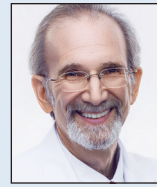


Dx ACROSS THE SKIN COLOR SPECTRUM



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Squamous Cell Carcinoma

THE COMPARISON

- A** A 51-year-old Hispanic man with a squamous cell carcinoma (SCC) of the keratoacanthoma type on the arm.
- B** A 75-year-old Black man with an SCC of the keratoacanthoma type on the abdomen.
- C** An African woman with an SCC on the lower lip decades after a large facial burn, which is known as a Marjolin ulcer.



Photographs courtesy of Richard P. Usatine, MD.

Cutaneous squamous cell carcinoma (SCC) develops from a malignant tumor of the keratinocytes, eccrine glands, or pilosebaceous units that invades the dermis. Risk factors include lighter skin tone, higher cumulative sun exposure, human papillomavirus (HPV) infection, hidradenitis suppurativa (HS), lichen sclerosus, family history of skin cancer,¹ and immunosuppression.² It typically affects sun-exposed areas of the body such as the face, scalp, neck, and extensor surfaces of the arms (Figure, A).^{3,4} However, in those with darker skin tones, the most common anatomic sites are those that are not exposed to the sun (Figure, B). Squamous cell carcinoma is diagnosed via skin biopsy. Treatment options include surgical excision, destructive methods such as electrodesiccation and curettage, and Mohs micrographic surgery. Cutaneous SCC has a cure rate of more than 95% and a mortality rate of 1.5% to 2% in the United States.³

Epidemiology

Squamous cell carcinoma is the most common skin cancer occurring in Black individuals, manifesting primarily in the fifth decade of life.⁵⁻⁷ It is the second most common skin cancer in White, Hispanic, and Asian individuals and is more common in males.⁸ In a study of organ transplant recipients (N=413), Pritchett et al⁹ reported that HPV infection was a major risk factor in Hispanic patients because 66.7% of those with SCC had a history of HPV. However, HPV is a risk factor for SCC in all ethnic groups.¹⁰

Key clinical features in people with darker skin tones

Anatomic location

- The lower legs and anogenital areas are the most common sites for SCC in patients with skin of color.^{4,11}
- In Black women, SCC occurs more often on sun-exposed areas such as the arms and legs compared to Black men.^{7,12-14}
- The genitalia, perianal area, ocular mucosa, and oral mucosa are the least likely areas to be routinely examined, even in skin cancer clinics that see high-risk patients, despite the SCC risk in the anogenital area.^{15,16}

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• Squamous cell carcinoma of the lips and scalp is more likely to occur in Black women vs Black men.^{4,7,17}

Clinical appearance

• In those with darker skin tones, SCCs may appear hyperpigmented⁴ or hyperkeratotic with a lack of erythema and an inconsistent appearance.^{6,7,18}

• A nonhealing ulceration of the skin should prompt a biopsy to rule out SCC.^{3,19}

Worth noting

In patients with darker skin tones, the risk for SCC increases in areas with chronic inflammation and scarring of the skin.^{4,6,7,11,18,20-22} In Black patients, 20% to 40% of cases of SCC occur in the setting of chronic inflammation and scarring.^{6,7,18} Chronic inflammatory conditions include ulcers, lupus vulgaris, discoid lupus erythematosus, and HPV. In patients with discoid lupus erythematosus, there is an additive effect of sun exposure on the scars, which may play a role in the pathogenesis and metastasis risk for skin cancer in Black patients.⁴ Other scarring conditions include thermal or chemical burn scars, areas of physical trauma, and prior sites of radiation treatment.^{14,23} Squamous cell carcinoma arising in a burn scar is called a Marjolin ulcer or malignant degeneration of a scar (Figure, C). It is reported more often in lower-income, underresourced countries, which may suggest the need for early detection in populations with skin of color.²⁴

Squamous cell carcinoma is more aggressive in sites that are not exposed to sun compared to sun-exposed areas.^{17,25}

The risk for SCC is increased in immunocompromised patients,² especially those with HPV.¹⁰

The prevalence of SCC in those with HS is approximately 4.6%. The chronic inflammation and irritation from HS in association with other risk factors such as tobacco use may contribute to the malignant transformation to SCC.²⁶

Health disparity highlight

• The risk for metastasis from SCC is 20% to 40% in Black patients vs 1% to 4% in White patients.^{4,6,27}

• Penile SCC was associated with a lower overall survival rate in patients of African descent.^{20,21}

• The increased morbidity and mortality from SCC in patients with skin of color may be attributed to delays in diagnosis and treatment as well as an incomplete understanding of tumor genetics.^{4,6,18}

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