

Case Report

Hailey-Hailey Disease With Vulvar Involvement

Jorge Lopez Olmos¹

1. Centro de Especialidades de Valencia Monteolivete, Spain

Objective: To present a rare case of Hailey-Hailey disease in a 45-year-old, nulligravida woman, who consulted for premenopausal hot flashes.

Methods: The patient was examined for vulvar lesions, and her medical and family history were assessed. Clinical findings included typical lesions consistent with Hailey-Hailey disease.

Results: The patient had typical vulvar lesions that were exudative, erythematous-squamous, with vesicles, pustules, and erosions. These lesions were residual from a previous outbreak that had affected her entire body several months earlier. The patient has a family history of Hailey-Hailey disease.

Conclusion: Hailey-Hailey disease should be considered as a differential diagnosis in women presenting with vulvar symptoms, especially those with a family history of the condition. The patient is not currently receiving corticosteroid treatment.

Corresponding author: Jorge Lopez-Olmos, jlopezo@sego.es

Introduction

Hailey-Hailey disease is a rare dermatosis. The Hailey brothers, in 1939, called it benign familial chronic pemphigus [1]. It is a vesiculobullous disease with flaccid blisters in intertriginous areas: neck, armpits, inframammary region, and groin. With an erythematous base, there are vesicles that become pustules and erosions in the folds and perianal area. There is exudation, and it is recurrent [2].

It is an autosomal dominant hereditary disease, with a mutation in the ATP2C1 gene (3q21–q24) of the calcium pump [3][4], and there is a defect in the adhesion of keratinocytes. This gene controls Ca concentrations in the cytoplasm and Golgi apparatus of keratinocytes [2].

Not all cases have a positive family history ^[3]. Lesions occur in the 2nd to 4th decades of life, in the folds and genital area. Moist, red plaques with fissures and erosions; also pustules and vesicles. Since adolescence, there are remissions and recurrences ^[5]. Lesions are painful and pruritic; they are exacerbated by heat and friction. Bacterial and fungal colonization causes erosions ^[2]. There may be superinfection.

There is extensive intraepidermal acantholysis with the typical image of a crumbling brick wall ^[3]. Immunofluorescence is negative.

Diagnosis is based on family history and biopsy. Differential diagnosis ^{[2][3]}: Darier's disease, macerated eczema, psoriasis, tinea cruris, candidiasis, herpes, etc.

Treatment involves avoiding friction and using mild emollients. To treat infection: topical antibiotics such as clindamycin, erythromycin; or oral antibiotics such as doxycycline, clindamycin; and antifungals. Topical corticosteroids of class III, topical tacrolimus. Oral corticosteroids, cyclosporine, dapsone, methotrexate, fluorouracil, CO2 laser, dermabrasion, photodynamic therapy, superficial radiotherapy, and even surgical treatment with skin excision and grafts have also been used ^{[4][5]}.

It is a treatment-refractory disease ^[1]. The patient will have lesions for the rest of their life, with flares lasting weeks to months. It worsens in the summer and does not improve with age ^[2].

In this paper, we present a case of Hailey-Hailey disease, due to its rarity, showing the typical lesions of vulvar involvement.

Clinical Case

A 45-year-old woman, nulligravida, with a personal history of appendectomy, was diagnosed with benign familial chronic pemphigus (Hailey-Hailey disease). She consulted on 12/4/17 due to hot flashes and for a check-up. She had used the contraceptive patch until August 2017.

On examination, she had Hailey-Hailey disease involvement all over her body, including the vulva and groin (figures 1 to 4). She had experienced a flare-up the previous summer and took oral corticosteroids.

Cervicovaginal cytology and transvaginal ultrasound were normal. General blood tests and hormonal determinations were requested. The results were: TSH = 3.48 mIU/ml; FSH = 34.1 mIU/ml; LH = 19.3 mIU/ml; E2 = 42 pg/ml; PRL = 9 ng/ml; and Cortisol = 14.6 µg/dl.

In her family, her father, a paternal uncle, and a paternal aunt had the disease. In her case, the onset was at age 24. To date, she has had 4 flare-ups over the years, affecting her entire body. The last one, the past summer, coincided with higher stress and was the worst. She received oral corticosteroid treatment. Now that it has passed, she is not on any treatment.

She consulted us for menstrual disorders typical of perimenopause, as confirmed by hormone levels.

The lesions she presented, on the vulva, inner thighs, and buttocks, were erythematous-squamous plaques (figures 1 and 2), with vesicles and crusts (figure 3), and exudative lesions and erosions on the labia majora (figure 4).



Figure 1. Vulvar involvement, inner thighs, and buttocks.



Figure 2. At higher magnification, erythematous-scaly plaques and pustules are seen.



Figure 3. Exudative, erythematous-crusted lesions.



Figure 4. Exudative plaque on the right labia majora, with erosions.

Comments

Hailey-Hailey disease in our patient began at the age of 24, with a family history in her father, paternal uncle, and paternal aunt. Over the years, she has had 4 flare-ups, the last one being the worst, in the previous summer, related to increased stress. When she consulted us for premenopausal hot flashes, she was no longer on corticosteroid treatment and had residual lesions with vulvar involvement, on the thighs and buttocks.

Hailey-Hailey disease in the vulva can mimic other lesions ^[6], such as candidiasis or herpes simplex. For diagnosis, the patient's history with family history, visual examination of the lesions, and biopsy are required. Exclusive vulvar involvement is very rare.

Hailey-Hailey disease can coexist with syringomas ^[7], which are adenomas of the eccrine glands. It can present as vulvar leukoplakia ^[8], with vulvar pruritus. It can be masked by candidiasis ^[9]. If antifungal

treatment for presumed candidiasis fails, a biopsy should be performed for diagnosis. There may be condylomatous vulvar forms of Hailey-Hailey disease ^[10] that appear lichenified.

Squamous cell carcinoma of the vulva can develop on top of Hailey-Hailey disease ^[11] in a 61-year-old woman with lesions 14 years earlier; ^[12] in a 51-year-old woman with lesions 5 years earlier; without response to treatments, and with loss of follow-up. This disease requires monitoring and surveillance to prevent the development of cancer on top of another dermatological lesion.

Statements and Declarations

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Potential Competing Interests

The authors declare that they have no conflicts of interest.

Ethics

This study complied with ethical standards and was approved by the Comité de Bioética Asistencial (CBA) of Hospital Universitario Doctor Peset. The images included in this article were published with the informed consent of the patient. Ethical approval was obtained in accordance with institutional guidelines.

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Declarations

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