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A Case of Suggested Pigmented Condyloma Acuminatum

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Dear Editor:

Human papillomavirus (HPV) infection of the genital skin is highly prevalent and showed variable presentations. Low-risk HPV type 6 or 11 is usually detected in cases of condyloma acuminatum (CA), while high-risk HPV type 16 or 18 is detected in cases of bowenoid papulosis (BP)[1]. Expression of p16 protein (p16) has also been identified as a marker for HPV infection and is typically associated with neoplasia of the genital lesion[2].

We received the patient's consent form about publishing all photographic materials. A 29-year-old male patient presented with multiple brownish verrucous papules on his penis that had been present for 1 year and had been progressively increasing in size. He had no subjective symptoms including pruritus or pain. He had no family or personal history of skin cancer or other medical diseases. Physical examination revealed multiple, 0.7×0.8 cm sized brownish verrucous papules around the penile shaft (Fig. 1). Histopathological examination revealed parakeratosis, acanthosis, papillomatosis, vacuolated keratinocytes and a slightly disordered arrangement of keratinocytes without atypia throughout the thickened epidermis (Fig. 2A, B). Focal positive p16 expression was present in the lesion (Fig. 2C). HPV DNA chip™ microarray analysis

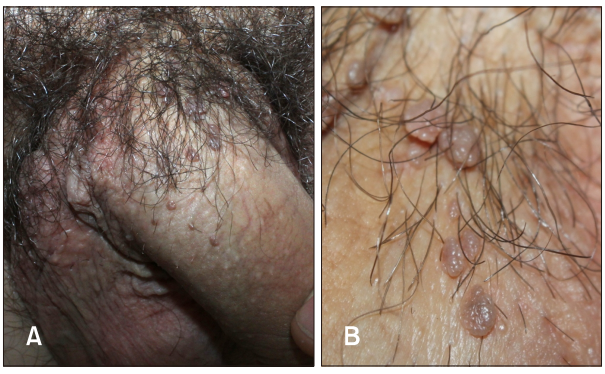

Fig. 1. (A, B) Multiple, 0.7×0.8 cm brownish verrucous papules around the penis shaft.

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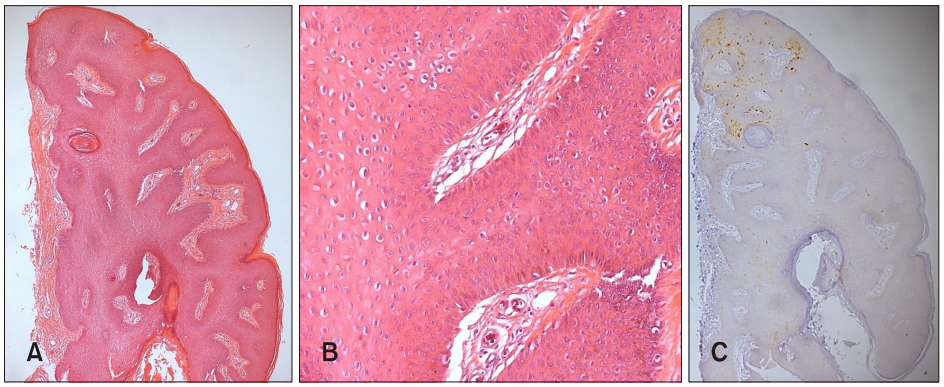

Fig. 2. Histopathological examination revealed parakeratosis, acanthosis, papillomatosis, vacuolated keratinocytes and a slightly disordered arrangement of keratinocytes without throughout the thickened epidermis. Focal positive p16 expression in the lesion (A: H&E, ×40; B: H&E, ×200; C: p16, ×40).

(My Gene Co., Seoul, Korea) was used for HPV genotyping and HPV-6 was identified from DNA extracted from the lesion. Based on these findings, a diagnosis of suggested pigmented CA was made. The lesion was successfully treated with electroablation. Follow-up over 1 year showed no recurrence of the lesions.

Clinically, it is difficult to distinguish CA from BP and Bowen's disease when CA exhibits pigmentation[3]. Although BP and CA are infectious disease caused by HPV, BP is caused by HPV 16 and 18 and histologically, BP resembles Bowen's disease. In Bowen's disease, atypical squamous cells proliferate through the whole thickness of the epidermis. HPV typing is helpful in gaining a better understanding of the relationship between clinical findings and HPV genotypes.

Kazlouskaya et al.[4] reported that while 24 patients with CA showed sporadic and focal positive staining for p16, 12 patients with BP exhibited diffuse staining for p16. Consistent with the prior study, this case also showed a focal positive pattern for p16 stain. The exact mechanism of pathogenesis for pigmented CA remains unclear. Although Shimizu et al.[5] speculated that a variety of HPV strains may induce melanogenesis[5], more comprehensive study is needed to explain pathways affecting pigmentation in CA.

As far as it is possible to determine, there have been no cases of pigmented CA in the Korean literature. Herein, is reported a rare and interesting case of a patient with suggested pigmented CA. Due to the difficulty of making the clinical diagnosis between pigmented CA, BP and Bowen's disease in certain cases, HPV DNA chip microarray and pattern of p16 staining are helpful for distinguishing pigmented CA from other disorders.

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CONFLICTS OF INTEREST

The authors have nothing to disclose.

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