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CASE REPORT

Bullous Darier's Disease Mimicking Hailey-Hailey Disease

Aida Khaled · Myriam Ben Hamida · Samia Goucha · Rachida Zermani · Soumaya Rameh · Sabra Ben Taazayet · Mohamed Ridha Kamoun · Bécima Fazaa

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ABSTRACT

Background: The bullous variant of Darier's disease (DD) is a rare type characterized by histological and clinical overlap with Hailey-Hailey disease (HDD). ***Case reports***: The following case report describes two cases of familial DD; a 51-year-old woman who presented with erythematous plaques, covered by small blisters in axillary and inguinal areas, and the first patient's daughter, who presented with keratotic papules localized on the axillary and inframammary folds. ***Conclusion:*** These two cases are original by the predominant flexural distribution, and by a bullous form in the first case, clinically and histologically mimicking HHD.

Keywords: bullous Darier's disease; Hailey-Hailey disease; skin lesions

Aida Khaled · Myriam Ben Hamida · Sabra Ben Taazayet · Mohamed Ridha Kamoun · Bécima Fazaa
Department of Dermatology, Charles Nicolle Hospital, Boulevard 9 Avril, 1006, Tunis, Tunisia

Samia Goucha (✉)
Unit of Dermatology, Mongi Slim Hospital, Sidi Daoud 2046, Tunis, Tunisia. Email: samiagoucha@yahoo.fr

Rachida Zermani · Soumaya Rameh
Department of Histopathology, Charles Nicolle Hospital, Boulevard 9 Avril, 1006
Tunis, Tunisia

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BACKGROUND

The bullous variant of Darier's disease (DD) is a rare type with clinical and histological features suggestive of Hailey-Hailey disease (HHD).[1] It is a rare form, initially described by Pels and Goodman in 1939.[2] There were only few similar reported cases.[1-6] The following case report describes two cases of DD characterized by predominant flexural distribution and a bullous form, in one case, clinically and histologically mimicking HHD.

CASE REPORT 1

A 51-year-old woman with no past medical history presented with pruritic lesions involving the flexural areas. Informed consent was obtained from the patient. She reported that her father

and her daughter had similar skin lesions on skin folds. Her three other children were healthy. Cutaneous examination revealed erythematous plaques, with macerated and eroded surface, partially covered by small blisters in axillary and inguinal areas, with parallel rhagades on the groins and the internal aspects of the thighs (Figure 1). Palms, soles, oral and genital mucosa, and nails were normal. Histopathological examination of a biopsy specimen revealed suprabasal clefting with acantholysis, and a few foci resembling a "dilapidated brick wall." Rare dyskeratotic cells were also observed with "corps ronds" in the stratum spinosum (Figure 2). Direct immunofluorescence on cutaneous biopsy was negative. The diagnosis of HHD was proposed. The patient was treated with topical antimicrobials, which lead to complete healing of the erosions, leaving no macroscopic changes, other than a temporary pigmentation. A relapse occurred one year later with a rapid improvement under topical antimicrobials.

Figure 1. Erythematous plaques, with parallel rhagades on the groins and the internal aspects of the thighs.

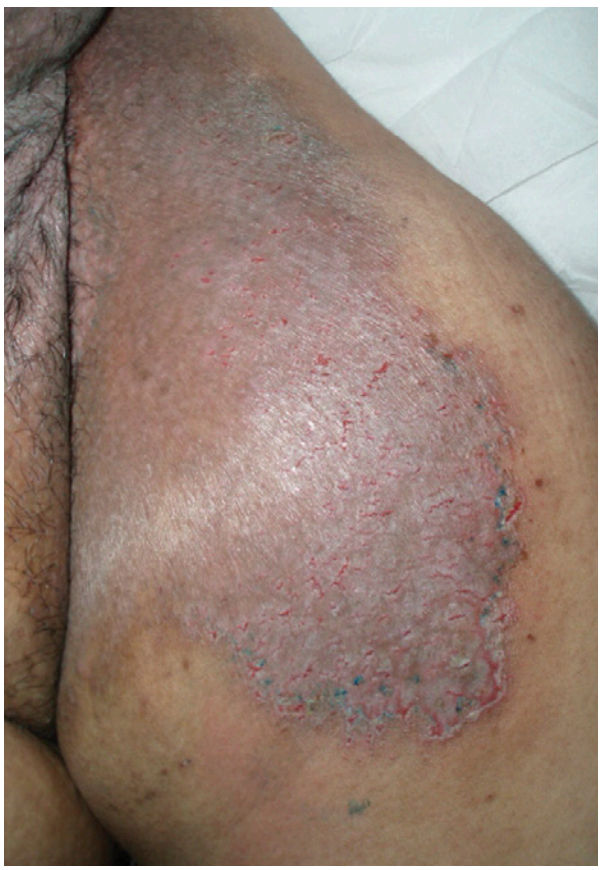
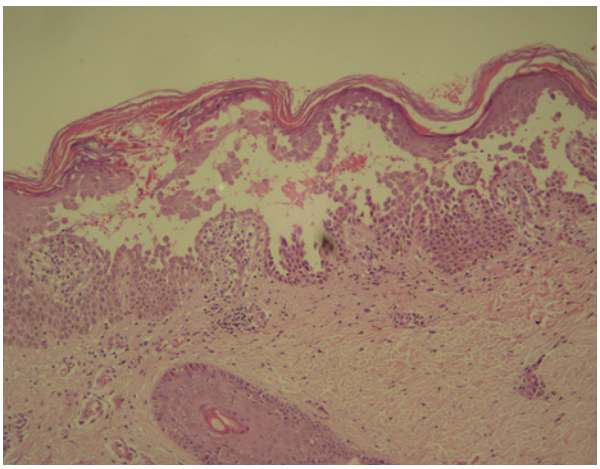


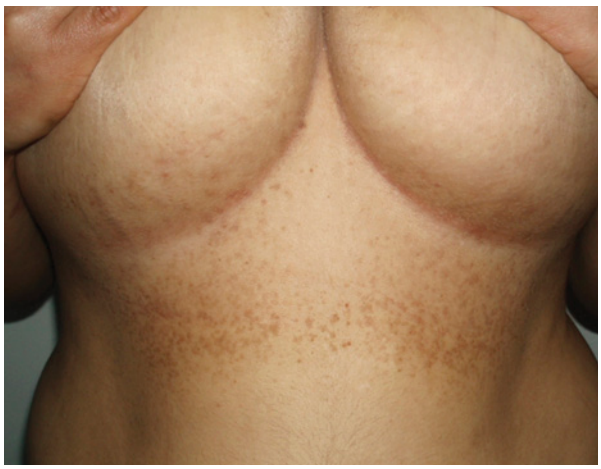
Figure 2. Suprabasal clefting with acantholysis, and few foci resembling to a "dilapidated brick wall."



CASE REPORT 2

The second report concerned the first patient's daughter, a 25-year-old with no past medical history, who presented with itching papules of skin folds. Informed consent was obtained from her. Cutaneous examination revealed greasy brown-colored and keratotic papules of 1-3 mm in diameter, occupying the axillary and infra-mammary folds (Figure 3). These lesions had begun 5 years ago and remained unchanged since that time, except for a slight exacerbation by heat, sweating, or friction. Cutaneous examination was otherwise normal; with no mucosal or nail abnormalities. The histopathological examination of a cutaneous biopsy of one of the keratotic lesions revealed suprabasal clefts of the epidermis with acantholysis. There were also hyperkeratosis and focal dyskeratosis (premature cornification with detached 'corps ronds') (Figure 4A, Figure 4B).

Figure 3. Keratotic brown-colored papules in the infra-mammary folds



The patient was treated with topical retinoid, which led to a partial clearance.

In view of the clinical and pathological findings in the mother and daughter, a diagnosis of DD was made in both patients. Bullous DD of the flexural areas was diagnosed in the mother.

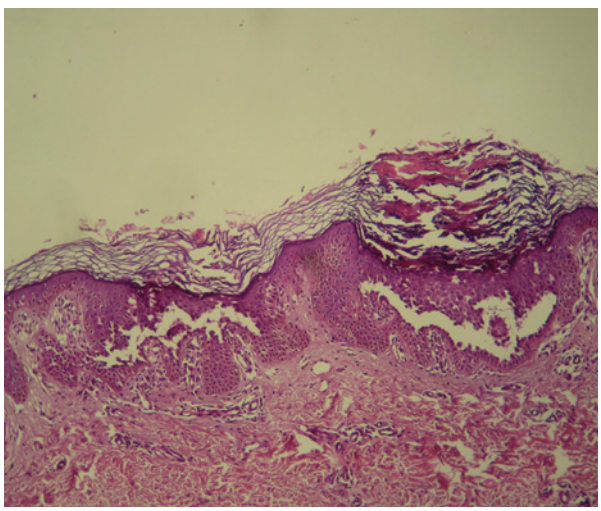
DISCUSSION

In bullous DD the clinical and histopathological findings are often suggestive of HHD. DD and HHD are both autosomal dominant calcium adenosine triphosphate synthase (ATPase) disorders. Even though they share some clinical and histopathological features, they correspond to two genetically distinct entities, and the presence of the two disorders in the same family seems to be unlikely. The authors believe that the previous reports of patients described as having both DD and HHD were probably cases of DD with flexural involvement.[7,8]

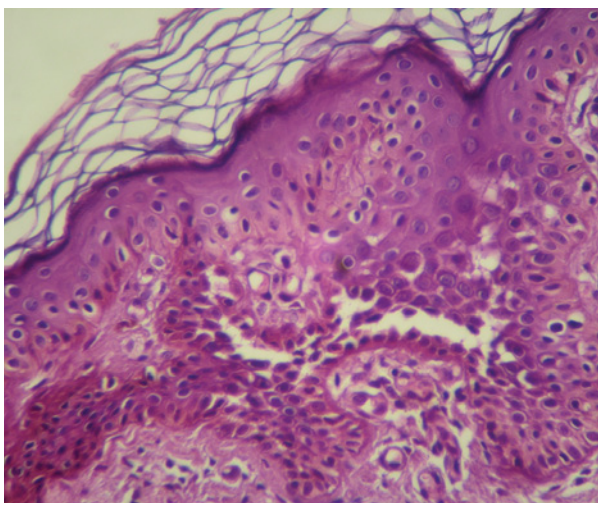
DD often begins in childhood before the age of twenty, and lesions develop slowly and remain static with no permanent clearance.[9] In HHD, lesions, however, develop rapidly and may disappear entirely, leaving no residual lesions, except for temporary pigmentation.[10] Histologically, acantholytic suprabasal clefts can be seen in both disorders, but in HHD, acantholysis is usually incomplete, causing the well known "dilapidated brick wall" appearance of the lower epidermis. Moreover, predominant dyskeratotic keratinocytes in DD can be a distinctive histological feature between these two genodermatoses.[11] The bullous variant of DD is characterized by histological overlap with HHD, given the presence of extended

Figure 4. Suprabasal clefts with acantholysis, hyperkeratosis and focal dyskeratosis.

A.



B.



acantholysis with foci of "dilapidated brick wall" appearance and few dyskeratotic cells, as shown in our first presented patient, who also has a striking clinical resemblance with HHD. Our first patient had a late onset-flexural involvement with a relapsing course of the vesicles, leading to eroded surface, covered by parallel rhagades. All of these signs together with the presence of foci of '"dilapidated brick wall" and the lack of profound dyskeratosis were in favor of HHD. However, this diagnosis was corrected by examining the daughter who presented with typical clinical and histological features of DD. The correlation of clinical and histopathological features in the mother and the daughter led to the diagnosis of bullous DD in the mother.

The clinical and histopathological findings suggestive of HHD in cases of bullous DD have been previously reported.[7,8] The current therapeutic alternatives for DD are based on keratolytic drugs, topical antimicrobials for infections, topical retinoids to reduce hyperkeratosis, and oral retinoids for severe cases, with variable clinical responses.[12] In bullous DD, management should be different from that of the classic form and should take into account the risk of aggravation of macerated lesions by classic topical and systemic treatments. Our first patient with bullous DD demonstrated a complete clearance of erosions under topical antimicrobials. The second patient was treated with topical retinoid with only a partial improvement.

CONCLUSION

The diagnosis of vesiculo-bullous DD is difficult in view of the histological and clinical overlap with HHD. Subtle clinical and histological analysis may aid correct diagnosis and in doubt, molecular diagnosis is mandatory.

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All authors declare they have no conflicts of interest. Dr. Goucha is the guarantor for this article, and takes responsibility for the integrity of the work as a whole. There is no other person who contributed to the manuscript, other than the authors named.

REFERENCES

1. Kakar B, Kabir S, Garg VK, Bhushan P. A case of bullous Darier's disease histologically mimicking Hailey-Hailey disease. Dermatol Online J. 2007;13:28.

2. Pels IR, Goodman MH. Criteria for the histologic diagnosis of keratosis follicularis (Darier). Report of a case with vesiculation. Arch Dermat & Syph. 1939;39:438.

3. Sánchez-Salas MP, Latasa de Aranibar FJ, Oncíns Torres R, Gambó Grasa P. Bullous-hemorrhagic Darier's disease. Skinmed. 2011;9:65-6.

4. Ellis FA. Vesicular Darier's (so called Benign Familial Pemphigus): a variant of Darier disease. Arch Dermatol. 1950;61:715-736.

5. Hori Y, Tsuru N, Niimura M. Bullous Darier disease. Arch Dermatol. 1982; 118:278-279.

6. Telfer NR, Burge SM, Ryan TJ. Vesiculo-bullous Darier's disease. Br J Dermatol. 1990;122:831-834.

7. Nicolis G, Tosca A, Marouli D, Stratigos J. Keratosis follicularis and familial benign chronic pemphigus in the same patient. Dermatologica. 1979;159:346-51.

8. Ganor S, Sagher F. Keratosis follicularis (Darier) and Familial Benign Chronic Pemphigus (Hailey-Hailey) in the same patient. Br J Dermatol. 1965;77:24-29.

9. Buteica E, Burada F, Stoicescu I, Stanoiu B, Georgescu CV. Darier disease and Hailey–Hailey

disease. Romanian Journal of Morphology and Embryology. 2007;48:423-426.

10. Burge SM. Hailey-Hailey disease: the clinical features, response to treatment and prognosis. Br J Dermatol. 1992;126:275-282.

11. Hamm M, Metze D, Bröcker EB. Hailey–Hailey disease. Eradication by dermabrasion. Arch Dermatol. 1994; 130:1143–1149.

12. Laurence Hulatt BA, Susan Burge DM. Darier's disease: hopes and challenges. J R Soc Med. 2003;96:439-441.