Actas Dermosifiliogr. 2008;99:75-6

CASES FOR DIAGNOSIS

Verrucous Papules on the Glans Penis

ML García-Melgares, A Martínez, and V Alegre
Servicio de Dermatología, Consorcio Hospital General Universitario de Valencia, Valencia, Spain

Clinical History

We present the case of an 81-year-old man with a history of benign prostatic hypertrophy, who was seen for a 6-month history of lesions in the balanopreputial sulcus. The patient denied any high-risk sexual relationships.

Physical Examination

Three small papules with a diameter between 3 mm and 5 mm were observed. The lesions were sessile, of yellow-pink color, with a velvety, verrucous appearance, and were completely asymptomatic (Figure 1). There were no palpable regional lymph nodes.

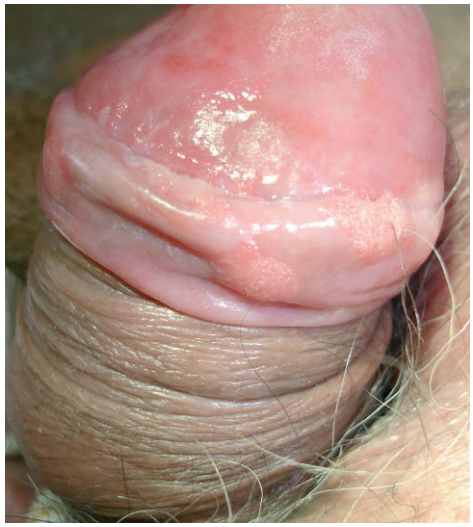

Figure 1.

Complementary Tests

After examination, a blood test was performed including complete blood count, biochemistry, and serology for hepatitis B and C viruses, syphilis, and human immunodeficiency virus, all with normal results.

Histopathology

A shave biopsy was performed of one of the lesions for histological study (Figures 2 and 3). Microscopic examination revealed epidermal hyperplasia with acanthosis, papillomatosis, and areas of parakeratosis, with no cellular atypia, and with a large number of foamy histiocytes occupying the connective tissue of the dermal papillae. These cells contained lipids and granules with a positive reaction to periodic acid Schiff, were not found beyond the inferior border of the rete ridges, and were associated with a mild polymorphonuclear infiltrate in the most superficial layers of the epidermis.

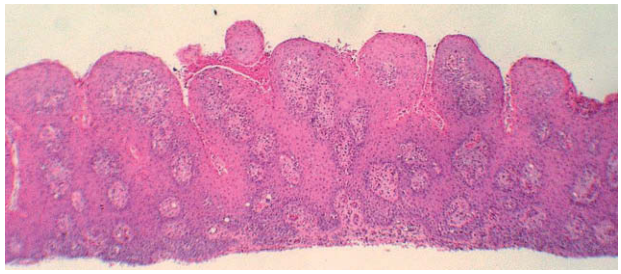

Figure 2. Hematoxylin-eosin, ×40.

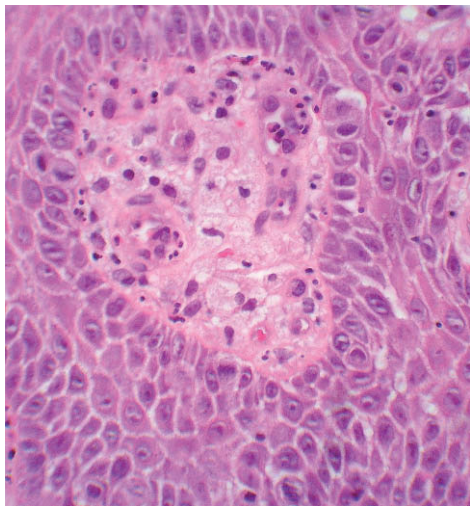

Figure 3. Hematoxylin-eosin, ×400.

What Was the Diagnosis?

Correspondence:
Mª Luisa García-Melgares Linares
Servicio de Dermatología
Consorcio Hospital General Universitario de Valencia
Avda. Tres Cruces, s/n
46014 Valencia, Spain
magarlider@hotmail.com

Manuscript accepted for publication April 16, 2007.

Diagnosis

Verruciform xanthoma of the penis.

Clinical Course and Treatment

The lesions were treated with several cycles of cryotherapy, leading to their progressive disappearance. The patient has not presented recurrence.

Discussion

Verruciform xanthoma is an uncommon, benign disorder first described by Shafer in 1971 in the oral mucosa.[1] Since that time, the majority of cases published have involved this region (mainly affecting the gums and dental alveoli).[2] Extraoral sites are very rare.

The lesions appear as well-defined, white, pale yellow, or reddish papules or plaques. They may be sessile or pedunculated, with a surface that is papillary or similar to a verruca. They rarely exceed 2 cm in diameter and are occasionally multiple. The most common clinical presentation is as a superficial, whitish, papillomatous plaque with a "cauliflower" appearance, or else as a raised, yellowish plaque with a "fish-egg" appearance.[3]

The incidence of verruciform xanthoma of the penis shows 2 peaks, one in the third and fourth decades of life, and the other around the seventh decade.[4] The most common site is the glans, followed by the foreskin and balanopreputial sulcus.[5]

The diagnosis of this disorder is made by histopathological study, which reveals uniform epidermal acanthosis without atypia, hyperkeratosis with parakeratosis, and vascular ectasia. Sometimes, columns of keratin may be observed to descend along the epidermal invaginations, and neutrophils in the areas of parakeratosis. The pathognomic characteristic is the finding of foamy histiocytes occupying the connective tissue of the dermal papillae, and which are limited to this site. These xanthomatous cells contain lipid vacuoles in their cytoplasm that stain with periodic acid Schiff,[4] and may be associated with a variable inflammatory infiltrate below and between the xanthomatous cells.[4]

The importance of recognizing penile verruciform xanthoma derives from its differential diagnosis, as it may be confused with seborrheic keratosis, condyloma acuminatum, condyloma latum, verrucous carcinoma, Bowen disease, or squamous cell carcinoma of the penis. However, verruciform xanthoma is the only lesion that presents with foamy histiocytes confined to the dermal papillae.

The etiology of verruciform xanthoma is not fully understood. It has been suggested that the lesions arise due to damage to the epithelial cells; as these degenerate, they release lipids that are phagocytosed by macrophages.[6] The typical localization of these lesions on the gums and palate, areas that are constantly suffering trauma due to mastication, would support this hypothesis.[5] The reactive nature of this lesion does appear to be confirmed.

The treatment of choice is simple excision.[3] Locally applied destructive therapeutic techniques, such as cryotherapy, are good alternatives, as proved to be the case with our patient.

Acknowledgments

We would like to thank Dr Dionisio Muñoz for his valuable contribution to this case.

Conflicts of Interest
The authors declare no conflicts of interest.

References

1. Shafer WG. Verruciform xanthoma. Oral Surg. 1971;31: 784-9.
2. Nowparast B, Howel FV, Rick GM. Verruciform xanthoma. Oral Surg. 1981;51:619-25.
3. Torrecilla C, Marco LM, Dinares J, Autonell J. Xantoma verruciforme de pene. Actas Urol Esp. 1997;21:797-9.
4. Cuozzo DW, Vachher P, Sau P, Frishberg DP, James WD. Verruciform xanthoma: a benign penile growth. J Urol. 1995;153:1625-7.
5. Xia TL, Li GZ, Na YO, Guo YL. Verruciform xanthoma of the penis: report of a case. Chin Med J (Engl). 2004;117: 150-2.
6. Mostafa KA, Takata T, Ogawa I, Ijuhin N, Nikai H. Verruciform xanthoma of the oral mucosa: a clinicopathological study with immunohistochemical findings relating to pathogenesis. Virchows Arch A Pathol Anat Histopathol. 1993;423:243-8.