

A Case of Scabies Resembling Darier's Disease

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Darier's disease, also known as dyskeratosis follicularis or keratosis follicularis, is an autosomal dominant inherited skin disorder characterized by yellowish to brownish, greasy papules and plaques in the first or second decade of life. The skin lesions predominantly erupt on the seborrheic areas, including the scalp, forehead, trunk, and groin¹.

Scabies is a parasitic infestation of the skin caused by the mite *Sarcoptes scabiei*, which presents with multiple morphologies. The typical distribution of scabies infestation is mainly the interdigital spaces of the fingers; however, it can be also observed in the wrists, axillae, groins, buttocks, and genitals. Because the diagnosis of scabies is made largely on clinical grounds, atypical scabies is often misdiagnosed as other skin diseases². Here, we report a rare case of scabies resembling Darier's disease.

A 39-year-old man with a medical history of hypertension and dyslipidemia presented to our clinic with generalized pruritic skin lesions for 1 year. Physical examination revealed erythematous to brownish hyperkeratotic papules and plaques predominantly on the upper back and flexural areas. No burrows on the web spaces or nail involvement were found in this patient (Fig. 1). The patient's parents had similar pruritic skin lesions. The laboratory findings were unremarkable. With the initial suspicion of Darier's disease, the patient was treated with acitretin, corticosteroid, and cyclosporine for 1 year at a local clinic. Although the symptoms slightly improved, the lesions remained; therefore, the patient was referred to our clinic.

Skin punch biopsy was performed, and histopathological examination showed a scabies infestation (Fig. 2) without

any pathological evidence of Darier's disease. Based on the patient's history and clinical and histological findings, the patient was finally diagnosed with atypical, crusted scabies. He and his family were treated successfully with permethrin cream and topical corticosteroid.

Scabies is difficult to diagnose even for experienced physicians because of its multiple clinical morphologies. In the patient in this case report, the skin lesions that occurred mainly on the back, axilla, and inguinal areas and not the interdigital web spaces might have led to the suspicion of Darier's disease rather than scabies infestation.

The hyperkeratotic, crusted papules and plaques are an uncommon clinical presentation of scabies infestation, which made it difficult to diagnose. Crusted scabies, also referred to as Norwegian scabies, presents as hyperkeratotic papules or plaques that should be distinguished from other skin diseases, such as psoriasis, seborrheic dermatitis, and Darier's disease³. It is often associated with immunocompromised states caused by topical glucocorticoids^{4,5}. It is hypothesized that the reduced inflammatory response elicited by sensitization to scabies infestation in immunosuppressed hosts promotes the atypical clinical manifestations of scabies³. In the patient in this case report, it can be presumed that he was immunosuppressed due to the long-term use of cyclosporine and extensive topical corticosteroids, which may reduce local immune responses and promote the atypical features of scabies infestation.

In conclusion, we report an atypical case of scabies resembling Darier's disease in Korea. This case report highlights that the clinical presentation of Darier's disease could be unusual

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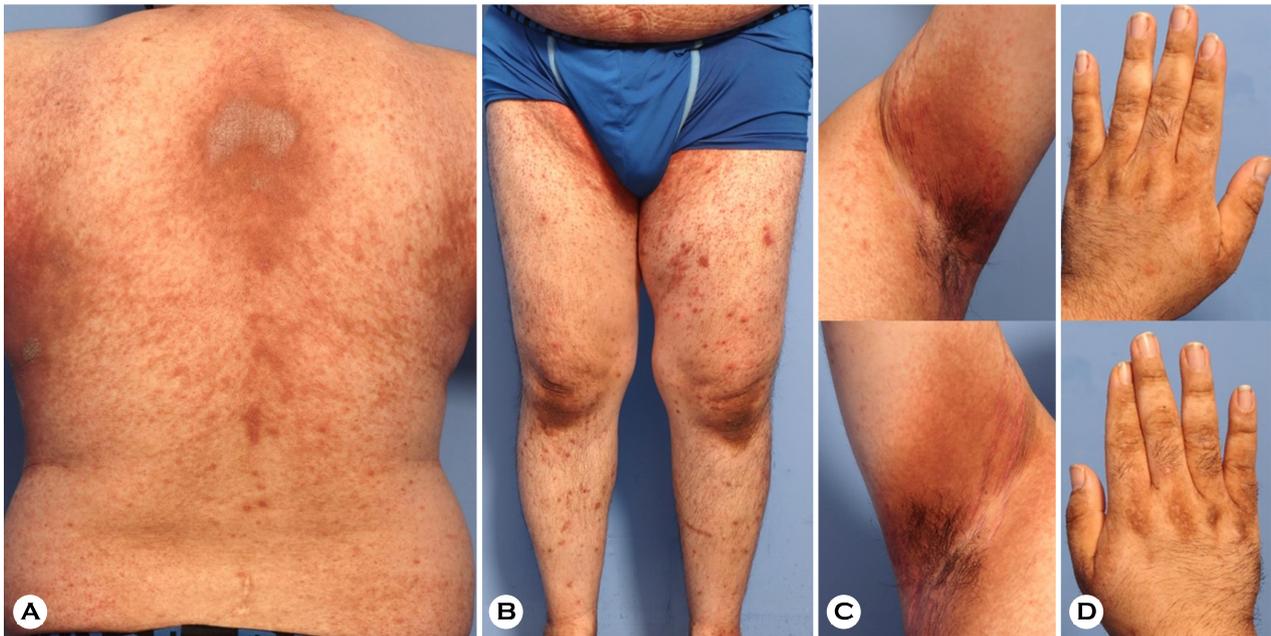


Fig. 1. Pruritic erythematous to brownish hyperkeratotic papules and plaques on the trunk and both extremities; (A) back (B) both legs (C) both axilla (D) both hands

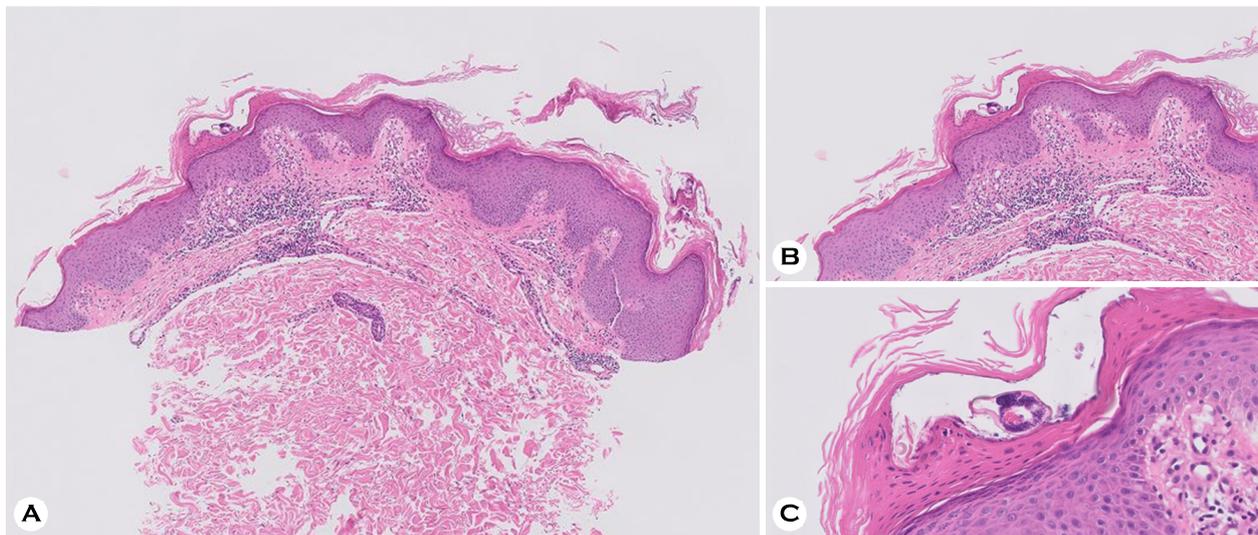


Fig. 2. Histopathology revealed the mite transected in the stratum corneum (H&E; (A): ×40, (B): ×100, (C): ×400).

types of scabies, although rare. If Darier's disease does not improve with proper treatment, it should be distinguished clinically and histologically from scabies.

Key Words: Darier's disease, Scabies

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CONFLICT OF INTEREST

In relation to this article, we declare that there is no conflict of interest.

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PATIENT CONSENT STATEMENT

The patient provided written informed consent for the publication and the use of his images.

REFERENCES

1. Sehgal VN, Srivastava G. Darier's (Darier-White) disease/keratosis follicularis. *Int J Dermatol* 2005;44:184-192
2. Thomas C, Coates SJ, Engelman D, Chosidow O, Chang AY. Ectoparasites: Scabies. *J Am Acad Dermatol* 2020; 82:533-548
3. Anolik MA, Rudolph RI. Scabies simulating darier's disease in an immunosuppressed host. *Arch Dermatol* 1976;112: 73-74
4. Bilan P, Colin-Gorski AM, Chapelon E, Sigal ML, Mahé E. Crusted scabies induced by topical corticosteroids: A case report. *Arch Pediatr* 2015;22:1292-1294
5. Marlière V, Roul S, Labrèze C, Taïeb A. Crusted (Norwegian) scabies induced by use of topical corticosteroids and treated successfully with ivermectin. *J Pediatr* 1999;135:122-124