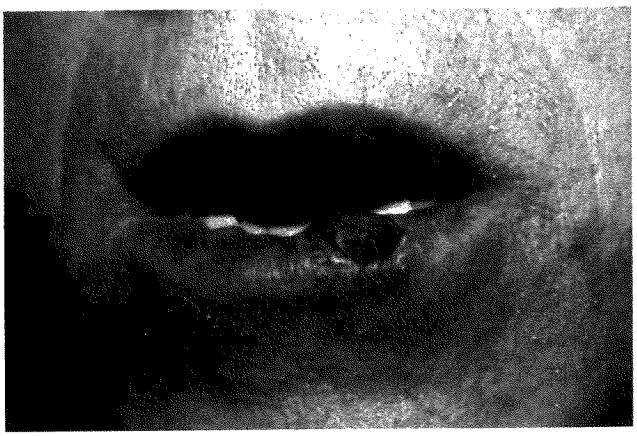

FIGURE 83. Squamous cell carcinoma lesions on the lower lip most commonly arise from sun damage, often in the setting of actinic cheilitis.

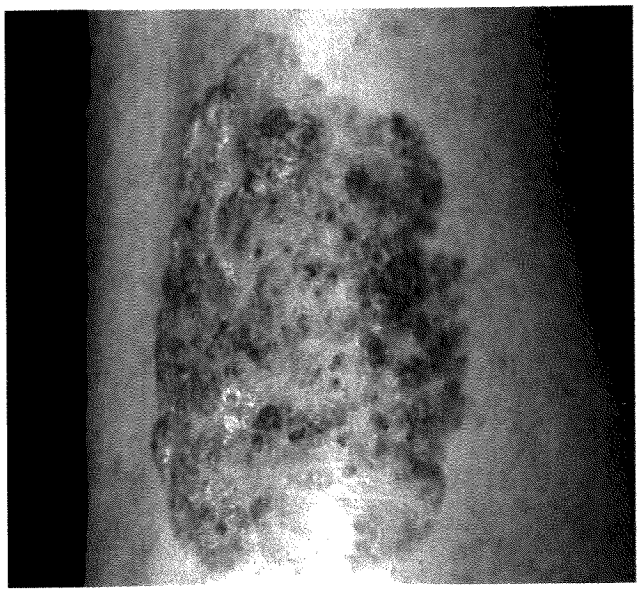

FIGURE 84. Bowen disease (squamous cell carcinoma in situ) typically presents as a gradually enlarging, well-demarcated erythematous plaque with an irregular border and surface crusting or scaling.

Surgical excision including Mohs micrographic surgery for high-risk SCC tends to be the first-line treatment given its potentially aggressive behavior and risk of metastasis. Radiation is an option if surgery is contraindicated. In cases of metastasis, chemotherapy can also be considered.

KEY POINTS

- Squamous cell carcinoma presents as pink, scaly indurated plaque, papules, or nodules that can ulcerate, bleed, or become crusty.
- Surgical excision, including Mohs micrographic surgery, is first-line treatment for squamous cell carcinoma on the head and neck, given its potentially aggressive behavior and risk of metastasis; in cases of metastasis, chemotherapy can also be considered.

Keratoacanthoma

Keratoacanthoma is considered to be a variant of SCC by some and a benign tumor by others. Histologically, it can resemble an SCC. It has a distinct appearance and clinical course. It appears rapidly (within 4 to 6 weeks) as a round pink nodule with a central, keratin-filled crater, giving it a "volcaniform" appearance (**Figure 85**). After its rapid growth, some keratoacanthomas tend to involute in 6 months. Because it is difficult to differentiate from SCC, they are often treated with surgical excision.

Malignant Melanoma

Melanoma is a malignant neoplasm of the melanocytes. Although it is less common than BCC and SCC, it is histologically aggressive and has a much higher rate of metastasis. It is responsible for most skin cancer deaths. In the United States, the incidence of melanoma is increasing faster than any other cancer. The estimated lifetime risk of developing melanoma is 1 in 50. It tends to affect a younger population. There are four clinical subtypes: superficial spreading, lentigo maligna, acral lentiginous, and nodular melanoma. Risk factors include UV light (both chronic and intermittent blistering sunburns), genetics (family history, and *CDKN2A* and *CDK4* gene mutations), large number of nevi, dysplastic nevi, and fair skin.

In general, the ABCDEs of identifying characteristics can help diagnose melanoma where "A" stands for Asymmetry, "B" for irregular Border, "C" for multiple Colors, "D" for Diameter greater than 6 mm, and "E" for Evolution or change over time. Not all melanomas follow all of these characteristics, so if there is a lesion that is different from the patient's other nevi, a biopsy should be considered.

Superficial spreading melanoma is the most common type (**Figure 86**). It can occur anywhere on the body; however, in men, the most common location is the back, whereas in women, it is more often found on the legs.

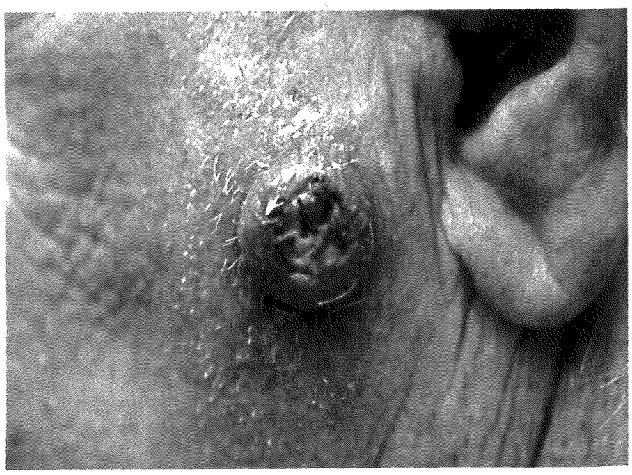

FIGURE 85. Rapidly growing, pink "volcaniform" nodule with central crust that is characteristic of a keratoacanthoma.

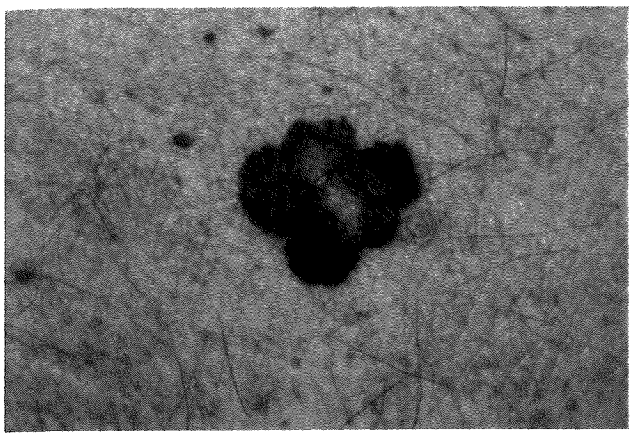

FIGURE 86. A superficial spreading melanoma with prominent Asymmetry, irregular Borders, Color variation, and large size (Diameter)—ABCD.

H CONT.

Lentigo maligna is more often found on the head and neck region. It is associated with frequent chronic UV light exposure. It is usually found in older patients, peaking in the seventh and eighth decades of life. It presents as ill-defined, asymmetric brown or black macules or patches, often reaching a diameter of 5 to 7 cm prior to invasion (**Figure 87**). The change and darkening of the lesion can be very insidious and can be mistaken for a solar lentigo or seborrheic keratoses.

Acral lentiginous melanoma occurs on the palms, soles, and distal fingers and toes. It is an ill-defined, black macule plaque, and it more frequently occurs in patients with darker skin (**Figure 88**). The average time to diagnosis is 2 years. The 5-year survival rate for melanoma in blacks and Hispanics, even after adjusting for age, stage, site, and socioeconomic status, is lower compared with white patients.

Nodular melanoma begins in the vertical growth phase and is more aggressive. It is rapid growing and presents as blue-black, smooth, or eroded nodules occurring anywhere on the body (**Figure 89**).

FIGURE 87. Ill-defined asymmetric brown patch consistent with a lentigo maligna which presents as a slowly enlarging, variegated, pigmented patch on sun-damaged skin.

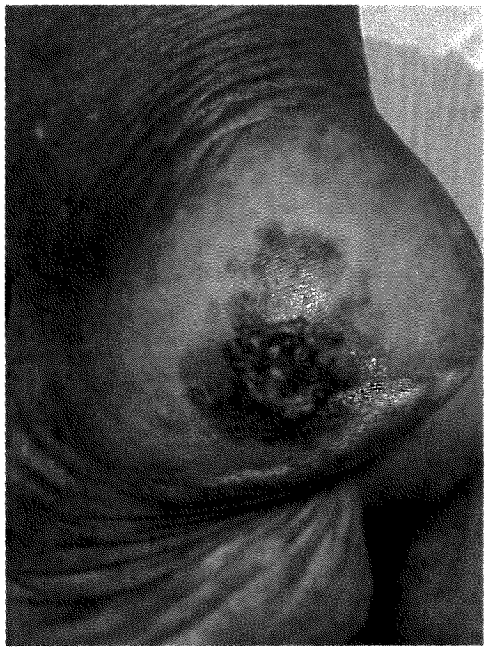

FIGURE 88. Ill-defined, asymmetric black gray ulcerated plaque on the heel typical of acral lentiginous melanoma.

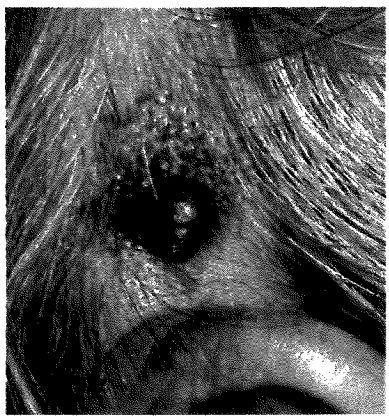

FIGURE 89. Nodular melanomas typically present as uniformly dark blue or black "berry-like" lesions that most commonly originate from normal skin. They can also arise from preexisting nevi, as did this melanoma. Nodular melanomas grow vertically rather than horizontally.

All suspicious pigmented lesions must be biopsied. The preferred method to biopsy a pigmented lesion is an excisional biopsy with 1- to 2-mm margin to obtain the entire lesion and to prevent sampling error. Shave biopsies should be avoided in most pigmented lesions as there is risk of transecting a melanoma and preventing true staging of the lesion. A modified technique that can be helpful is the "scoop" biopsy where the deep dermis or subcutaneous tissue is removed to get underneath the lesion. In wide, ill-defined lesions, it may be prohibitive to remove the entire lesion, so an incisional biopsy is acceptable. Definitive treatment cannot be determined until

CONT. histologic confirmation and final staging of the tumor is completed.

Poor prognostic factors include male gender, increasing age, increased tumor thickness (Breslow depth), ulceration, increased tumor mitotic rate, and head/neck/trunk locations. Melanomas are staged with the tumor, nodal, and metastasis (TNM) system (https://cancerstaging.org/references-tools/quickreferences/Documents/MelanomaLarge.pdf).

Survival is dependent on early diagnosis. Treatment is based on the stage of melanoma. In the first and second stage, surgical treatment is used to remove the lesion and a margin of clinically normal skin (wide local excision). The size of the margin is based on the depth of the lesion. Melanomas that are stage IB or higher are often considered for sentinel node biopsy for assessing prognosis. Stage III melanoma is treated with wide local excision, lymph node dissection, and possible adjuvant interferon. Immunotherapy has emerged as the primary systemic treatment for stage IV melanoma. Combination treatment with an anti-PD1 antibody (pembrolizumab, nivolumab) with ipilimumab, an anti-CTLA4 antibody, is most often selected for patients with metastatic melanoma (see MKSAP 18 Hematology and Oncology). Survival data suggest that up to 80% of patients receiving this combination will be alive at 2 years. Chemotherapy is typically reserved for patients who have progressed despite optimal systemic therapy. Radiation is usually reserved for palliative therapy for metastasis to the brain and bones. Thorough follow up including a full-body skin examination at routine intervals is crucial for patients with a history of melanoma.

KEY POINTS

- Identifying characteristics of melanoma are Asymmetry, irregular Border, multiple Colors, Diameter greater than 6 mm, and Evolution or change over time (ABCDEs).
- All suspicious pigmented lesions must be biopsied; the preferred method to biopsy is an excisional biopsy with 1- to 2-mm margin.
- For stage I and stage II, treatment of melanoma is surgical excision with the size of the margin based on the depth of the lesion; stage III is treated with wide local excision, lymph node dissection, and possible adjuvant interferon; and stage IV is treated with immunotherapy; chemotherapy is reserved for patients who progress despite optimal immunotherapy.

Pruritus

Pruritus, or itching, is one of the most common symptoms in dermatology. Itch sensation is transmitted to the central nervous system by C-fibers (which are distinct from C-fibers that transmit pain signals) and can be very disruptive to a patient's quality of life. Pruritus is commonly associated with a variety of skin diseases, yet it may also be seen independent of skin pathology. When first evaluating pruritus, it is important to establish if the itch is secondary to an inflammatory skin condition or present without a primary rash.

Several inflammatory skin diseases are associated with pruritus, including atopic dermatitis, contact dermatitis, lichen planus, and urticaria. Significant pruritus is also associated with burns and healing skin, and in xerotic, or dry skin, especially in older patients.

When pruritus occurs in the absence of skin findings, a variety of systemic diseases should be considered. Uremic pruritus is common in patients with chronic or end-stage kidney disease. It typically presents within 3 months of starting hemodialysis. Pruritus can also be associated with cholestatic hepatobiliary diseases (**Figure 90**). Pruritus associated with cirrhosis from alcoholic liver disease or hepatitis C infection can occur in the absence of cholestasis. Thyroid disease and polycythemia vera are other systemic diseases that might present with itching. Generalized pruritus may also be the presenting symptom in malignancies such as lymphocytic leukemia and Hodgkin lymphoma. Certain infections, such as HIV, may present with generalized itching as well.

Various psychiatric or somatization conditions can also manifest as itching (psychogenic itch) (**Figure 91**). Pruritus typically worsens during stressful or traumatic events. Patients with chronic pruritus have increased depression and impaired quality of life. Neuropathic pruritus describes the itch that is caused by dysfunction of a peripheral or central nerve(s) due to surgery, trauma, arthritis, neuropathy, or infection (postherpetic neuralgia). Neuropathic itch is often localized to a small, well-circumscribed area; examples include the forearm (brachioradial pruritus), posterior shoulder, or mid to upper back (notalgia paresthetica) (**Figure 92**).

A review of systems, complete blood count, thyroid function studies, kidney function tests, liver chemistry tests, HIV

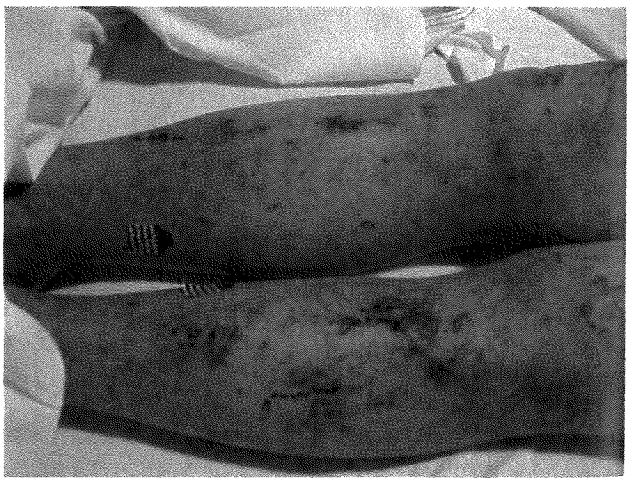

FIGURE 90. Linear excoriations in a patient with cholestatic liver.