Response of pruritic scrotal epidermolytic acanthomas to pimecrolimus 1% cream

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Abstract

Epidermolytic acanthomas (EA) are rare benign tumors of unclear etiology that present as flat, sometimes slightly keratotic, pale or whitish papules that are usually asymptomatic. Not uncommonly, their clinical appearance in the anogenital area might lead to misdiagnosis as other lesions that commonly develop at this site, such as condylomata acuminata. Though mainly asymptomatic, there are also reports of EA presenting with persistent genital pruritus. We describe the first reported case of pruritic scrotal EA successfully treated with topical pimecrolimus.

Keywords: epidermolytic acanthomas, epidermolytic hyperkeratosis, pruritus, pimecrolimus, topical therapy

Introduction

Epidermolytic acanthomas (EA) are rare benign tumors of unclear etiology that were first described in 1970 by Shapiro and Baraf [1]. They typically present in adulthood and although they may develop at any site in the body, they most frequently affect the anogenital area. They have been described in solitary, localized, or disseminated forms. Histologically, they are characterized by epidermolytic hyperkeratosis, a reactive pattern that may be found in various skin conditions. Epidermolytic acanthomas lesions present as flat, sometimes slightly keratotic, pale or whitish papules that are usually asymptomatic. Not uncommonly, their clinical appearance in the anogenital area might lead to misdiagnosis as other lesions that commonly develop at this site, such as condylomata acuminate [2,3]. Although mainly asymptomatic, EA occasionally presents with pruritus [4-6]. We report a patient with pruritic scrotal EA successfully treated with topical pimecrolimus.

Case Synopsis

A man in his late 60s, with a 30-year-long history of moderate-to-severe plaque psoriasis currently controlled with ustekinumab, presented to our dermatology department for a 1-year-long history of genital pruritus. Prior attempts with oral antihistamines, emollients, and topical corticosteroids had been ineffective. At the moment of consultation, the patient reported an itch intensity of 10 on a visual analogue scale (VAS). He described a desperate need to repeatedly scratch his scrotum owing to the continuous nature of the pruritus. Physical examination revealed a markedly thickened scrotal skin, with no evidence of eczematous or psoriasiform lesions. Upon close examination, small papules with a flat whitish surface were observed on the scrotum (**Figure 1**).

A skin biopsy from one of these papules was performed. Histological examination revealed focal acanthosis and compact hyperkeratosis with parakeratosis. Keratinocyte degeneration was observed in the spinous and granular strata, with loss of cell borders, eosinophilic bodies, and clumps of medium and large keratohyaline globules (**Figure 2**). A diagnosis of scrotal EA was made.

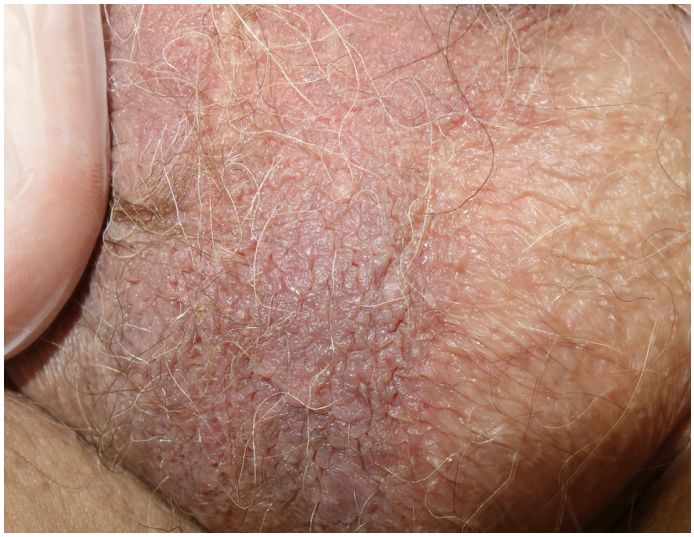

Figure 1. *Clinical findings in pruritic scrotal epidermolytic acanthomas. Left view of the scrotum showing a markedly thickened scrotal skin and several subtle, small papules with a flat whitish surface.*

Given that the patient sought alleviation of pruritus but had no aesthetic concerns and was not keen on treatment with destructive methods, therapy with daily topical application of pimecrolimus 1% cream was started. At the follow-up visit one month into therapy the patient described a radical improvement with almost complete reduction in pruritus and cessation of scratching. His itch intensity score on the VAS was now 0 on most days, occasionally noting only a mild pruritus, graded as VAS 1, approximately once weekly. Furthermore, he denied having experienced any adverse effects to the treatment. He maintains response with two applications weekly as of his 3-month follow-up visit. Regarding the improvement of the EA, scrotal lesions remain stable in number and size. Nevertheless, this does not seem to hinder his satisfaction with the treatment.

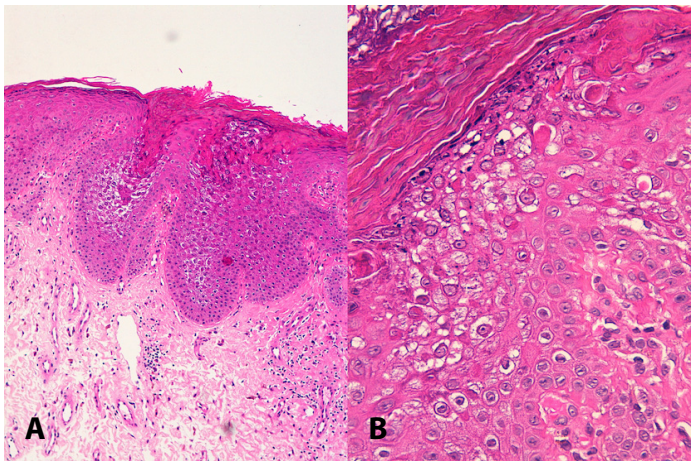

Figure 2. *Histological findings in scrotal epidermolytic acanthomas. Focal acanthosis and compact hyperkeratosis with parakeratosis are observed. There is keratinocyte degeneration in the spinous and granular strata, with loss of cell borders, eosinophilic bodies and clumps of medium and large keratohyaline globules. H&E,* ***A)*** *100×;* ***B)*** *400×.*

Case Discussion

Although the etiology of EA is uncertain, trauma is considered to be one of the factors implicated in its pathogenesis [5,6]. We believe this was the case in our patient, judging by the sustained trauma produced by repeated scratching of the scrotum. However, as observed in several reports in the literature, EA lesions might themselves be pruritic [4-7]. In any case, physicians should aim to treat pruritus in these patients to avoid perpetuation of both pruritus and lesions. Several destructive methods have been reported successful for clearing EA, including imiquimod [7]. Severe pruritus associated with anogenital EA has been reported to subside almost completely with topical tacrolimus 0.1% ointment, highlighting the importance of breaking the 'itch-scratch cycle' [6]. Although a favorable response may be observed, it is known that topical calcineurin inhibitors can be irritating when applied on already pruritic, inflamed, or eroded skin. In these cases, they can be started in combination with topical steroids.

Conclusion

We describe a patient with symptomatic scrotal EA with recalcitrant pruritus successfully treated with daily applications of topical pimecrolimus. Given our case and this previous observation, topical calcineurin inhibitors could be useful for the treatment of persistent scrotal pruritus in this context.

Acknowledgements

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Potential conflicts of interest

The authors declare no conflicts of interest.

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