sion was used to examine which variables of interest would explain unique variance associated with sunbathing intentions and intentions to sun protect. For both analyses, age, sex, skin type, and perceived susceptibility were entered in step 1, followed by the 3 appearance-based tanning motives (appearance reasons to tan, appearance reasons not to tan, and sociocultural influences) entered in step 2. The overall R^2 for both analyses was significant and indicated that a high level of variance was accounted for by the predictors (sunbathing $R^2 = .50$; sun protection $R^2 = .62$). In both regressions, appearance subscales of the PARTS explained significant variance beyond that explained by age, sex, skin type, and perceived susceptibility (**Table**). Appearance reasons to tan were significantly associated with sunbathing intentions ($P < .01$) but not with sun protection intentions ($P = .07$): adolescents who positively endorsed appearance reasons to tan also reported more frequent intentions to sunbathe in the next 12 months and fewer intentions to sun protect. Appearance reasons not to tan were significantly associated with sunbathing intentions ($P = .03$) and with sun protection intentions ($P < .01$): participants scoring higher on appearance reasons not to tan also reported fewer intentions to sunbathe and higher intentions to sun protect.

Comment. This study suggests that adolescents' sunbathing intentions are enhanced by the belief that tanning will positively impact appearance and are tempered by the belief it will negatively affect appearance. In addition, sun protection intentions are elevated by the belief that sun exposure will negatively affect looks, and reduced by the belief that exposure will improve appearance. These findings replicate our earlier work with adults, demonstrating that appearance factors explain unique variance beyond variables that have received more extensive evaluation, such as perceived susceptibility and skin type.

Limitations of the study include the cross-sectional design and the use of self-report as the method of measuring sunbathing and sun protection levels. Additionally, it will be important in future work to compare appearance motives with other factors such as perceived severity of skin cancer and behavioral willingness to engage in risky behaviors. In our group's previous 6-month prospective investigation,[5] we found that appearance motives predicted sunbathing behavior via the mediational role of intentions. Therefore, future work with adolescents might address the potentially important role of appearance motives and intentions to sunbathe or sun protect in the actual prediction of future sunbathing behavior. Overall, this study indicates the potential need for interventions to include strategies designed to challenge appearance motives for tanning.

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Efficacy and Safety of Topical WBI-1001 in the Treatment of Atopic Dermatitis: Results From a Phase 2A, Randomized, Placebo-Controlled Clinical Trial

Most patients with mild to moderate atopic dermatitis (AD) are currently treated with topical therapy. However, there are safety concerns with long-term use of topical agents such as corticosteroids and calcineurin inhibitors.[1,2] The novel synthetic compound WBI-1001 (2-isopropyl-5-[(*E*)-2-phenylethenyl] benzene-1, 3-diol) (hereinafter, "IPBD") demonstrates nonsteroidal anti-inflammatory activities. Originally derived from metabolites of a unique group of bacterial symbionts of entomopathogenic nematodes, IPBD has been demonstrated to inhibit inflammatory cytokine secretion by activated T cells, including tumor necrosis factor α and interferon γ in vitro (data on file at Welichem Biotech Inc, Burnaby, British Columbia, Canada). Furthermore, it has been demonstrated to inhibit allergic contact dermatitis in a mouse edema model (data on file at Welichem). The objective of the present trial was to study the safety and efficacy of topical IPBD creams for the treatment of adult patients with atopic dermatitis.

Methods. This was a single-center, parallel group, randomized, double-blinded, vehicle-controlled, phase 2A

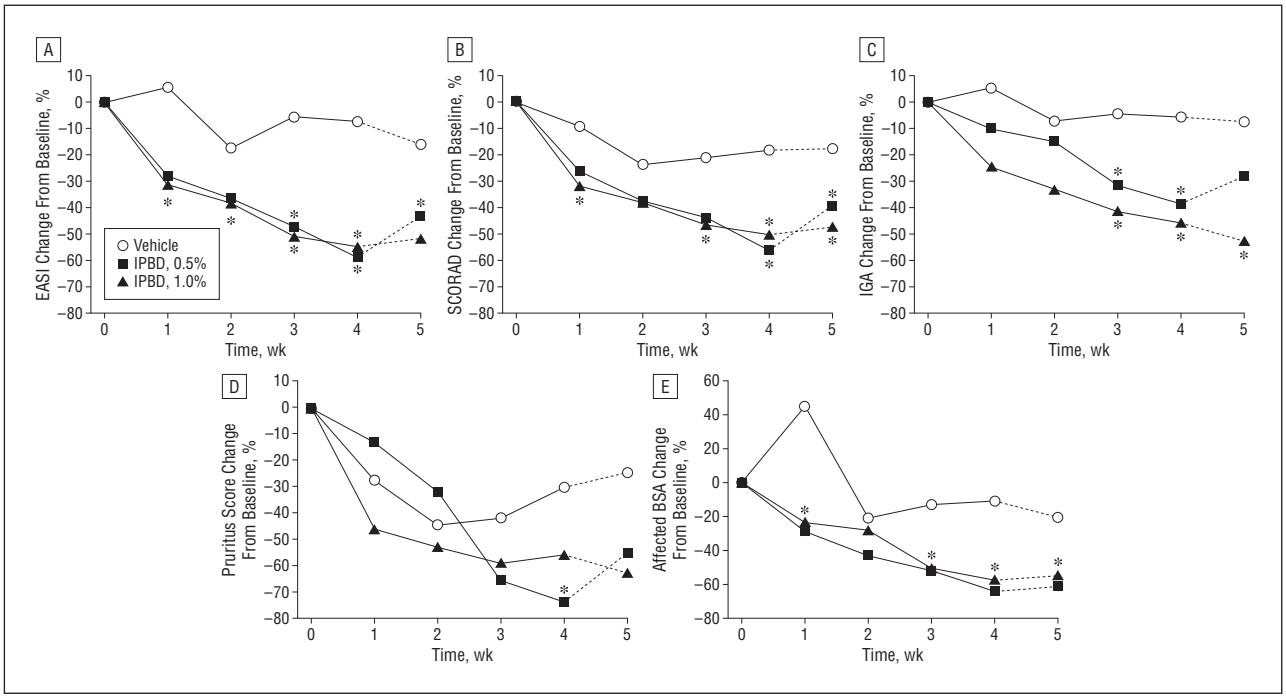

Figure 1. Percentage reduction from the baseline in mean skin evaluation scores in patients with atopic dermatitis treated with topical placebo (vehicle), IPBD, 0.5%, and topical IPBD, 1.0%, creams. A, EASI; B, SCORAD; C, IGA; D, pruritus; and E, affected BSA. For all abbreviation expansions see the introduction and "Methods" section herein. Treatment was discontinued in all cases at week 4; the dotted lines indicate the scores 1 week after discontinuation of treatment. The points at which the data reached a level of statistical significance compared with the placebo cream.

study in adults with AD. The study was conducted in accordance with the Declaration of Helsinki and International Conference on Harmonization and Good Clinical Practice guidelines and was reviewed and approved by an institutional review board. Thirty-seven men and women were randomized (1:1:1) to apply twice daily either the vehicle cream, IPBD, 0.5%, cream, or IPBD, 1.0%, cream for 4 weeks.

Safety and tolerability of topically applied IPBD were assessed by physical examinations, electrocardiography, hematologic and clinical chemical analysis, urinalysis, and by evaluating adverse events. Efficacy of IPBD was assessed by measuring the mean values and percentage changes over baseline in the Eczema Area Severity Index (EASI) scores,[3] SCORing Atopic Dermatitis score (SCORAD),[4] Investigator's Global Assessment (IGA),[5] body surface area (BSA) involvement, and pruritus (10-cm visual analog scale). To be eligible, patients had to have a minimum of 1% and a maximum of 10% of their BSA affected with AD excluding the face, groin, scalp, and genital regions; an EASI score of less than 12; and an IGA score of 2 (mild) or 3 (moderate).

A repeated-measures analysis of variance model was used to analyze changes over time. A pairwise group comparison at each visit was performed on all efficacy parameters using a Bonferroni correction. All statistical tests were carried out at the 5% significance level. Efficacy analyses should be considered post hoc analyses because they were not planned before database lock.

Results. *Safety*. At both 0.5% and 1.0% concentrations, IPBD was well tolerated by patients. There were no serious adverse events, and no patients discontinued owing to adverse events. Three patients developed mild papules on treated areas: 1 of these was randomized to vehicle, and the other 2 to IPBD, 1.0%. In all cases, the eruptions were mild, and patients continued to apply the study creams to active AD. Two patients who complained of pruritus had both been randomized to vehicle. The only other adverse event coded by the investigator as possibly related to IPBD was a nonspecific anomaly of T wave observed on electrocardiography in a patient randomized to IPBD, 1.0%. However, IPBD was not detected in the plasma samples of this patient at any time points.

Efficacy. After 4 weeks of treatment both 0.5% and 1.0% concentrations, IPBD demonstrated significant reduction in EASI (59.3% and 54.9%, respectively, compared with 7.1% for vehicle) ($P=.03$) (**Figure 1**A), SCORAD (56.2% and 50.1%, respectively, compared with 18.4% for vehicle) ($P=.04$) (Figure 1B), IGA (38.9% and 45.8%, respectively, compared with 5.6% for vehicle ($P=.003$) (Figure 1C), and pruritus scores (74.0% and 56.0%, respectively, compared with 30.2% for vehicle) ($P=.04$) (Figure 1D) and significant reduction in affected BSA (64.4% and 57.7%, respectively, compared with 10.8% for vehicle) ($P=.03$) (Figure 1E). At week 4, 50% of subjects in both active treatment arms (n=23) had an IGA of 0 (clear) or 1 (almost clear) compared with 8.3% for the vehicle arm (n=12) (**Figure 2**).

Pharmacokinetics. Pharmacokinetic analyses showed that IPBD was minimally absorbed. For patients randomized to 0.5% and 1.0% IPBD concentrations, plasma levels of IPBD 8 hours after application ranged from below the lower limit of quantifica-

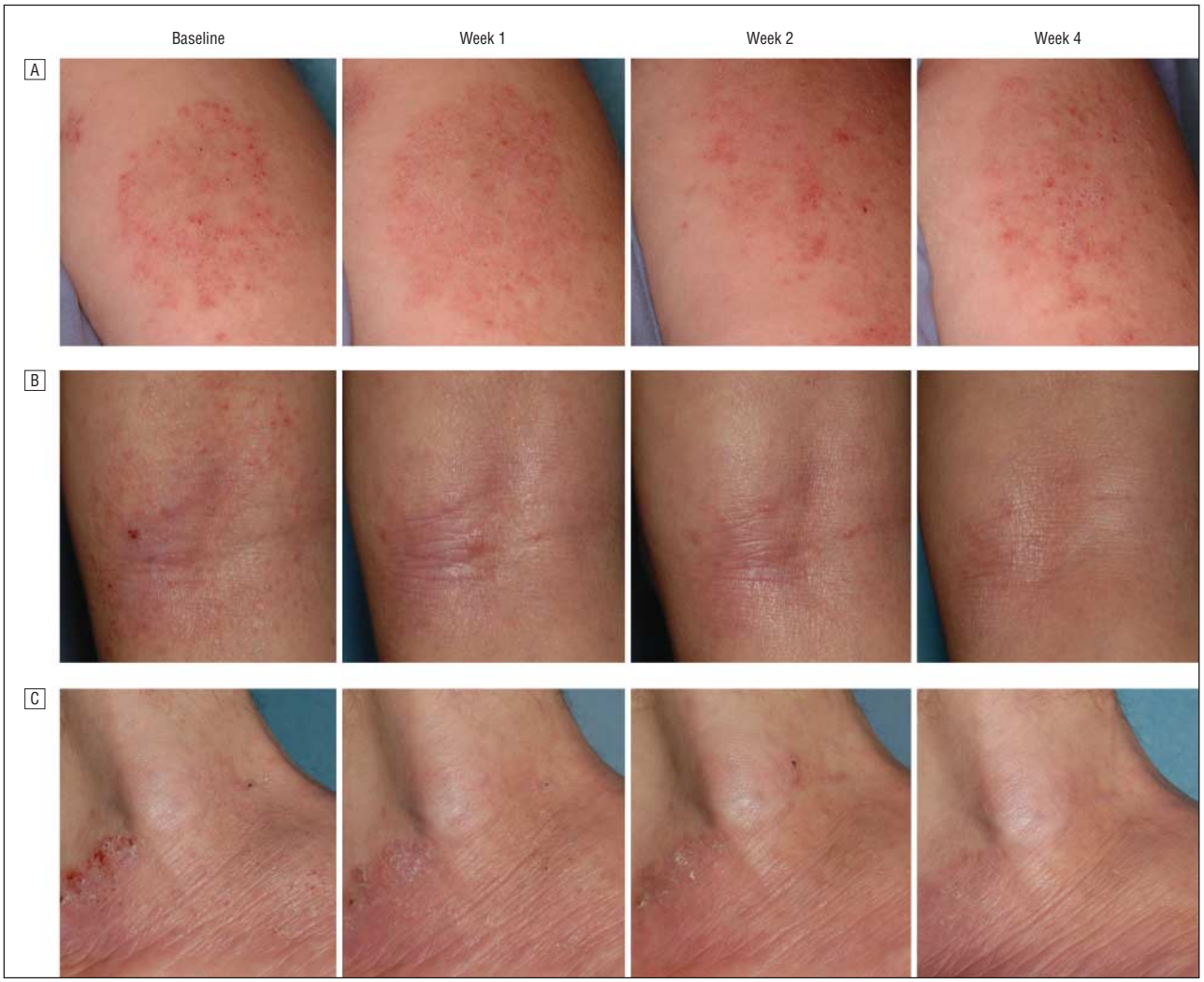

Figure 2. Representative patients with atopic dermatitis before and during treatment. Patients with atopic dermatitis were photographed at baseline and at weeks 1, 2, and 4 of the treatment regimen with placebo cream (A), IPBD, 0.05%, cream (B), or IPBD, 1.0%, cream (C). IPBD indicates novel synthetic compound WBI-1001 (2-isopropyl-5-[(*E*)-2-phenylethenyl] benzene-1, 3-diol).

tion (0.10 ng/mL) to a maximum of 5.97 ng/mL after the first cream application and 0.44 ng/mL at week 4.

Comment. Topical IPBD at 0.5% and 1.0% in a cream formulation was well tolerated when used to treat patients with AD. Both 0.5% and 1.0% IPBD were superior to vehicle in improving AD at week 4 as demonstrated by the significant decrease in the EASI, SCORAD, IGA, and BSA scores. These results need to be confirmed by larger clinical trials.

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COMMENTS AND OPINIONS

Exercise-Induced Vasculitis

I read with interest the article titled "Relapsing Leukocytoclastic Vasculitis Triggered by Activity in a Young Woman."[1] In this article, the authors suggest that the condition has "eluded mention in the American literature."[1(p602)] Furthermore, they state that this condition has not "demonstrated clinical or laboratory evidence of systemic disease."[1(p602)] Neither of these comments is accurate.

The first inaccurate assertion illustrates the complexity of reporting a "first case." Some American journals lack indexing on typical journal searches. For instance, an important journal for primary care sports medicine issues included a discussion of this sports dermatosis almost 4 years ago.[2] Another mention of this entity appeared in another unindexed journal 1 year later.[3] In addition, discussions of unusual dermatologic conditions, such as this exercise-related vasculitis, appear not only in case reports but also embedded within review articles on general topics, such as sports dermatology. Three years ago, a thorough discussion of exercise-induced vasculitis in a review of skin manifestations of running appeared in the *Journal of the American Academy of Dermatology*.[4]

On the issue of systemic associations with exercise-related vasculitis, a report in the indexed literature exists that notes an association between a teratoma and exercise-induced vasculitis.[5] The topic of purpuric lesions in athletes can be confusing, as the authors note. Both noninflammatory[6] and inflammatory (vasculitic) sports-related purpuric entities exist; the first step in clearing the confusion requires altering the inflammatory terminology to *exercise-induced vasculitis*.

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Golfer's Vasculitis vs Cutaneous Vasculitis Exacerbated by Activity

I read with interest the case report "Relapsing Leukocytoclastic Vasculitis Triggered by Activity in a Young Woman."[1] The authors describe a young woman with vasculitis that is both precipitated and exacerbated by activity. They imply that this is a specific condition and that "existing designations such as 'golfer's vasculitis' . . . may further thwart discovery of this condition."[1(p602)]

One of the most striking features of this solitary case report is that it bears no resemblance to our series of 17 patients with golfer's vasculitis.[2] The single case report describes a patient with a cutaneous vasculitis that is exacerbated by activity. This is quite different from golfer's vasculitis, which is specifically induced by prolonged exercise under hot conditions. Outside of these specific conditions, the patients are free of the disease. It is important that the differences between this case report and golfer's vasculitis be clarified to prevent any further confusion.

In my experience many types of cutaneous vasculitis are exacerbated by activity or by prolonged standing, and this phenomenon is already well recognized. It does not constitute a specific condition. This is why bed rest and leg elevation are often recommended as a treatment for vasculitis over the lower legs.