Issues related to early detection and prevention of skin cancer are particularly important because more than 1 million Americans will develop this tumor in 1998. At current rates, one in five Americans will develop a skin cancer during his or her lifetime, and the incidence of melanoma continues to rise faster than that of any other cancer.

In theory, skin cancer should be a neoplasm for which opinions about prevention and screening issues do not differ since the cause of most lesions is known (ultraviolet [UV] light exposure, particularly UVB) and the value of early detection and treatment in mortality, quality of life, and economic benefit is well documented. For example, the cost of treating a patient with advanced melanoma is 40 times that of treating one with early disease. Yet, as seemingly straightforward as these issues appear to be, controversy still exists.

Earlier this year, the American College of Preventive Medicine published its policies in both areas and in this issue of CA, Drs. Linda Hill and Rebecca Ferrini summarize those policies. Although the suggestions of the College may be applicable in limited academic settings, the daily environment that clinicians find themselves in probably requires a more practical approach.

**Skin Cancer Screening**

Three criteria must be met for cancer screening to be effective. First, and perhaps most importantly, the early detection resulting from screening intervention should positively affect outcomes. This measure is easily met because the influence of early treatment on survival is probably more evident with skin cancer than with any other tumor. Studies show that most melanomas detected at episodic screenings such as those offered by the American Academy of Dermatology are identified in their early, curable phase.

Secondly, the screening process needs to be straightforward. Because skin cancer is on the body surface, no invasive tools are required, and the process is rapid and simple. Perhaps even more important, the most common opportunity for skin cancer screening occurs when the patient presents for a routine physical examination. When examining the eyes, ears, and nose, the practitioner needs to look at the associated skin (almost half of all skin cancers are on these areas). When listening to the lungs, the practitioner should look at the trunk (the most common site for melanoma in men), and when checking deep tendon reflexes, the practitioner should look at the legs (the most common site for melanoma in women).
Do primary care physicians and allied health care providers currently have the diagnostic skills to be effective in recognizing early skin cancer? Studies suggest that their level may not yet be adequate. For this reason, a concerted educational effort in this area also needs to be undertaken.

Finally, is screening for skin cancer cost-effective? Since the marginal cost of screening using the aforementioned methods is virtually nil, screening for skin cancer certainly meets this criterion.

Whether the screening event is episodic or opportunistic, the key is that it occurs at a time when the patient is potentially receptive to education about skin cancer. Availing ourselves of this “teachable moment” provides a synergism that could pay “incidence” dividends in future years.

**Sun Protection**

Skin cancer is also unique among malignancies in that more than 90% of these neoplasms are caused by UV exposure and susceptibility. Therefore, methods that protect against this exposure should help in reducing skin cancer incidence.

Only in the last decade have significant efforts been made to educate the public about the value of sun protection. Because of the 10- to 20-year latency between UV exposure and clinical appearance of the tumor, it is too early to evaluate how effective these measures have been.

Based upon their review, Ferrini and colleagues find insufficient evidence to recommend for or against the regular use of sunscreen, citing several studies to support that viewpoint. Yet these studies all analyze intervals for sunscreen use before high protection [sun protection factor (SPF) 15+] sunscreens were generally available in the mid-1980s. When the latency issue discussed earlier also is considered, the value of basing conclusions and policies on these studies becomes limited even further.

In addition, most of these studies did not control for skin phenotype. Since fair-skinned individuals are more likely to use sunscreens and more likely to get skin cancer, the cross-correlation of all of these factors further confounds these conclusions.

The protective value of sunscreen use in skin cancer can be best assessed by studies using a more recent time frame and controlling for phenotype. Several of these studies have been performed and show that sunscreen usage has a significant protective effect on melanoma (also J.L. Fisher, PhD; J.A. Schwartzbaum, PhD; R. Siegle, MD, Ohio State University School of Medicine, unpublished data, 1998).

The protective use of sunscreen must be put in an appropriate perspective. Protection from UV exposure also includes covering the skin with clothing and minimizing outdoor activities when the sun’s rays are the strongest. When outdoor activities (such as swimming or skiing) preclude these other measures from being undertaken, the use of sunscreen to block exposure to UV light remains the primary source of protection.

The suggestion by Ferrini et al that evidence does not support the discussion of sunscreen and sun protection with each patient is of particular concern. Given the direct relationship of this behavior to skin cancer prevention, the minimal additional effort required here also is justified.
A Rational Approach

The bottom line remains: what is the best way for the practicing clinician to deal with these issues? Are prevention and detection efforts in this arena worth the “pound of cure”? It is probable that the 1 million Americans who will develop skin cancer this year would think so. However, in this era of cost-effectiveness, a rational approach that could meet almost all of the diverse viewpoints suggested by interested groups is as follows:

• Opportunistic skin cancer screening during examination of patients presenting for other disorders.
• Encouragement of episodic voluntary screenings for skin cancer.
• Education to improve the clinical recognition skills for skin cancer in non-dermatologist physicians and other health care providers.

  • Counseling of patients (especially those at highest risk) to use the triad of behaviors that will make “war” on their skin cancer risk:
    Wear protective clothing
    Avoid the midday sun
    Regular use of sunscreen

As so aptly stated by Dr. Neville Davis of Australia, “Skin cancer writes its message on the skin with its own ink, and it is there for all of us to see. Unfortunately, some see but do not comprehend.”

Until an approach such as this can be implemented, we cannot hope to make a significant impact on morbidity and mortality from this most common of cancers.

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