Generalized HPV-associated SCCIS in the setting of HIV/AIDS

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Learning Objectives

- High-risk HPV is not typically associated with non-mucosal, non-anogenital squamous cell carcinoma in situ (SCCIS). A generalized eruption is reported in the setting of a new HIV/AIDS diagnosis
- Treatment of HIV with appropriate antiretroviral therapy (ART) can decrease HPV associated disease burden.

Case Presentation

A 46-year-old man was admitted with a new diagnosis of HIV, with a CD4+ count of 4/μL. Dermatology was consulted for generalized pruritic scaly papules, present for the past year.

- On exam, there were numerous scaly, hyperkeratotic, hyperpigmented papules – many in linear groups – predominately on all extremities and scattered on the anterior trunk (figure 1).
- Biopsy of four separate papules all demonstrated SCCIS within a verruca. P16 immunostain demonstrated strong and diffuse block-like staining (figure 2).
- In situ hybridization was performed on one lesion and was positive for high-risk HPV genotypes.

Figure 1. Numerous scaly, hyperkeratotic, hyperpigmented papules scattered on anterior trunk and extremities.

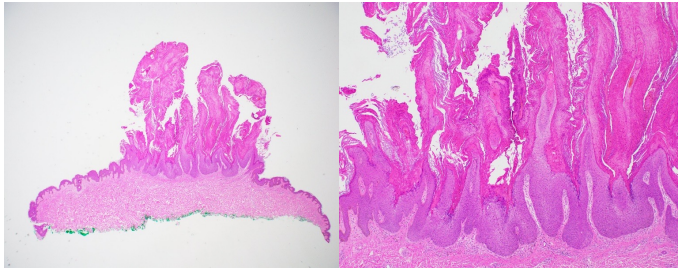

Figure 2. Low-power image of papule biopsy squamous cell carcinoma in situ (SCCIS) within a verruca.

Outcomes & Discussion

- This patient had a new diagnosis of HIV/AIDS with widespread papules, which revealed SCCIS arising within verruca and detection of high-risk HPV within a lesion.
- ART was initiated by the infectious disease service. Two biopsy-proven SCCIS underwent curettage, and 10 similar lesions were treated with cryotherapy in clinic. Most lesions were not treated with any procedure.
- On the most recent follow-up, there was complete resolution of all skin lesions with a CD4+ count of 171/μL.
- This case is noteworthy as aside from digital SCC, there is limited evidence linking non-mucosal, non-anogenital cutaneous SCC to high-risk HPV types.
- Across all HPV types and sites of infection, patients with HIV have a higher burden of HPV-associated cancers and a higher incidence of common and plantar warts.
- Treatment of HIV is associated with decreased prevalence of high-risk HPV infection, and a subset of studies have shown reduced HPV-associated cancer risk.
- Vaccination for HPV in HIV-positive patients is safe and produces an immunologic response, although data on effectiveness is limited.

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