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BRIEF REPORT

A Case Report of Hailey–Hailey Disease Treated with Alitretinoin

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Dear Editor:

A 50-year-old male patient with a 5-year history of recurrent skin lesions had been treated with topical methylprednisolone, topical mupirocin, and oral prednisolone up to 0.5 mg/kg, but showed no improvement of the lesions. He had a family history of similar symptoms on his father's side. Clinical examination revealed erythematous exudative plaques with erosions on both axillae and inguinal areas (Fig. 1A, B). He complained of pain on the lesions, and had no systemic symptoms, such as fever. Histopathologic examination showed intraepidermal clefts, corp ronds, and extensive acantholysis throughout the epidermis, giving a "dilapidated brick wall" appearance (Fig. 2). Based on these findings, a diagnosis of Hailey–Hailey disease (HHD) was made. He was started on oral alitretinoin at 30 mg per day combined with topical desoxymethasone. After 3 months, the lesions were substantially resolved, with mild erythema and erosions (Fig. 1C, D). To date, for the total 9-month treatment period, he has been maintained in remission with alitretinoin

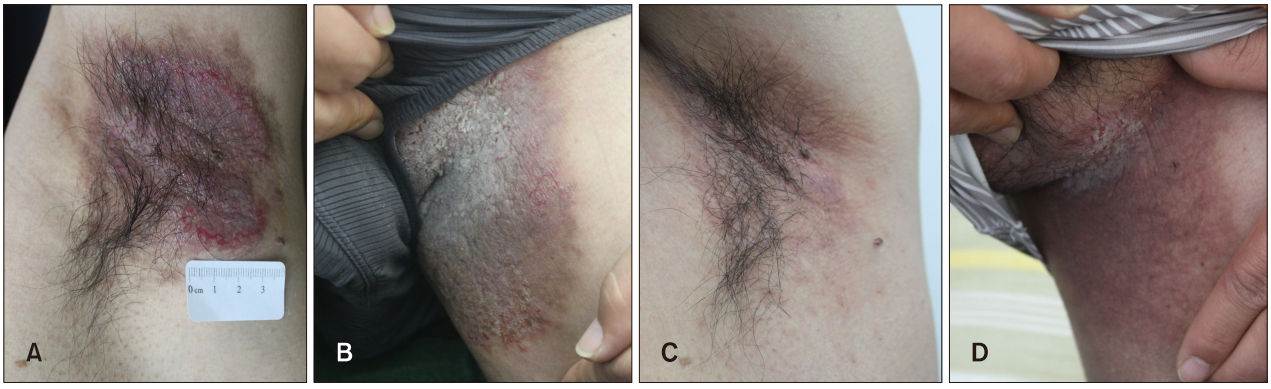

Fig. 1. (A, B) Erythematous exudative plaques with erosions on both axillae and inguinal areas. (C, D) Clinical findings of the lesions treated with oral alitretinoin and topical steroid after 3 months.

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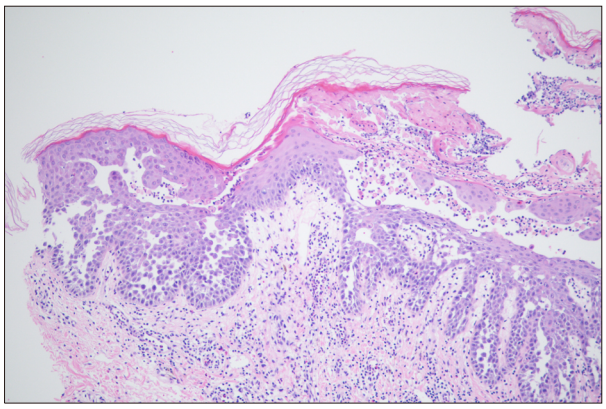

Fig. 2. Histopathologic findings of the lesion show suprabasal clefts and extensive acantholysis giving the appearance of "dilapidated brick wall" (H&E, ×100).

at 30 mg daily. Occasional episodes of relapse were well controlled with topical steroids. Side effects, such as headache, were not reported. We received the patient's consent form about publishing all photographic materials.

HHD is a rare autosomal-dominant blistering skin disease caused by mutations in the ATP2C1 gene encoding Ca^{2+}/Mn^{2+} ATPase isoform 1 expressed in the Golgi apparatus. It affects flexural and intertriginous areas. HHD has a chronic course with repeated relapse and remission. Bacterial or fungal infections are common. Various therapeutic options are available, including antibacterial and antifungal agents, corticosteroids, immunosuppressants, vitamin D derivatives, retinoids, dapsone, biologics, surgical excision, and laser therapy. However, these treatments are often ineffective or have only limited success. Retinoids, such as acitretin and isotretinoin, have sometimes been used for treatment of HHD. Retinoids regulate cell proliferation, differentiation, keratinization, immunomodulation, and cellular adhesiveness, and may also directly or indirectly upregulate ATP2A2 and ATP2CA gene expression[1]. Darier disease arising from mutation in ATP2A2 encoding sarco/endoplasmic reticulum calcium ATPase, is very similar to HHD, and has been reported to respond to oral alitretinoin[2,3]. There has also been a report of a patient who did not respond to isotretinoin but showed improvement with alitretinoin[3]. To date, however, there have been only two case reports of HHD treated with oral alitretinoin[4,5]. Patient 1 was treated with alitretinoin and narrow-band ultraviolet B therapy followed by alitretinoin monotherapy, Patient 2 was treated with alitretinoin and prednisone, and Patient 3 was treated with alitretinoin and topical steroid. All of these patients showed remarkable improvement within 2 to 4 weeks, and remained in remission with alitretinoin alone or in combination with topical steroid treatment for 3 to 12 months.

Alitretinoin, 9-*cis*-retinoic acid, is a pan-agonist for retinoid receptors. It is the only retinoid that can bind to all subclasses of retinoic acid and retinoid X receptors, and so may have greater efficacy than other retinoids. Due to its short half-life, alitretinoin also has a shorter period of activity than acitretin and has a better safety profile than other retinoids. Based on these benefits and its tolerability, we suggest alitretinoin as an additional therapeutic option for refractory HHD.

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CONFLICTS OF INTEREST

The authors have nothing to disclose.

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