underlying disease is present, its treatment can lead to improvement or even resolution of the PR lesions. To our knowledge, this is the first reported case of PR associated with hyperprolactinemia, and we therefore consider its publication important. The finding of this dermatosis should always alert the physician to the possibility of malignancy, systemic diseases, or hormonal disorders.

Conflicts of Interest
The authors declare that they have no conflicts of interest.

References

V. Pinós-León, a,b,∗ M. Núñez, a,b M. Salazar, a,b V. Solís-Bowen a,b

a Servicio de Dermatología, Hospital San Francisco de Quito, Instituto Ecuatoriano de Seguridad Social, Quito, Ecuador
b Universidad Central del Ecuador, Quito, Ecuador

∗Corresponding author.
E-mail addresses: vh_neo@msn.com, vhpinosmd@gmail.com (V. Pinós-León).

Good Response to Doxycycline in Hailey-Hailey Disease

Enfermedad de Hailey-Hailey, adecuada respuesta a doxiciclina

To the Editor:

Hailey-Hailey disease (HHD) or familial benign chronic pemphigus is a rare skin disorder characterized clinically by vesicles and erosions in the intertriginous areas, mainly the axillae and groin.1–4 The site of the lesions, the pain, and sometimes their smell have a marked impact on patients’ quality of life; this has led to the use of numerous medical and surgical treatments, with variable degrees of success. We present a patient with long-standing, extensive HHD who presented an excellent response to doxycycline.

A 60-year-old man with no past history of interest was referred from another health area for a recurrent dermatosis that had arisen 20 years earlier and affected the skin folds. He presented crusted, exudative, erosive-vesicular lesions in the skin folds, particularly the axillary and inguinal folds (Fig. 1), the cubital fossa, neck, and perineum. The lesions were pruritic and painful and became worse during the summer and with exercise. He had previously been treated with corticosteroids and topical antibiotics with little improvement. The patient reported no family history of skin disease, though the youngest of his 4 offspring (2 women and 2 men) presented similar but milder lesions on the neck and in the axillas. Biopsy confirmed the diagnosis of HHD (Fig. 2). Direct immunofluorescence was negative. Routine blood tests were normal and antinuclear antibodies and indirect immunofluorescence for anti-intercellular cement substance and antibasement membrane zone antibodies were negative.

Treatment was prescribed with doxycycline at a dose of 100 mg/d. This was very well tolerated and led to a rapid improvement that was maintained throughout the summer months. The dose was then reduced to 50 mg/d. After 16 months of follow-up on the same dose, the patient remained asymptomatic (Fig. 3).

HHD is a rare chronic genodermatosis of autosomal dominant inheritance. It is caused by mutations in the ATP2C1 gene on chromosome 3q21-24. Mutations of this gene, which codes for the secretory pathway Ca++/Mn++-ATPase (SPCA1) of the Golgi apparatus, cause changes in calcium-dependent intracellular signals, producing a loss of cell adhesion in the epidermis, leading to acantholysis.1–3 The exact mechanism of the changes remains unclear.2,3

HHD has been treated with varying degrees of success using a variety of treatments aimed at mitigating the inflammation or reducing the triggering factors; treatments reported in the literature include topical and systemic corticosteroids, topical antibiotics, oral retinoids, immunosuppressants such as cyclosporin and methotrexate, dapsone, botulinum toxin, oral glycyrrholate, dermabrasion, various lasers, and photodynamic therapy.5

Tetracycline, doxycycline, and minocycline have been used with success in dermatology, exploiting their nonantimicrobial effects as anti-inflammatory agents (inhibition of leucocyte chemotaxis and activation and regulation of
Figure 1  A and B, Erosive, erythematous plaques in the axillary and inguinal skin folds.

Figure 2  Suprabasal acantholysis with a dilapidated brick wall appearance. Hematoxylin and eosin (H&E), original magnification ×20). Inset: detail of the acantholysis; H&E, original magnification ×40.

Figure 3  A and B, Complete resolution of the lesions in the axillary and inguinal skin folds 16 months after initiating treatment with doxycycline.
inflammatory cytokines in keratinocytes) and their anti-
collagenase activity via inhibition of the dermal matrix
metalloproteinases. Metalloproteinase 9 and its inhibitor
have been implicated in HHD and in Darier disease.7,8
The recent publication of 6 cases of HHD with a dramatic
response to doxycycline,7 with ease of access and manage-
ment, low cost, and few side effects, led us to use this
drug. The treatment achieved an excellent response never
before experienced by our patient either spontaneously or
with other topical treatments (dermal corticosteroids and
fusidic acid).

Conflicts of Interest
The authors declare that they have no conflicts of interest.

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case and research letters

Importance of educational sessions on cardiometabolic comorbidities. Awareness among psoriasis patients

Importancia de las sesiones educativas sobre comorbididades cardiometabólicas. Conciencia entre los pacientes con psoriasis

Dear Editor:
There is strong evidence that psoriasis is associated with sev-
eral cardiometabolic comorbidities, and that patients with
psoriasis are at a higher risk of cardiovascular morbidity and
mortality.1,5 Understanding this is of crucial importance, not
only for physicians but also for patients, as it can impact
prognosis and patient quality of life.4
It has been shown that few patients with moderate
to severe psoriasis are aware of their increased risk of
atherothrombotic disease and metabolic syndrome.5 Edu-
cational sessions are a recognized tool for informing and
helping patients to understand the nature and course of their
disease and the different treatments available, and can also
help them to develop coping strategies.6,7
We performed an observational study to evaluate the
impact of an educational session designed to promote knowl-
dge among patients with psoriasis about their disease,
lifestyle changes, and management of cardiometabolic
comorbidities.
The educational session was held in the psoriasis unit
of a Portuguese tertiary hospital. Briefly, it consisted of
several oral presentations (30 min each) explaining the
nature of psoriasis, introducing the various treatment
options, exploring the association between psoriasis and
cardiometabolic comorbidities/cardiovascular disease, and
underlining the importance of monitoring and treating
these. A questionnaire was created for the patients to com-
plete before, immediately after, and 6 months after the
session. The questionnaire included demographic informa-
tion, questions regarding the association between psoriasis
and cardiometabolic comorbidities/cardiovascular disease,
and assessment of lifestyle and comorbidity management.
Seventy patients participated in the session and 53 com-
pleted all 3 questionnaires correctly. The demographic data,
characteristics of disease, and treatments received are pre-
sented in Table 1. Regarding cardiometabolic comorbidities,35.8%, 13.2%, and 35.8% of patients had a respective
diagnosis of hypertension, diabetes mellitus, and dyslipidemia;
20.8% were obese (body mass index > 30); and 18.9% were
active smokers (Table 1). The McNemar test was used to assess significant improve-
ments in knowledge between the different time points. A
P value of less than or equal to .05 was considered sta-
tistically significant. A significant increase was observed in
the percentage of correctly answered questions about the
association between psoriasis and cardiometabolic comor-
bidities/cardiovascular disease on comparing the answers

M.Á. Flores-Terry,* M.P. Cortina-de la Calle,
M. López-Nieto, R. Cruz-Conde de Boom
Servicio de Dermatología, Hospital General Universitario
de Ciudad Real, Ciudad Real, Spain

*Corresponding author.
E-mail address: miguelterry85@hotmail.com
(M.Á. Flores-Terry).