Exophytic Tumors on Ankles of a Patient with Psoriasis

(See pages 1067–8 for the Photo Quiz)

Diagnosis: Extragential giant condyloma.

Sections of the biopsy specimen obtained from the patient’s left ankle (figure 1) showed an acanthotic epidermis with overlying compact hyperparakeratosis and papillary epidermal proliferation (figure 2). Typical cytopathic changes, including enlargement of keratinocytes and perinuclear halos, indicated a human papillomavirus (HPV) infection (figure 3).

Further viral typing by nested PCR confirmed the pathogen to be HPV type 11, a commonly encountered mucosal-type HPV. In accordance with previously published methods [1], the general consensus primers MY09 and MY11 were used in the first PCR to amplify the corresponding HPV L1 gene, followed by the second, nested PCR primers GP+5 and GP+6. HPV typing by DNA autosequence was analyzed using the online BLAST server.

The characteristic clinical appearance, as well as the findings of histopathologic examination and viral typing, confirmed the diagnosis of extragenital giant condyloma. The patient was treated first with cryotherapy and then with intralesional bleomycin injection, with a poor response. She refused further treatment because of pain and was lost to follow-up.

The HPVs are ubiquitous DNA viruses, and >200 types are presumed to exist. They can be classified clinically into 3 broad categories: mucosal-type, skin-type, and opportunistic infections. Mucosal-type HPV infection can be found occasionally in nongenital mucosal locations, such as the oral cavity or conjunctiva [2]. The presence of mucosal-type HPV on skin tags associated with Bowen disease have also been reported [3, 4]; however, nonmucosal condylomas are rare, except in in-
tertriginous or occluded areas [5–7]. It is extremely unusual to find condylomas on nonmucosal and nonoccluded areas, such as the legs (as in our patient).

In 1925, Buschke and Lowenstein first described giant genital condyloma [8]. Subsequently, a handful of reports put forward various clinical manifestations of giant condyloma on genital areas and suggested different therapeutic modalities for the condition. Not until recently did Googe et al. [7] define giant condylomas as lesions ≥2.5 cm in diameter.

A high prevalence of human papillomaviruses of the β genus has been detected in both lesional and nonlesional skin in patients with psoriasis [9–11]. This may be the result of genetic susceptibility and differential viral promotor activation from cytokines produced by psoriatic keratinocytes [12, 13]. However, no increased prevalence of mucosal-type HPV or condylomata acuminata was observed in patients with psoriasis [14]. The cause of extragenital condyloma in our patient remains speculative. Both decreased immunity after topical corticosteroid application and local trauma may be important. In general, cutaneous-type HPV infects keratinizing epithelium, whereas mucosal-type HPV infects nonkeratinizing epithelium.

Prolonged moist and weeping erosions of the skin secondary to chronic scratching had created a wet surface on our patient’s feet. The barrier function and local immunity were further impaired by the long-term application of topical corticosteroids, predisposing to this mucosal-type HPV (HPV type 11) infection [15, 16].

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