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DERMATOLOGIC THERAPY WILEY

LETTER

Acrodermatitis continua of Hallopeau successfully treated with ixekizumab: A case report

Dear Editor,

Acrodermatitis continua of Hallopeau (ACH) is a rare variant of pustular psoriasis characterized by sterile pustules that primarily involves the digits.[1] Pathogenesis is not fully understood, but in some patients, mutations in the IL36RN gene have been found.[2] Chronic inflammation of periungual areas can lead to onychodystrophy and anonychia, along with arthritic joint involvement.[3] The diagnosis is based on clinical and histopathological examination. Gram stain, culture and potassium hydroxide preparation should be performed to rule out bacterial infection, candidiasis and dermatophytosis.[4] Due to the rarity of this condition, no standardized guidelines exist.[5] When conventional therapies, such as acitretin, methotrexate or cyclosporine are contraindicated or fail, monoclonal antibodies can be used as a valid alternative.[5] We report a case of an ACH successfully treated with ixekizumab, a humanized IgG4 monoclonal antibody against IL-17A.

A 72-year-old male patient referred to our outpatients because of a 2 years' history of painful erythema and oedema at his right index finger. Dermatological examination showed erythema, oedema, desquamation and coalescent pustules of the nail fold and fingertip, with concomitant onychodystrophy (Figure 1A, B). Previous treatment included topical and systemic antibiotics without any clinical benefits. Family history was positive for psoriasis. Microbiological swab and microscopic examination of clinical samples were performed to rule out the presence of a bacterial or fungal infection. Laboratory tests were normal, except for a latent HBV infection. Histological findings revealed intra-epidermal pustules characterized by the presence of neutrophils and a lymphohistiocitic infiltrate associated with mild oedema and tortuous vessels in the dermis. Small joints ultrasound of the hands showed enthesitis, consistent with psoriatic arthritis. Based on the clinical and histological features, ACH was diagnosed. Given the latent HBV infection, methotrexate was contraindicated and, foreseeing a treatment with ixekizumab, the patient started a prophylaxis with lamivudine. Ixekizumab was started at the initial dose of 160 mg, followed by a regimen of 80 mg boosters every 2 weeks for 3 months. Pain and edema disappeared at 4-week evaluation and no pustules and erythema occurred after 8 weeks, with an improvement of onychodystrophy. After 7 months, the lesions were completely healed, revealing a melanonychia already reported by the patient and confirmed by dermoscopy, which showed the presence of a light brown background with brown, regular, parallel lines (Figure 1C, D). The patient did not experience any adverse event, no ACH flares-up occurred and the treatment is still ongoing.

There are no standardized guidelines for ACH management due to its low prevalence and poor response to conventional treatments. Biological therapies play a key role in the treatment of psoriasis and are a valid option also for pustular variants, included ACH. The therapeutic approach must be individualized, according to patient's clinical characteristics and comorbidities. In our case ixekizumab was administered for several reasons: the safety profile of anti-IL17a in patients with latent HBV infection,[6] the rapid onset of action[7] and the opportunity to treat concomitant joint symptoms, which are often associated with pustular variants.[3]

In literature there are cases of ACH successfully treated with other anti-IL17 monoclonal antibodies.[8] However, only few cases of ACH treated with ixekizumab have been reported, with conflicting results.[9,10] In our patient, ixekizumab allowed a rapid remission of cutaneous symptoms resulting in a consistent improved quality of life, due to the disease related impairment of a critical functional localization, such as the hands. Joint manifestations also benefited from the therapy, as confirmed by the ultrasound evaluation after 3 months of treatment, showing a significant reduction of synovial inflammation.

This is the first case in which ixekizumab guaranteed the complete resolution of both skin and joint symptoms. Further studies are needed to establish the exact role of ixekizumab in the management of ACH.

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CONFLICTS OF INTEREST

The authors have no conflicts of interest to declare.

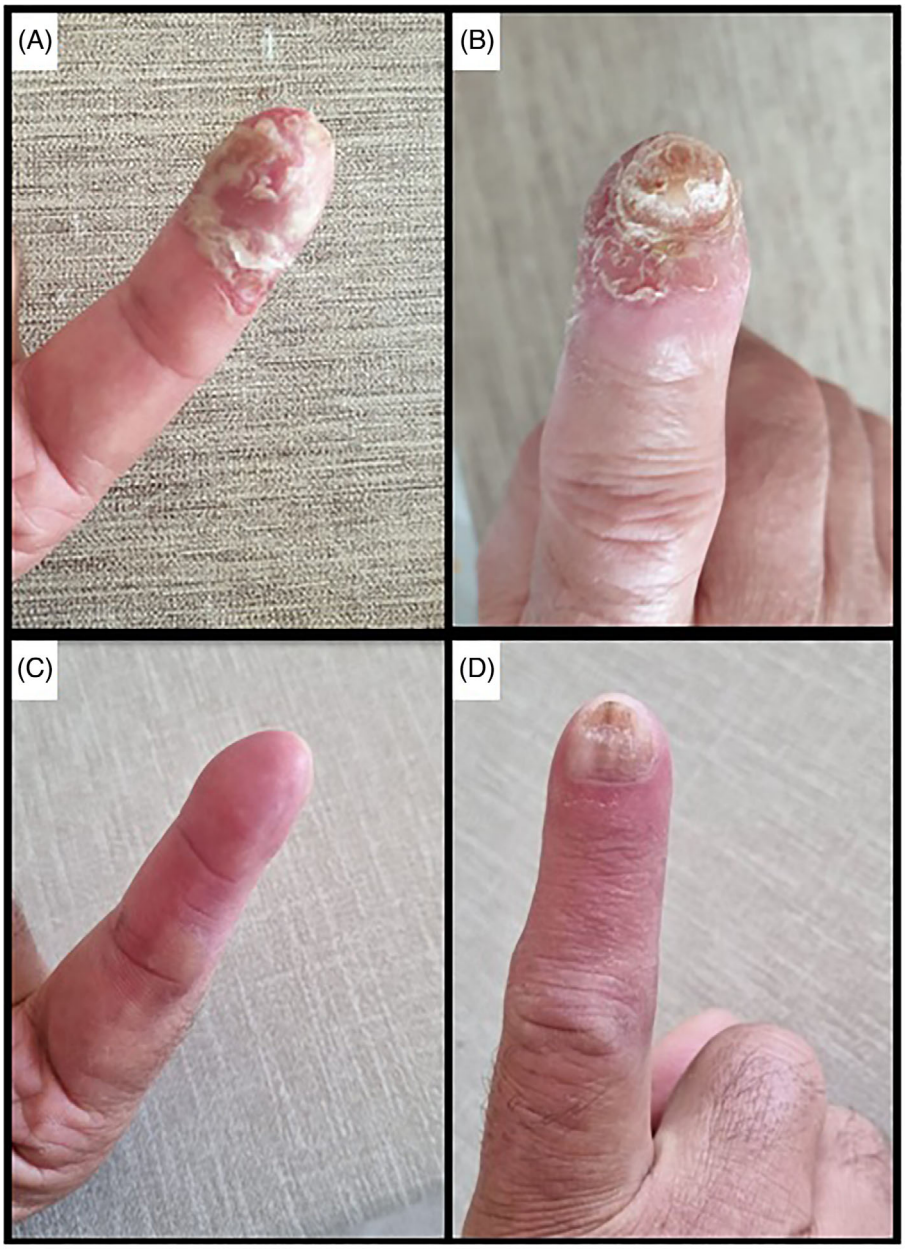

FIGURE 1 (A), (B), Erythema, oedema, desquamation and coalescent pustules of the nail fold and fingertip, with concomitant onychodystrophy. (C), (D), Complete healing of lesions with melanonychia, already reported by the patient, after 7 months of ixekizumab treatment

AUTHOR CONTRIBUTIONS

Teresa Battista conceived the work. Gianluca Guerrasio and Gaia De Fata Salvatores wrote the manuscript and acquired data. Tiziana Peduto wrote the manuscript and revised it critically. Gabriella Fabbrocini approved the version to be published. Adriana Di Guida drafted the work and ensured the accuracy of any part of it.

ETHICS STATEMENT

A written informed consent was obtained from the patient for the publication of this case report and accompanying images. The authors have no ethical conflicts to disclose.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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