

Hailey-Hailey Disease Successfully Treated with Low-Dose Naltrexone

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Introduction

- Hailey-Hailey disease (HHD) is an uncommon autosomal dominant disorder resulting from a mutation in the ATP2C1 gene resulting in dysfunction of the Golgi apparatus calcium-associated ATPase, thus interfering with intercellular calcium signaling.
- HHD presents clinically as flaccid blisters and erosions in intertriginous areas, especially the axillae and groin.
- The major histologic finding is acantholysis throughout the spinous layer of the epidermis, commonly referred to as a "dilapidated brick wall" appearance.
- The initial lesions and associated symptoms usually develop during the second or third decade of life.
- Complications of HHD include infections (bacterial, fungal, and viral), and malignant transformation (cutaneous squamous cell carcinoma).

Case

- A 56-year-old female presented to clinic with a worsening rash located on her upper arms, inguinal region, and lower back (figures 1-2). The rash first began in her early 30's. She admitted to a similar rash in family members. The rash was made worse by mechanical trauma and heat. She described the rash as burning in quality. The rash had also been present in her axilla in the past.
- Physical exam revealed erythematous, macerated, crusted plaques located on the upper arm, inguinal region, and lower back. The erosions had a "worm-eaten" pattern.
- Shave biopsy was performed on lesions revealing widespread acantholysis of the epidermis and minimal dyskeratosis. Foci of dermal papillae are lined by a single layer of basal cells that protrudes into the blister cavity as "villi" (Figure 3-4).
- Over the course of several months, the patient was treated with multiple therapies including high potency topical corticosteroids, oral therapy with doxycycline, and two intramuscular injections of 40 mg/ml triamcinolone acetonide.
- Due to the progressively worsening and recalcitrant nature of the disease, the patient was started on 3 mg/day of oral naltrexone.

Figures

Figure 1



Figure 2



Figure 3

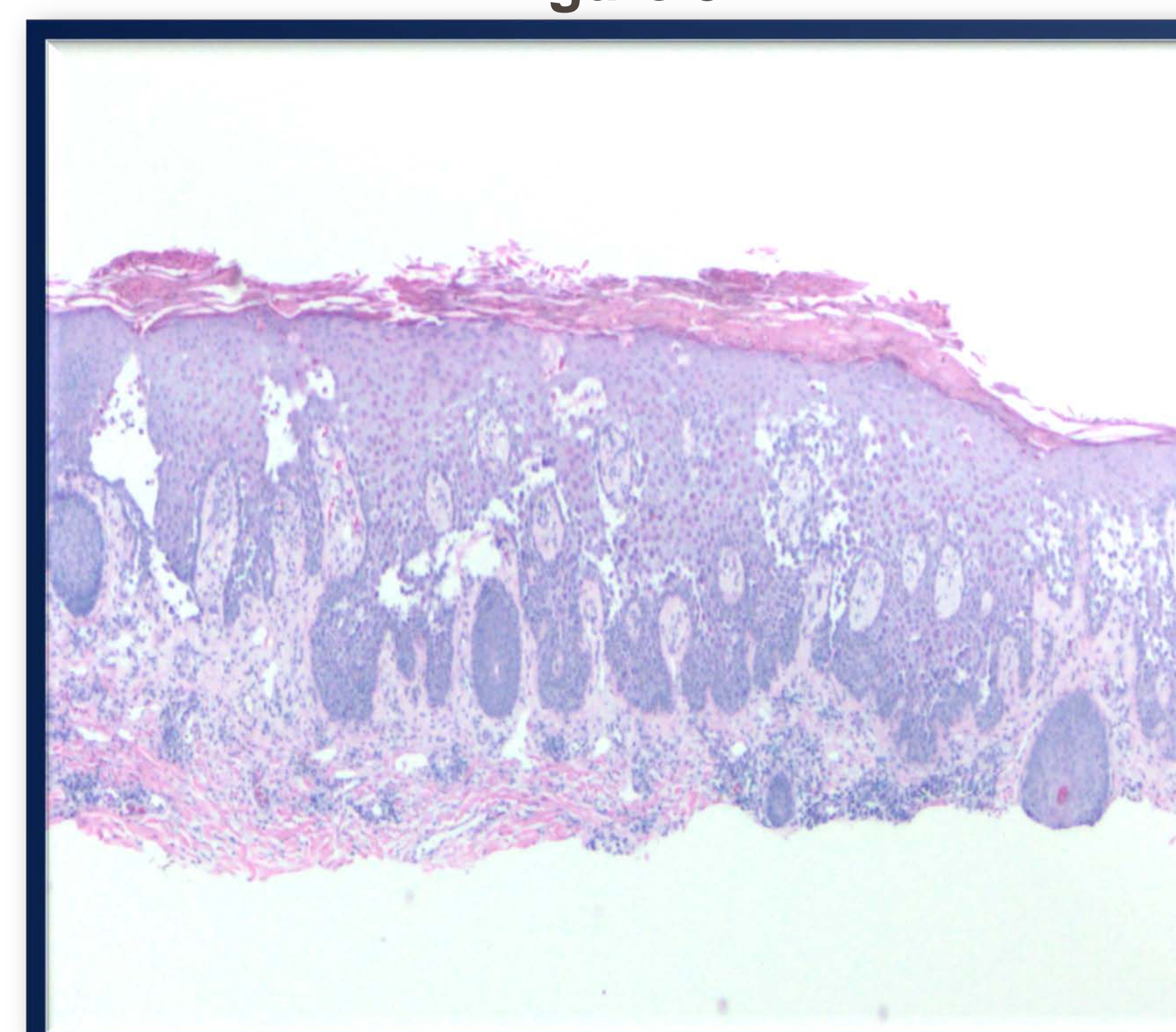


Figure 4

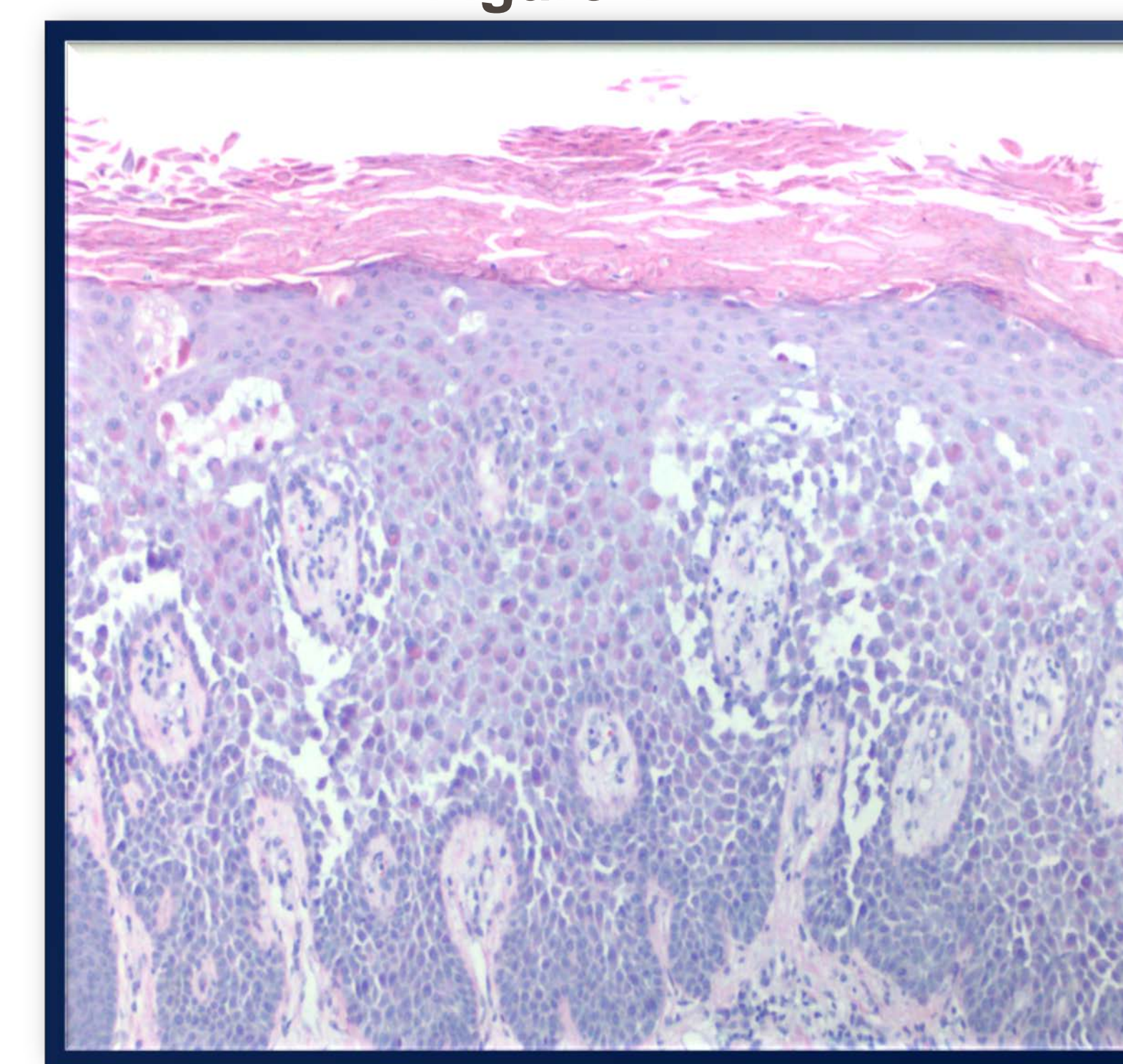


Figure 5



Figure 6



Results

- After 3 months of treatment on 3 mg daily of naltrexone, the patient had almost complete resolution of active lesions on her upper arms, inguinal region, and lower back (Figures 5-6). The remaining skin changes represent post-inflammatory hyperpigmentation.

Discussion

- Treatment is challenging, and there is no one specific therapy.
- Multiple treatment modalities are typically attempted including topical, systemic, and surgical therapies.
- Wearing lightweight clothing is recommended to prevent friction and sweating which can lead to worsening symptoms.
- Colonization and secondary infections (bacterial, fungal, or viral) should be treated with appropriate therapy.
- Topical and intralesional steroids are used to reduce inflammation and halt the development of new lesions.
- Systemic therapies include long term continuous or intermittent doxycycline, acitretin, isotretinoin, methotrexate, cyclosporine, and intramuscular/oral corticosteroids.
- Surgical options include dermabrasion, resurfacing CO2 laser, wide excision followed by grafting, and photodynamic therapy.
- Botulinum toxin injected can decrease sweating in affected area.
- Low-dose naltrexone is a relatively new and efficacious systemic therapy for the treatment of recalcitrant HHD.
- Only small case series have been completed revealing the effectiveness of low-dose naltrexone for HHD.

Conclusion

- This novel case demonstrates recalcitrant HHD successfully treated with the low-dose naltrexone (3 mg/day) after 3 months. This case supports other newly published literature supporting low-dose naltrexone as a potential treatment of resistant HHD.

References

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