done by skin care professionals. There are ways to get involved with the anti-aging regimen at home. In the last several years, Retin-A and retinols, along with glycolic acids, have been used for anti-aging treatment. New on the horizon are antioxidants and natural botanicals, such as vitamin C and green tea formulations. Green tea is an age-old Asian tradition. When ingested, it can ward off internal cancers and increase lifespan. Research suggests that green tea is one of the most potent antioxidants known to mankind. It has both anti-inflammatory and anticancer properties. Though it sounds almost too good to be true, the problem with green tea has been its inability to be stable in cream form and to absorb through the skin.

A new formulation by Topix called Replenix Green Tea has achieved this goal. It is to be applied to the skin twice a day safely around the eyes and to the entire facial area. There are two formulations: the light serum will disappear almost immediately into

the skin and can be topped off easily by any other cream or makeup, while the cream formula has hyaluronic acid, a potent emollient, to keep in the moisture in for those with dry skin.

Tissue Nutrient Solution (TNS) Recovery Complex was developed by Advanced Tissue Sciences, Inc. Human skin possesses certain natural proteins called growth factors that allow the body to regenerate and repair itself. It has been known for a long time that skin, *in utero*, or from the newborn baby, has extraordinary healing ability. Damage from a traumatic event, *in utero*, is usually repaired with no invisible scar. After extensive research, these proteins were isolated and grown from bio-engineered tissue from human skin.

The growth factors stimulate the natural processes that result in new elastic tissue, new collagen formation, new healthy blood vessels, reduced inflammation, more rapid healing, and the reversal of sun damage. These are the same chemicals that are present in newborn skin. The potent concentration of the enriched nutrient solution with human growth factors, soluble collagen, hyaluronic acid, proteins, amino acids and powerful antioxidants are available only through physicians. This complex does not contain any Retinol, alpha hydroxy acids or

beta hydroxy acids and will not increase sun sensitivity.

Another natural cream is Donell Company's CX Correction Cream, which uses the active ingredients of bovine cartilage. Its anti-inflammatory properties are helpful after irritation from a peel or sunburn to soothe the skin. It contains a complex mixture of naturally occurring biologically active substances present in the body's own cartilage.

Donell also has a new product named Cx Rosacea Therapy, which combines both the moisturizing effect of the hyaluronic acid found in cartilage with anti-inflammatory and wound-healing properties to decrease the swelling and stinging of the flare-ups for rosacea patients. Continued use shows that it slows the progress of the disease and improves the quality of skin.

Injectable Collagen

Injectable collagen has been used for many years to plump up deepening lines around the mouth or shrinking lips. Although some people may be allergic to collagen and others will just say collagen doesn't last long enough, not many other options are available for people with these cosmetic concerns. Many more fillers, such as hyaluronic acid-based injectables, are not yet approved by the Food and Drug Administration but are being used in Canada, South

America and Europe and are undergoing trials in the United States. Hyaluronic acid is a molecule that exists in nature and is an excellent moisturizer because it binds water. When injected under the skin, it also binds existing water and holds the filler substance for a much longer period of time. The major building blocks of normal skin include both collagen and hyaluronic acid. As the body ages, it loses collagen and hyaluronic acid. Although it has been tradition to replace collagen in the past, the future will probably see more hyaluronic acid fillers: Hylaform; Perlane, a slightly thicker variation used for the deeper folds around the mouth; and Restylane, which can be layered on top and is a better filler for the lips themselves and the fine lines above the lip.

A new polylactic filler that is only available outside the United States at this time is called New-fill. It may last even longer than the hyaluronic acids, which are reported to last about six to seven months. If that is not long enough, permanent fillers such as Artecoll, a more permanent form of collagen, are available. Although this can cause excellent correction for deep folds and lines, a prior skin test is required because allergies, although less likely than U.S. collagen, have been reported.

Anti-Acne Chic

For teens and young adults who are tired of the usual Clearasil and other acne medicines, some new solutions are on the horizon. Not only is acne now being treaded earlier, it is no longer a stigma to be on an acne wash or an acne medication. Taking care of your skin is chic. With the appearance of blackheads or the occasional pimple, it is time to start. Newer research shows that alpha and beta hydroxy acids in a skin care regimen can give increased improvement over inflammatory acne than benzoyl peroxide. These acids can be found in natural fruit acid washes and less irritating creams—a great option for the younger generation.

For those who cannot tolerate many of the creams or the side effects of the oral medications for acne, a revolutionary new acne treatment was recently approved by the FDA. The Smoothbeam diode laser, which is also used for non-ablative treatment of fine lines and acne scars, has been shown to improve active acne lesions. In patients that were studied, the 98% clearance of back acne lesions after four treatments did not recur for at least six months. For teen and adult acne patients who are dissatisfied with topical and oral regimens because of the risks or side effects, this is an intriguing option. This treatment is very easily tolerated

and can be done in less than 20 minutes on the face or back.

Botox, Botox, Botox

Botox was approved by the FDA for cosmetic use in 2002. Although most of the studies were done for the frown lines between the eyes, Botox is now used for lines of muscle movement including the forehead, the brow, crow's feet and fine lines directly under the eyes. Newer uses include unwanted turkey bands on the neck and drooping mouth corners. If used correctly and in small doses, it can also help the “smoker's lines” that are seen often in both smokers and non-smokers above the lips.

However, the newest trend in Botox is who is using it. It is not just for women anymore. Men are now taking advantage of Botox to rid themselves of deep facial wrinkles. Botox has a safety record of more than 20 years for use in neurological problems and has been used in children for cerebral palsy. It is used in much lower doses in dermatology and it's extremely safe. Botox is something that may make the younger generation think about whether its time to begin preventing the development of deep wrinkles and lines. In this way, it will ensure that the lines never get deep enough to cause unsightly creases on the skin. Botox should be used for relaxation of the muscles, it can help tension headaches abate and can allow

patients to look well rested and feel good about their appearance. It also can be used to decrease excess sweating under the armpits or in the hands.

Forecast

The forecast for 2003 is additional uses of Botox, improvement in laser technology to make them faster, cheaper and more effective without any down time. In addition, anti-aging creams formulated with botanicals and antioxidants and more products from the natural arena will flourish. The fillers with hyaluronic acid or polylactic acid will be stiff competition for collagen in the future after they are FDA-approved, and in a few years, severe acne may become a thing of the past. **PMPR**

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