

Treatment of Hand Dermatitis with Alefacept

To the Editor:

CD45RO⁺ memory T cells play a specific and decisive role in the pathogenesis and exacerbation of ACD.¹

Alefacept (Amevive, formerly from Biogen-Idec, San Diego, CA but now from Astellas Pharma, Inc., Deerfield, FL) consists of the extracellular CD2-binding portion of leukocyte function-associated molecule 3 (LFA-3) linked to the Fc portion of immunoglobulin G1 (IgG1). It targets CD45RO⁺ cells.² A 60% response rate of psoriasis was noted to 16 weeks of alefacept. Psoriasis continued to improve at least through week 24 (8 weeks beyond the end of the drug course).³ This suggested to us that 16 weeks of alefacept might cause profound and persistent loss of CD45RO⁺ cell lines; 15 mg administered intramuscularly once weekly for 16 weeks appears to have a similar safety profile to the 12-week regimen.³

A 60-year-old man presented with a red, indurated, and partly scaly rash involving the entirety of both palms (Fig 1), the dorsal aspects of the distal phalanges, and areas of the groin, legs, and feet. Onset of disease was 5 months before presentation. A few nail pits were noted. Initial diagnosis was psoriasis. Over 5 months of follow-up, however, the rash failed to respond to topical tazarotene, topical tacrolimus, betamethasone dipropionate ointment, calcipotriene ointment, intralesional triamcinolone (3 mg/mL), topical pimecrolimus cream, topical terbinafine cream, topical ammonium lactate, diflorasone ointment, halbetasol cream, and 30 treatments of narrow-band ultraviolet B. A biopsy specimen taken from his palm showed spongiotic dermatitis with exocytosis. Patch testing was performed with a 20-allergen enhancement of the North American Contact Dermatitis Group 45-allergen screening series (Dormer Laboratories, Rexdale, Ontario, Canada). Patch-test readings at 72 hours post patch application, 24 hours post removal, revealed papules within the circle defined by the patched area, covering over 50% but not completely filling it (+ reaction), from p-paraphenylenediamine (PPD), colophony (+), and mer-

captobenzothiazole (MBT) (+). Fragrance mix and potassium dichromate patches showed only a few papules covering less than 50% of the patched area (doubtful reactions). He was counseled and was given materials designed to help him to avoid colophony, PPD, rubber, and fragrance. During empiric treatments and later during alefacept, however, the patient frequently played golf.

The optimal clinical approach to establishing relevance is patch testing with real-world materials. It was not attempted. The opportunity to help this gentleman in a different way presented itself with alefacept donated by Biogen-Idec for nonspecified use. After informed consent, 16 weekly intramuscular injections of 15 mg of alefacept were administered.

Total CD4 count never fell below 400 cells per microliter. Some swelling reduction and some itch reduction was noted at the end of week 1 of alefacept. His leg rash was improved by the start of week 9. Marked subjective improvement of the patient's hands was not noted until the end of week 12. Minimal improvement was seen in scale reduction at the start of week 16 (the last week the drug was given), unchanged at the start of week 20. Loss of erythema was noted on his next follow-up visit (week 32 after the start of alefacept). Small areas of scale, however, remained on his hands. Patch testing was repeated 9 months after the last dose of alefacept and read by same investigator (P.J.A.). Patch-test reactions were negative except for mild erythema newly noted to balsam of Peru. At the end of month 12, as well at 23 and



Figure 1. Palms before alefacept (black line on palm is biopsy site).

From the Department of Dermatology, Wayne State University, Dearborn, MI.

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28 months post treatment, examination showed focal scale covering 0.1% of the body surface area, without erythema or itch, mainly on his right hand (Fig 2). Topical desoximetasone used one to two times per month controlled the scaling to his satisfaction. No worsening has yet been seen 28 months post drug.

The spontaneous remission rate at 8 years was about 21% for nickel,⁴ 25% for colophony,⁵ and 56% for PPD⁵; annualized remission rates were 3.0% for nickel, 3.58% for colophony, and 7.2% for PPD. Time of onset of disease through time when loss of patch-test positivity was confirmed was 18 months (9 months post treatment). Remission of allergy by chance alone would then be calculated to be 5.8% for colophony and 10.6% for PPD. The combined likelihood that allergy to both PPD and colophony remission occurred by chance alone was 0.6%. Moreover, allergy to MBT also remitted.

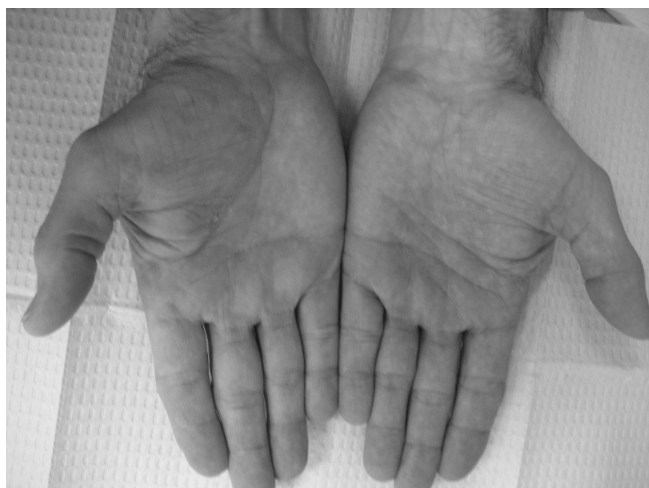


Figure 2. Palms at month 28, after conclusion of alefacept.

We cannot completely rule out that his dramatic and lasting improvement was due to some combination of spontaneous remission of his known allergies and twice-monthly application of topical corticosteroids. There is no indication of greater adherence over time to the avoidance regimen given many months prior to any improvement.

Alefacept may prove to be a treatment option for the management of refractory chronic hand dermatitis.

Acknowledgment

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Peter J. Aronson, MD
Kimberly A. Yeung-Yue, MD
Department of Dermatology
Wayne State University
Dearborn, MI

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Correction

Please note that several authors of the letter “Improvement of the T.R.U.E. Test: Launch of Panel 3,” published in *Dermatitis* Vol. 19, no. 2 (*Dermatitis* 2008;19:115–7. DOI 10.2310/6620.2007.07011), were inadvertently omitted. In addition to Sharon Jacob, MD, authorship should have included Pam Rodgers, PhD, Kim Sullivan, PhD, and Curt Hamann, MD.