Dermatology Practical & Conceptual

Efficacy of Bimekizumab in the Management of Refractory Erythrodermic Pityriasis Rubra Pilaris: Clinical Insights

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Introduction

Erythroderma refers to widespread skin reddening caused by inflammatory dermatoses, with pityriasis rubra pilaris (PRP) being a notable cause. While PRP can sometimes resolve spontaneously, erythroderma requires prompt treatment, often posing a challenge. Traditional therapies like corticosteroids, retinoids, immunosuppressants, and phototherapy have shown limited efficacy [1]. Though no biologics are officially approved for PRP, IL-17, IL-12/23, and IL-23 inhibitors are increasingly used [1-3]. Elevated IL-17A and IL-17F levels in PRP suggest bimekizumab, a biologic targeting both, as a promising option [4]. We herein present a case demonstrating its potential effectiveness in PRP management.

Case Presentation

A 42-year-old white male presented with widespread erythema that had begun three months earlier as fine scaling and redness on the scalp. He reported mild pruritus, without fever or other systemic symptoms. His medical history was unremarkable, and there was no family history of skin diseases. Physical examination revealed a pink-red-to-salmon-colored erythroderma with a fine epidermal scale, which was thicker and more adherent on the face and scalp. The involved skin was sharply demarcated from the adjacent uninvolved skin, creating "islands of sparing," a hallmark of PRP (Figure 1). Moderate palmoplantar keratoderma was noted, without onychodystrophy, lymphadenopathy, or organomegaly. A prior dermatology consultation, including a skin biopsy, had led to treatment with topical corticosteroids and emollients, with no improvement. Laboratory workup, including CBC, CRP, ESR, and tests for hepatitis B, C, and HIV, was unremarkable. Lupus erythematosus was excluded by normal complement levels and negative ANA and anti-dsDNA tests. Flow cytometry was performed to rule out cutaneous lymphomas. To control the erythroderma the patient was initially administered methylprednisolone 60 mg

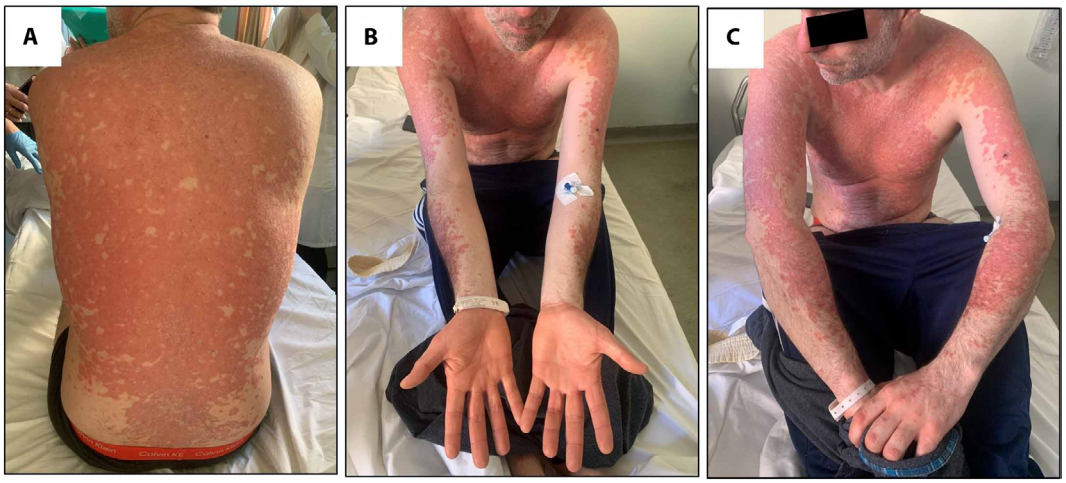

Figure 1. A 42-year-old male with (A-C) pink-to-salmon-colored erythroderma with distinct "islands of sparing" and (B) moderate orange-waxy palmoplantar keratoderma.

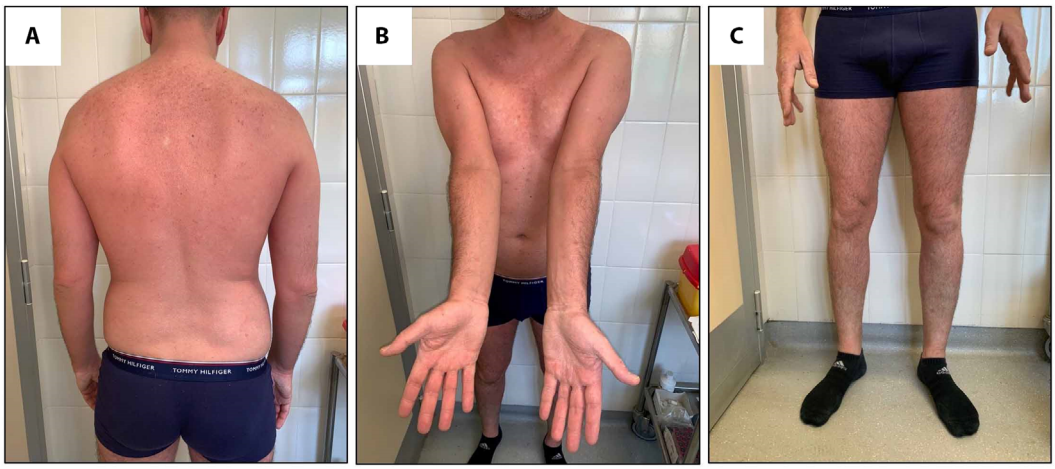

Figure 2. The same patient five weeks after starting bimekizumab. (A-C) Near-complete remission of the skin rash is evident.

daily (0.75 mg/kg twice a day). Skin histopathology revealed hyperkeratosis, parakeratosis, mild epidermal hyperplasia, spongiosis, and lymphocytic infiltration in the perivascular and upper dermis; findings consistent with PRP.

After 10 days of corticosteroids with no improvement, acitretin 30 mg/day was initiated but proved ineffective after one month. It was replaced with subcutaneous methotrexate 15 mg/week and folic acid 5 mg/week. Despite two months of methotrexate therapy, the patient showed no significant skin improvement. At this stage, it was decided to switch from conventional treatments to biologic therapy. With informed consent, bimekizumab was administered at the psoriasis-approved dose (320 mg subcutaneously at weeks 0, 4, 8, 12, and 16, then every eight weeks). Remarkably, near-complete remission of the skin rash was observed after just two doses at weeks 0 and 4 (Figure 2), while complete remission was achieved by the 4th dose. The patient has been on treatment for 11 months, with no signs of recurrence to date.

Conclusion

Although biologic agents are not officially indicated for PRP, they are increasingly used in severe, refractory cases, with evidence supporting the efficacy of IL-17A antagonists [3]. Bimekizumab, a newly approved biologic targeting IL-17A and IL-17F, is highly effective in psoriasis. To date, two published cases have reported successful PRP treatment with bimekizumab [5,6]. Unlike these cases, where longer disease duration may have influenced outcomes, our patient had a shorter disease course and achieved near-complete remission after just two doses. While evidence suggests PRP responds variably to biologics, further studies are needed to assess bimekizumab efficacy and identify the optimal biologic treatment for PRP [1-6].

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