Melanoma continues to be a poorly understood and frequently under-recognized cancer threat to society. The authors have provided a comprehensive overview of this malignancy from diagnosis to advanced-stage therapy.

While the median age for melanoma at diagnosis is 59 years, the National Cancer Institute's Surveillance Epidemiology and End Results (SEER) database showed an increased incidence of nearly 3% per year during 1985–2003 in those aged 1–19 years in the United States. Inattention to the possibility of melanoma in children has been reported to delay diagnosis as many as 40% of cases.[1,2] Additional research is needed in understanding the biology of childhood melanoma and how it may differ from melanoma seen in adults.

Debate continues over melanoma prevention strategies and risk-promoting behaviors. Still, the majority of those treating melanoma in major cancer centers believe that use of sunscreen by all age groups should be encouraged as well as the avoidance of tanning beds, which are increasingly implicated in the development of melanoma and other skin cancers. Recent data regarding the prevalence of vitamin D deficiency in many adults will continue to make the recommendations for balance between prudent and excessive sun exposure controversial.

The advent of sentinel lymph node mapping in patients with appropriate Breslow depth primary lesions has had a positive impact on patient quality of life by its prevention of unnecessary formal lymph node dissections. This procedure has also led, however, to further questions regarding prognosis when a single node is affected by a minimal number of malignant cells.[3] Treatment of stage III and IV melanoma, and of recurrent melanoma, continues to be a source of frustration for clinicians treating patients with melanoma. As Rubin and Lawrence point out, high-dose interferon (HDI) alfa-2b (Intron A) remains the only approved therapy for melanoma in the adjuvant setting, but its impact on risk of relapse is seen in a limited subgroup of patients. Its clinical benefit is also becoming increasingly debatable as inconsistency in observed overall survival is seen among patients receiving this treatment.

While numerous clinical trials are ongoing in this patient population, high dose interleukin-2 remains the only agent with durable complete responses. The toxicity of this therapy, its availability limited to centers experienced in its use, and the small percentage of patients achieving a benefit from treatment leave clinicians eager for signs of promise from new agents on the horizon.

Rubin and Lawrence provide important information about advances in our understanding of the molecular biology of melanoma in relation to designing new treatment strategies. The paucity of therapeutic options further substantiates the significant role that nurses play in the care of these patients. As advocates on the prevention forefront, helping patients to deal with the psychosocial impact of a melanoma diagnosis and the intricacies of navigating treatment options and side effects of therapy, nurses are critical providers of oncology care for this challenging patient population.

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