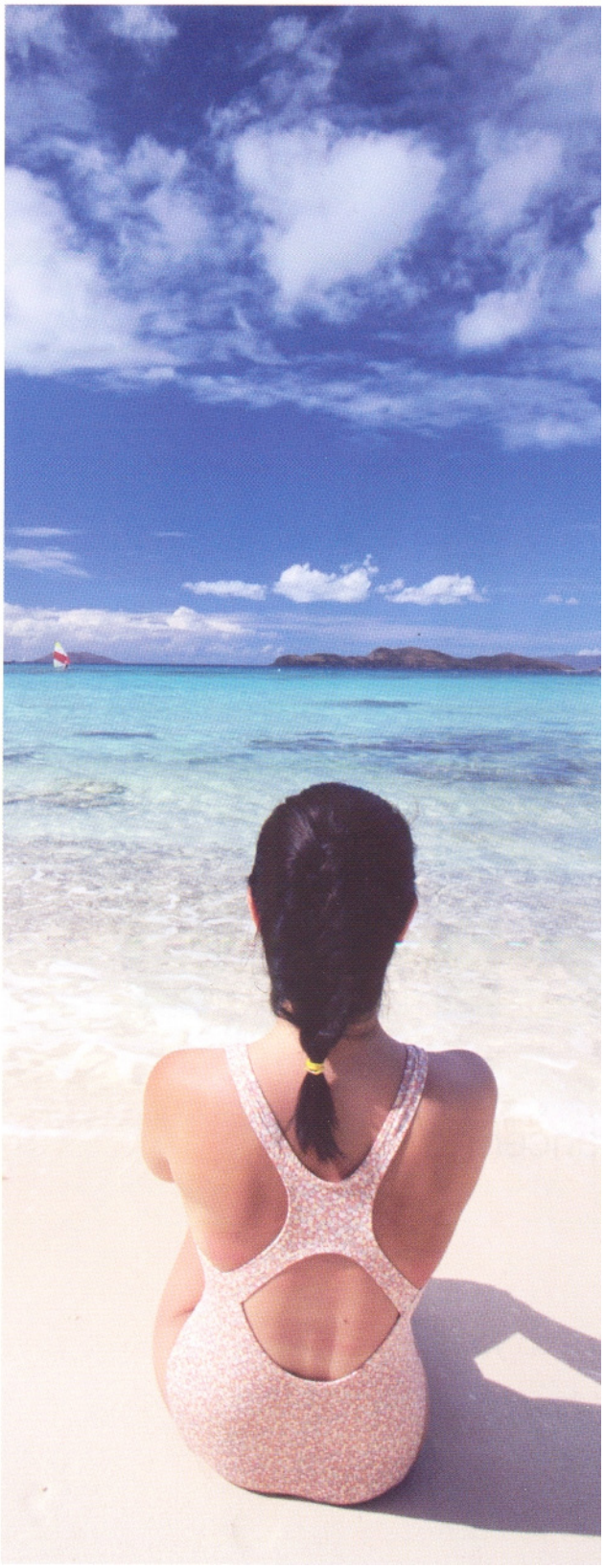
On the Mohs

a surgical method for skin cancer

by David J. Goldberg, M.D.

You're getting ready to apply a cream on your client's face, and as you apply it you notice rough spots on his or her skin They're not pimples, there's a slightly irregular color, and when you ask the client about them, he or she says, "Oh, I've had those for a while." Be suspicious. ►



Excessive exposure to sunlight is the single most important factor associated with the development of skin cancer.

Types of skin cancer

Skin cancer is tissue that grows at an uncontrollable and unpredictable rate. There are three main forms of skin cancer: basal cell carcinoma, squamous cell carcinoma and malignant melanoma. The names refer to the cells of origin of the skin cancer.

The most common types of skin cancer are basal cell carcinoma and squamous cell carcinoma. Both of these types of cancer enlarge locally from their point of origin and usually do not spread (metastasize) to distant parts of the body. If not completely removed, both types will frequently invade and destroy structures in their paths of growth. Compared to other forms of cancer, these types of skin cancer are generally recognized in their early stages and are therefore more easily cured.

Causes

The cause of skin cancer, like other forms of cancer, is still not completely understood. We do know that excessive exposure to sunlight (photo damage) is the single most important factor associated with the development of these skin cancers. These cancers will appear most commonly on the face and the arms (the most sun exposed parts of the body for most people). Fair-skinned people develop skin cancer more frequently than dark skinned people. Skin cancer, unlike cancer of the other organs, is rarely found in dark-skinned people such as African-Americans.

Skin cancer also tends to be hereditary and occurs very frequently in certain ethnic groups, especially those with fair complexions such as Northern Italians and Celtics (especially Irish). Other possible factors contributing to the development of skin cancer include Xrays, trauma and certain chemicals.

How to treat it

Skin cancer begins in the uppermost layer of the skin and grows downward from there, forming roots and spreading horizontally along the surface of the skin. Unfortunately, these extensions of the cancer cannot be directly visualized. Therefore, what is apparent to the naked eye on the surface of the skin actually *may* be only the "tip of the iceberg."

There are several methods of treating skin cancer, all highly successful in the majority of patients. These methods include excision (surgical removal) and suturing (sewing); curettage and electrodesiccation (scraping and burning with an electric needle); cryosurgery (freezing); topical chemotherapy (chemical destruction); and Mohs (microscopically controlled excision). The method of treatment chosen will depend on several important factors, such as the location of the cancer, its size and therapies previously used.

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Mohs

Mohs surgery, named after Dr. Mohs, the physician who originally described this technique, is now a well-established approach.

The originally technique, described more than 60 years ago, involved the application of a chemical on the skin. Subsequently, the procedure was revised and refined, eliminating the need for the chemical fixative and maintaining the microscopically controlled excision. Today, there are two separate steps to the "fresh tissue technique":

1. Surgical removal (or excision) to a certain depth of the tissue
2. Examination under the microscope

Before this tissue is examined, it is marked with colored dyes to distinguish top from bottom and right from left. By doing this, the Mohs surgeon is able to pinpoint the exact location of any remaining tumor during the microscopic examination. If more cancer is found, the procedure is repeated, but only in the area of the remaining cancer.

Total removal of a skin cancer, which *may* involve several surgical sessions of a few hours' duration, is usually completed in one day. After the surgery, a decision is made as to the best way to manage the wound created by the surgery.

With the Mohs surgery technique, the percentage of success is very high, often 97 to 99 percent, even if other forms of treatment have failed. Therefore, with this technique, an excellent chance of cure is achieved; however, no one can guarantee a 100 percent chance of cure. Using microscopic examination, the Mohs surgeon can pinpoint areas involving cancer and selectively remove tissues only from those areas. In this way, the skin cancer is traced out to its roots. This results in the removal of as little normal tissue as possible and the highest chance of cure. Other forms of therapy frequently have only a 50 to 70 percent chance of success in curing skin cancers that have had previous, unsuccessful treatments.

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Free skin screenings

There's no reason your client shouldn't have a yearly skin screening for cancer. Why? Because the American Academy of Dermatology offers a program that provides free screenings for early skin cancers. The AAD's Skin Cancer Screening Program is a public education service designed to promote the prevention and early detection of melanoma and other skin cancers. Since 1985, the program has screened more than 1.4 million people and detected more than 128,500 suspicious lesions, including approximately 15,000 suspected melanomas. Volunteer dermatologists provide free skin cancer screenings in their communities as part of the American Academy of Dermatology's Skin Cancer Screening program, currently in its 20th year. If you or your client would like to take part in the program, simply visit http://www.aad.org/skinscrn.html and sign up. Free skin cancer screenings are scheduled throughout the year and the AAD's location listings are undated weekly.

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How it's done

Generally, a local anesthetic (usually Xylocaine) is used to numb the skin around the skin cancer. After the local anesthetic is given, the surgeon surgically removes a thin layer of skin involved with the cancer. After this tissue has been carefully removed, bleeding may be stopped with a cauterizing machine that generates heat. It usually takes at least an hour to prepare the slides, although sometimes it may take somewhat longer. If examination of the slide(s) reveals that the tissue still contains cancer cells, the procedure will be repeated as soon as possible. Several surgical excisions and microscopic examinations may have to be done in one day, and occasionally it is necessary to have the patient return in subsequent days for additional surgery.

The average number of surgical sessions is two or three, so most patients are finished after several hours.

Once it has been determined that the skin cancer has been completely removed, a decision is made on what to do about the wound created by the surgery. Usually there are three choices:

1. To close the wound with stitches
2. To let the wound heal by itself
3. To cover the wound with a skin graft or flap

If the wound is closed with either sutures, graft or flap, the wound must be kept clean and dry until the next visit. If the wound is allowed to heal by itself (or granulate in), the dressing must be changed every day until the healing is compete.

Prognosis

Studies have shown that if a person develops a skin cancer, there is a possibility that others will develop in the years ahead. I recommend that patients be seen at least once a year for the rest of their lives by a dermatologist so that the physician may determine whether a patient has developed any new skin cancers.

As mentioned earlier, sunlight probably is the main contributing factor in the development of skin cancer. Therefore, it is advisable to liberally apply sunscreen with a sun protection factor of at least 15 to all exposed areas.

It is best to apply the sunscreen about 30 minutes before going outdoors. It should also be reapplied liberally after swimming and exercising since most sunscreens wash off with water or perspiration. In addition to a sunscreen, it is advisable to wear a broad-rimmed hat and utilize clothing to further protect oneself from the sun.

We can all lead a normal lifestyle-as long as we take precautions. Remember, an ounce of prevention is worth a pound of cure. Finally, one who develops skin cancer from excess sun exposure is also likely to excessively wrinkle. If your clients want to look good and avoid skin cancer, tell them not to bake in the sun. For more information about skin cancer, sun damage and treatments of photodamaged skin, go to www.skinandlasers.com. ■

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