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QUIZ SECTION

Multiple Perianal Nodules in an HIV-positive Man: A Quiz

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A 39-year-old homosexual man presented with a 2-month history of nodules around the perianal region. He was HIV-1-positive, with no related symptoms, and was followed without treatment at another hospital. Physical examination revealed a 10-mm pink nodule and several smaller gray nodules coalesced around the perianal region (Fig. 1). Histopathological examination of the pink nodule reveled hyperkeratosis, papillomatosis, and acanthosis (Fig. 2a). Biopsy of a gray nodule showed a warty lesion composed of proliferating basaloid cells resulting in acanthotic epidermal rete ridges (Fig. 2b).

What is your diagnosis? See next page for answer.

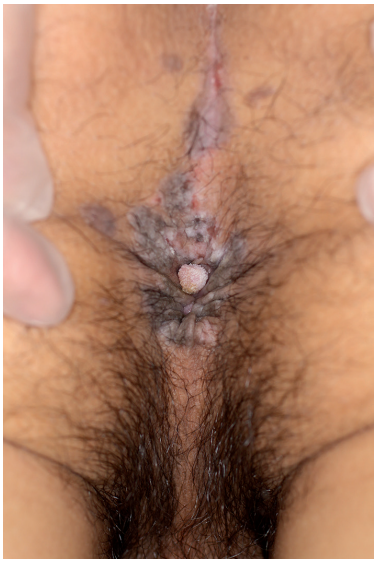

Fig. 1. A 10-mm pink nodule and small gray nodules coalesced around the perianal region.

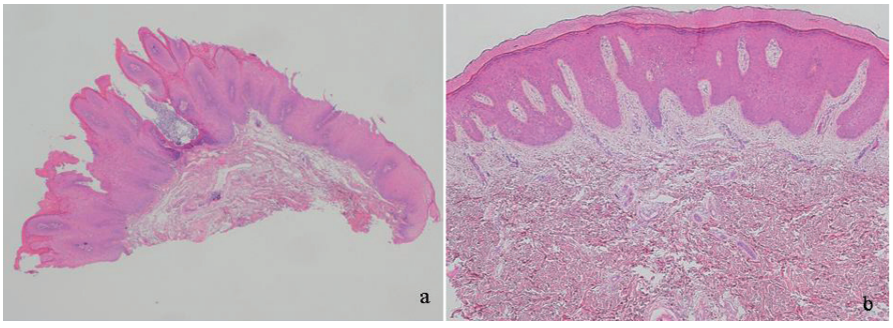

Fig. 2. Pink nodule showed hyperkeratosis, acanthosis, and papillomatosis (a). Gray nodule composed of proliferation epidermis with elongated and expanded rete ridges (b). (Haematoxylin-eosin stain; original magnification: a: × 12.5; b: × 40).

ANSWERS TO QUIZ

Multiple Perianal Nodules in a HIV-positive Man: A Comment

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Diagnosis: Condyloma accuminata and seborrhoeic keratosis

A high-power view of the pink nodule demonstrated a slightly disordered arrangement of keratinocytes without atypia in addition to koilocytes (Fig. 3a). The grey nodule showed in comparison with normal skin small cells with mild swelling and hyperchromasia had proliferated in the epidermis, but no clear clumping cell or mitosis were observed. Multiple koilocytes were seen in the middle of the epidermis (Fig. 3b). The immunohistochemical staining for p16 was performed by using a purified mouse anti-human $p16^{INK4a}$ monoclonal antibody (Pharmingen, San Diego, CA). Only sporadic or focal p16 staining was noted in either lesion (data not shown). Immunohistochemistry performed with a monoclonal anti-human papillomavirus (HPV) antibody (clone K1H8, Dako, Glostrup, Denmark) on paraffin sections of the pink nodule was positive for HPV antigens (Fig. 3c), but the gray nodule was negative (Fig. 3d). Since only paraffin-embedded tissues had been obtained, HPV typing could not be performed. The histological findings in the pink nodule were consistent with a diagnosis of condyloma acuminatum (CA) and in the grey nodules, seborrheic keratosis (SK).

The incidence of CA and other HPV infections within HIV-1-positive patients (19%) is increased over the general population (1, 2). CA is a benign tumour caused by infection with HPV of types 6 and 11. Bowenoid papulosis (BP) is also related to high-risk HPV types, including type 16. The existence of pigmented papules of CA has been rarely described (3). Typical cases of CA and BP can be easily diagnosed based on the clinical features alone. However, it is sometimes difficult to distinguish CA from BP and SK when CA manifests as pigmented lesions. Very recently, Kazlouskaya et al. (4) reported that p16 staining is a powerful tool for differentiation CA from BP.

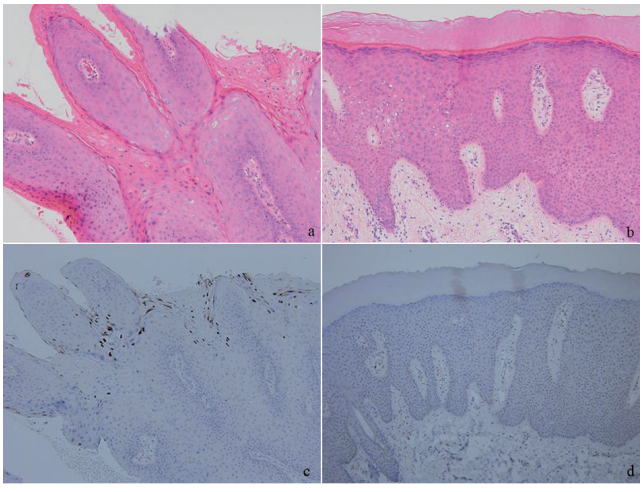

Fig. 3. High-power view of pink nodule showed a slightly disorderly arrangement of keratinocytes without atypia in addition to koilocytes (a). Comparison of grey nodule with normal skin revealed that small cells with mild swelling and hyperchromasia proliferating in the epidermis, but no clear clumping cell or mitosis were observed (b). Pink nodule: immunohistochemistry was positive coinciding with koilocytes for the detection of HPV antigens (c) Grey nodule: immunohistochemistry was negative for the detection of HPV antigens (d) (HE; ×100).

Even histopathologically, SK and CA share some features in common and, occasionally, it is very difficult to differentiate between them. A specific diagnosis of CA can be made only when koilocytes are identified (5). Lesions in which koilocytes are absent and HPV DNA is not detected by current techniques can be SK, and vice versa SK replete with HPV is really CA (5). Koilocytes could be identified histologically in the gray nodule in our case, however, immunohistochemistry was negative for HPV antigens using a monoclonal anti-HPV antibody. By contrast, immunohistochemistry was positive in the pink nodule. Because of the clinical appearance of the gray nodules in our case, we errornously suspected BP or pigmented CA. The results of p16 staining and immunohistochemistry with monoclonal anti-HPV antibody however led to the diagnosis of SK.

SK is more common in older patients in sun-exposed areas, and cases involving the perianal region are rare (6, 7). In the pathogenesis of multiple SK, the role of circulating tumour-derived transforming growth factors (TGFs) and melanocyte-derived growth factors acting on keratinocytes has been reported (8). The role of platelet-derived growth factor, TGF-α and TGF-β in the pathogenesis of neoplasms such as Kaposi's sarcoma in HIV-infected persons is well known (9). There is the possibility of a similar phenomenon giving rise to this clinical feature in our patient. Why multiple SK localised to the perianal region developed in our case is unknown.

REFERENCES

1. Smith KJ, Skelton HG, Yeager J, Ledsky R, McCarthy W, Baxter D, et al. Cutaneous findings in HIV-1-positive patients: a 42-month prospective study. Military Medical Consortium for the Advancement of Retroviral Research (MMCARR). J Am Acad Dermatol 1994; 31: 746–754.
2. Syrjanen SM, Von Krogh G, Syrjanen KJ. Anal condylomas in men. 1. Histopathological and virological assessment. Genitourin Med 1989; 65: 216–224.
3. Kimura S. Condylomata acuminate with pigmented popular lesions. Dermatologica 1980; 160: 390–397.
4. Kazlouskaya V, Shuster E, Allam SH, Lal K, Elston D. Expression of p16 protein in lesional and perilesional condyloma acuminata and bowenoid papulosis: clinical significance and diagnostic implications. J Am Acad Dermatol 2013; 69: 444–449.
5. Li J, Ackerman AB. Seborrheic keratosis that contain human papillomavirus are Condylomata acuminata. Am J Dermatopathol 1994; 16: 398–405.
6. Stefanaki C, Rozakou A, Stefanaki K, Christofidou E, Antoniou C. Giant perianal seborrhoeic keratosis mimicking condyloma acuminate. Int J STD AIDS 2009; 20: 213–214.
7. Noronha TM, Girisha BS, Kishanprasad HL, Fernandes MS. A rare case of multiple genital and perianal melanoacanthomas. Indian J Dermatol Venereol Leprol 2012; 78: 202–204.
8. Schwartz RA. Newark MPH. Sign of Leser-Trélat. J Am Acad Dermatol 1996; 35: 88–95.
9. Roth WK, Brandstetter H, Sturzl M. Cellular and molecular features of HIV associated Kaposi's sarcoma. AIDS 1992; 6: 895–913.