Section: Dermatology, Venereology and Leprosy

Original Research Article

COMPARATIVE EVALUATION OF THERAPEUTIC EFFECTIVENESS OF TOPICAL BETAMETHASONE, TACROLIMUS, AND CRISABOROLE IN THE MANAGEMENT OF ATOPIC DERMATITIS

Sherofina W Nathanial[1], Sanjay Khare[2], Pritica Debnath Mathur[3], Rahul Nagar[4], Shaily Gupta[5]

[1]PG Resident, Department of Dermatology, Venereology and Leprosy, MGM Medical College and M.Y. Hospital, Indore, Madhya Pradesh, India.
[2]Professor & Head, Department of Dermatology, Venereology and Leprosy, MGM Medical College and M.Y. Hospital, Indore, Madhya Pradesh, India.
[3]Assistant Professor, Department of Dermatology, Venereology and Leprosy, MGM Medical College and M.Y. Hospital, Indore, Madhya Pradesh, India.
[4]Associate Professor, Department of Dermatology, Venereology and Leprosy, MGM Medical College and M.Y. Hospital, Indore, Madhya Pradesh, India.
[5]Senior Resident, Department of Dermatology, Venereology and Leprosy, MGM Medical College and M.Y. Hospital, Indore, Madhya Pradesh, India.

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Corresponding Author:
Dr. Sherofina W Nathanial,
PG Resident, Department of Dermatology, Venereology and Leprosy, MGM Medical College and M.Y. Hospital, Indore, Madhya Pradesh, India.
Email: nsherofina@gmail.com

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ABSTRACT

Background: Atopic dermatitis (AD) is a chronic inflammatory skin condition requiring effective long-term management. Topical corticosteroids, calcineurin inhibitors, and phosphodiesterase-4 inhibitors are commonly prescribed for mild-to-moderate AD; however, comparative clinical data on their efficacy and safety remain limited. This study evaluated the therapeutic effectiveness of topical betamethasone 0.05%, tacrolimus 0.1%, and crisaborole 2% over a 60-day treatment period.

Materials and Methods: A prospective, randomized, comparative clinical study was conducted among 60 clinically diagnosed AD patients aged ≥10 years. Participants were allocated equally into three treatment groups: betamethasone (Group A), tacrolimus (Group B), and crisaborole (Group C). Clinical evaluation was performed at baseline and at 15-day intervals (Day 15, 30, 45, 60) using the SCORAD index. Adverse events were documented at each visit. Intergroup comparisons were assessed using one-way ANOVA, while intragroup changes were analyzed with repeated-measures ANOVA.

Results: All three treatment groups showed statistically significant reductions in SCORAD scores over 60 days ($p < 0.001$). Betamethasone and tacrolimus demonstrated rapid improvement up to Day 45, followed by a mild rebound at Day 60. Crisaborole showed slower initial response but a continuous, sustained decline throughout the study, achieving the lowest SCORAD value at Day 60 (11.4 ± 2.7). Intergroup differences were significant from Day 15 onward ($p < 0.05$). Adverse effects were generally mild and self-limiting, with early irritation and burning more common in the crisaborole group.

Conclusion: All three agents were effective in reducing AD severity; however, crisaborole provided the most sustained improvement without rebound, suggesting superior long-term control and potential suitability for maintenance therapy in mild-to-moderate AD.

Keywords: Atopic Dermatitis / therapy; Betamethasone / therapeutic use; Tacrolimus / therapeutic use; Crisaborole / therapeutic use.

INTRODUCTION

Atopic dermatitis (AD), commonly referred to as atopic eczema, is one of the most prevalent chronic inflammatory skin diseases worldwide, characterized by pruritus, xerosis, and recurrent eczematous lesions.[1] The global burden of AD has increased steadily over recent decades, affecting an estimated 15–20% of children and 5–10% of adults, thus representing a significant public health concern.[2] The disease course is typically relapsing and remitting, with acute exacerbations occurring against a background of chronic dermatitis that contributes to considerable morbidity, sleep disturbances, and psychosocial stress.[3]

Clinically, the presentation of AD varies widely across individuals and age groups. Acute lesions commonly exhibit erythema, vesiculation, exudation, and crusting, driven by intense inflammation and compromised skin barrier function.[4] In contrast, chronic lesions become thickened and scaly due to persistent scratching and lichenification, and may be accompanied by fissuring and pigmentation changes.[5] These fluctuating manifestations necessitate careful clinical assessment, particularly because AD can mimic several other dermatological conditions. The differential diagnosis includes seborrheic dermatitis, psoriasis, contact dermatitis, and a range of hereditary and metabolic disorders associated with generalized scaling, such as ichthyosis, primary immunodeficiency disorders, and inherited keratinization abnormalities.[6]

AD arises from a multifactorial interplay of genetic susceptibility, epidermal barrier disruption, immune dysregulation, and environmental triggers. Impaired barrier function allows allergen penetration and microbial colonization, leading to heightened type-2 immune responses. Pruritus—an essential diagnostic feature—is mediated by neuroimmune mechanisms involving cytokines such as interleukin-31, which perpetuate the itch–scratch cycle and worsen disease severity. Mild-to-moderate AD comprises a large proportion of cases encountered in routine clinical practice, underscoring the need for effective, safe, and easily applicable therapeutic options.[7]

Topical therapy remains the first-line approach for managing mild-to-moderate AD. Among the available agents, topical corticosteroids have long been the cornerstone of treatment due to their potent anti-inflammatory effects; however, long-term use is often limited by concerns about cutaneous adverse effects, including atrophy, telangiectasia, and tachyphylaxis.[8] Calcineurin inhibitors such as tacrolimus offer a steroid-sparing alternative and are particularly useful for sensitive areas like the face and flexures, though initial burning or stinging sensations may affect patient adherence.[9] More recently, phosphodiesterase-4 (PDE-4) inhibitors such as crisaborole have emerged as promising non-steroidal topical therapies, acting by down-regulating pro-inflammatory cytokines involved in the pathogenesis of AD.[9,10] Due to their favorable safety profile and minimal long-term toxicity, PDE-4 inhibitors represent an important advancement in AD management, especially for patients seeking alternatives to corticosteroids.

Despite the availability of multiple therapeutic options, comparative clinical data evaluating the relative efficacy and safety of corticosteroids, calcineurin inhibitors, and newer agents such as crisaborole remain limited. An evidence-based comparison of these commonly used treatments is essential to guide optimal drug selection, particularly in populations requiring long-term management. Understanding differences in onset of action, sustained therapeutic effect, tolerability, and adverse event profiles can improve individualized treatment strategies and enhance patient outcomes.

In this context, the present study was conducted to generate comparative real-world data on the therapeutic effectiveness of topical betamethasone 0.05%, tacrolimus 0.1%, and crisaborole 2% in patients with atopic dermatitis. The study aimed to evaluate the extent of clinical improvement achieved with each modality using standardized scoring systems, while also examining the pattern and frequency of adverse effects over the treatment period. The objective was to assess not only the efficacy of these agents but also their safety and tolerability, enabling a comprehensive understanding of their clinical utility. By comparing corticosteroid, calcineurin inhibitor, and PDE-4 inhibitor therapies within the same study framework, this work seeks to contribute meaningful evidence to support rational and patient-centered therapeutic decision-making in atopic dermatitis.

MATERIALS AND METHODS

Study Design and Ethical Approval

This prospective, randomized, comparative clinical study was conducted over a duration of three months following approval from the Institutional Review Board and Institutional Ethics Committee. All study procedures commenced only after written informed consent was obtained from participants or their guardians in accordance with ethical guidelines.

Study Population and Sample Size

A total of 60 clinically diagnosed cases of atopic dermatitis were enrolled consecutively from the dermatology outpatient department. The study population comprised individuals aged 10 years and above, involving both males and females who were treatment-naïve at the time of recruitment. The sample size was distributed equally into three groups, with twenty subjects in each treatment arm.

Randomization and Group Allocation

Participants were allocated into the three treatment groups using a consecutive random allocation method. Group A received topical betamethasone

0.05%, Group B received topical tacrolimus 0.1%, and Group C received topical crisaborole 2%. All medications were administered as per standard therapeutic regimens, and detailed instructions regarding the method and frequency of application were provided during each visit. Patients who declined consent, those with known hypersensitivity to study medications, individuals with active cutaneous infections at the treatment site, those using other topical preparations, and non-compliant patients were excluded from the study.

Clinical Assessment and Follow-up

At baseline, all participants underwent a thorough assessment that included demographic details, medical and family history, site distribution of lesions, associated allergic conditions such as asthma or allergic rhinitis, and concomitant medication use. A complete general physical examination and dermatological evaluation were performed to document lesion characteristics and disease severity. Follow-up assessments were scheduled at 15-day intervals on Day 15, Day 30, Day 45, and Day 60. During each visit, clinical improvement was evaluated using the SCORAD (Scoring Atopic Dermatitis) Index. Changes in symptom severity, lesion morphology, and overall disease burden were recorded. Adverse effects, such as irritation, burning sensation, dryness, pruritus, or pigmentation, were monitored to assess the safety profile of the interventions.

Outcome Measures

The primary outcome was the reduction in SCORAD scores from baseline to the end of the 60-day treatment period. Secondary outcomes included the degree of subjective and objective clinical improvement and the frequency and pattern of adverse effects observed across treatment groups.

Statistical Analysis

All collected data were entered into Microsoft Excel and analyzed using SPSS Version 25 (IBM Corp., Armonk, NY, USA). Descriptive statistics were presented as mean ± standard deviation. Inter-group comparisons of SCORAD scores at different time points were performed using one-way ANOVA, while changes within each treatment group over successive visits were analyzed using repeated-measures ANOVA. Bonferroni post-hoc tests were applied for pairwise comparisons wherever necessary. The distribution of adverse effects among groups was assessed using the Chi-square test. A p-value < 0.05 was considered statistically significant.

RESULTS

The present study enrolled a total of 60 patients diagnosed with atopic dermatitis, distributed evenly across three treatment groups. The baseline demographic profile showed that the 10–20 year age group constituted the largest proportion of participants (41.6%), followed by the 21–30 year group (20%), the 31–40 year and 41–50 year groups (13.3% each), and the 51–60 year group (11.6%). Females constituted a higher proportion of the study population (56.7%) compared to males (43.3%). The most commonly affected sites were the head and neck region (30%), followed by the flexors (25%) and trunk (25%). A positive family history of atopic or allergic conditions was reported by 35% of participants. Concomitant allergic conditions such as asthma (21.7%) and allergic rhinitis (11.7%) were noted, whereas 66.7% had no associated comorbidities.[Table 1]

At baseline, the mean SCORAD scores were comparable among all three groups, ranging from 59.7 to 60.5. Over the 60-day treatment period, a consistent reduction in SCORAD scores was observed across all groups. At Day 15, a modest decline was seen in all groups, with crisaborole showing the least improvement. By Day 30, the reduction became more pronounced in the betamethasone and tacrolimus groups, while crisaborole still exhibited higher SCORAD values. However, by Day 45, all three groups demonstrated a marked improvement, with crisaborole catching up. Interestingly, at Day 60, both betamethasone and tacrolimus groups showed a slight increase in SCORAD scores, whereas crisaborole continued to show improvement with the lowest score of 11.4 ± 2.7. Intergroup comparisons revealed statistically significant differences in SCORAD scores from Day 15 onward ($p < 0.05$), as determined by one-way ANOVA.[Table 2]

In the intra-group analysis using repeated-measures ANOVA, a highly significant reduction in SCORAD scores was observed within each treatment group over time ($p < 0.001$). The betamethasone and tacrolimus groups showed a progressive decline until Day 45, followed by a slight rebound at Day 60. Conversely, the crisaborole group showed a steady and uninterrupted decline in scores throughout the study duration, highlighting its sustained efficacy over time.[Table 3]

Post hoc analysis using the Bonferroni test provided further insight into the timing and magnitude of SCORAD reduction. In the betamethasone group, significant reductions were seen from baseline to all subsequent visits, with the maximum change noted at Day 45. A mild rebound was observed at Day 60. Similar trends were noted with tacrolimus, showing progressive improvement until Day 45 followed by a slight increase thereafter. Notably, the crisaborole group demonstrated a significant and continuous decline in SCORAD scores at all time intervals, with the steepest reductions observed between Days 30 and 60. These findings suggest a more durable therapeutic effect with crisaborole compared to the other two agents.[Table 4]

A total of 60 patients were randomized equally into three treatment groups. Group A received topical corticosteroids (Betamethasone 0.05%), Group B received topical tacrolimus 0.1%, and Group C was administered topical crisaborole 2% ointment. Clinical assessments were performed at baseline and

subsequently at 15-day intervals up to Day 60, using the SCORAD index as the primary efficacy measure. Both Groups A and B demonstrated a comparable and significant reduction in SCORAD scores during the first 45 days, reflecting clinical improvement in approximately 70% of patients. However, a slight rebound in lesion severity was observed by Day 60 following dose tapering. In contrast, Group C exhibited a slower initial response, with transient burning sensation reported in the early phase of treatment. Nevertheless, continued use led to improved tolerability and a marked reduction in SCORAD scores, achieving near-complete remission in nearly 80% of patients by Day 60, even after step-down therapy. Overall, the treatments were well tolerated with minimal and manageable side effects.

The adverse effect profile varied across groups and time points. Skin irritation and burning sensation were more commonly reported in the crisaborole group, particularly during the initial 15 days, affecting 25% and 30% of patients, respectively. Tacrolimus also showed mild irritation in the early phases, while betamethasone had the least incidence of adverse effects overall. Other side effects such as pruritus, dryness, and local pigmentation were sporadic and mostly limited to the early treatment period. Chi-square analysis revealed a statistically significant intergroup difference in adverse effects at Day 15 ($p = 0.02$), but not at later time points. Importantly, no serious adverse events were reported in any group, and most reactions were self-limiting or resolved without intervention.[Table 5]

Table 1: Baseline Demographic and Clinical Characteristics

Demographic and Clinical Characteristics		**n (60)**	**%**
Age Group	10-20 years	25	41.6
	21-30 years	12	20.0
	31-40 years	8	13.3
	41-50 years	8	13.3
	51-60 years	7	11.6
Gender	Female	34	56.7
	Male	26	43.3
Site of Lesions	Extensors	12	20.0
	Flexors	15	25.0
	Head/Neck	18	30.0
	Trunk	15	25.0
Family History	No	39	65.0
	Yes	21	35.0
History of concomitant disease	Allergic Rhinitis	7	11.7
	Asthma	13	21.7
	None	40	66.7

Table 2: Mean SCORAD Scores at Each Visit among different study group

Group	**Base line**	**15 Days**	**30 Days**	**45 Days**	**60 Days**
Betamethasone 0.05%	59.7 ± 1.8	48.4 ± 3.2	30.7 ± 3.9	21.9 ± 2.8	27.8 ± 3.2
Tacrolimus 0.1%	59.9 ± 1.5	47.0 ± 2.7	27.8 ± 2.8	19.9 ± 2.4	26.9 ± 2.6
Crisaborole 2%	60.5 ± 1.7	54.8 ± 2.7	43.5 ± 3.0	20.5 ± 2.6	11.4 ± 2.7
Total (All Groups)	60.0 ± 1.7	50.0 ± 4.4	34.0 ± 7.6	20.7 ± 2.7	22.0 ± 8.1
ANOVA (p-value)	0.28	0.00*	0.00*	0.04*	0.00*

- *Statistical test used: One-way ANOVA for inter-group comparison*
  **p-value < 0.05 considered statistically significant*

Table 3: Mean SCORAD Scores at Each Visit Within different study group

Visit	**Mean SCORAD Score**		
	Betamethasone 0.05%	**Tacrolimus 0.1%**	**Crisaborole 2%**
Baseline	59.70 ± 1.84	59.85 ± 1.50	60.50 ± 1.67
15 Days	48.35 ± 3.18	47.00 ± 2.73	54.75 ± 2.65
30 Days	30.65 ± 3.91	27.75 ± 2.84	43.50 ± 2.96
45 Days	21.85 ± 2.80	19.85 ± 2.43	20.45 ± 2.58
60 Days	27.80 ± 3.19	26.85 ± 2.58	11.40 ± 2.66
ANOVA (p-value)	0.000**	0.000**	0.000**

- *Statistical test used: Repeated-measures ANOVA for intra-group time-based analysis*
  ***p-value < 0.001 highly significant*

Table 4: Summary of Bonferroni Post Hoc Analysis for SCORAD Reduction within Groups

Group	Significant Time Point Comparisons	Direction of Change	Mean Difference Range	*p*-value
Betamethasone 0.05%	Baseline vs. 15, 30, 45, 60 days	Progressive ↓ till 45 days, ↑ at 60 days	11.35 – 37.85	<0.001 to 0.040
	15 vs. 30, 45, 60 days	Continued ↓	17.70 – 26.50	<0.001
	30 vs. 45, 60 days	↓ then mild ↑	2.85 – 8.80	<0.05
	45 vs. 60 days	Mild ↑	-5.95	<0.001
Tacrolimus 0.1%	Baseline vs. 15, 30, 45, 60 days	Steady ↓ till 45 days, mild ↑ at 60 days	12.85 – 40.00	<0.001
	15 vs. 30, 45, 60 days	Continued ↓	19.25 – 27.15	<0.001
	30 vs. 45, 60 days	↓ then plateau	0.90 – 7.90	0.000 – NS
	45 vs. 60 days	Mild ↑	-7.00	<0.001
Crisaborole 2%	Baseline vs. all time points	Progressive ↓	5.75 – 49.10	<0.001
	15 vs. 30, 45, 60 days	Steep ↓	11.25 – 43.35	<0.001
	30 vs. 45, 60 days	Rapid ↓	23.05 – 32.10	<0.001
	45 vs. 60 days	Continued ↓	9.05	<0.001

Bonferroni-adjusted p-values used. All values reported are statistically significant at $p < 0.05$ unless otherwise noted (NS: Not significant). Progressive reduction in SCORAD was observed in all groups, with crisaborole showing the most sustained and significant decline through Day 60

Table 5: Distribution of adverse effects among different groups at various time intervals

Adverse Effect	Time Interval	Betamethasone 0.05% (n=20)	Tacrolimus 0.1% (n=20)	Crisaborole 2% (n=20)	Total (n=60)	p-Value
Skin Irritation	15 Days	2 (10%)	3 (15%)	5 (25%)	10 (16.7%)	0.02*
	30 Days	1 (5%)	2 (10%)	3 (15%)	6 (10.0%)	
	45 Days	0 (0%)	1 (5%)	2 (10%)	3 (5.0%)	
	60 Days	0 (0%)	0 (0%)	1 (5%)	1 (1.7%)	
Burning Sensation	15 Days	0 (0%)	2 (10%)	6 (30%)	8 (13.3%)	
	30 Days	1 (5%)	1 (5%)	4 (20%)	6 (10.0%)	
	45 Days	0 (0%)	0 (0%)	2 (10%)	2 (3.3%)	
	60 Days	0 (0%)	0 (0%)	1 (5%)	1 (1.7%)	
Pruritus Increase	15 Days	2 (10%)	1 (5%)	1 (5%)	4 (6.7%)	
	30 Days	1 (5%)	0 (0%)	1 (5%)	2 (3.3%)	
	45 Days	0 (0%)	0 (0%)	0 (0%)	0 (0%)	
	60 Days	0 (0%)	0 (0%)	0 (0%)	0 (0%)	
Dryness/Scaling	15 Days	2 (10%)	1 (5%)	0 (0%)	3 (5.0%)	
	30 Days	1 (5%)	0 (0%)	0 (0%)	1 (1.7%)	
	45 Days	0 (0%)	0 (0%)	0 (0%)	0 (0.0%)	
	60 Days	0 (0%)	0 (0%)	0 (0%)	0 (0.0%)	
Local Pigmentation	30 Days	2 (10%)	0 (0%)	0 (0%)	2 (3.3%)	

- *Chi-square test was applied for intergroup comparison.*
- *A p-value < 0.05 was considered statistically significant*

DISCUSSION

The present prospective randomized study compared the therapeutic effectiveness of topical corticosteroid (betamethasone 0.05%), topical tacrolimus 0.1%, and topical crisaborole 2% in patients with atopic dermatitis (AD) over a 60-day period using the SCORAD index as the primary outcome measure. All three treatment modalities demonstrated significant improvement in disease severity over time; however, the pattern, magnitude, and sustainability of therapeutic response differed notably between agents. At baseline, SCORAD scores were comparable across all groups, confirming homogeneity of disease severity at enrolment. A progressive and statistically significant decline in SCORAD was observed in all groups, but crisaborole exhibited a distinct trajectory characterized by slower early improvement followed by a pronounced and sustained reduction extending through Day 60, achieving the lowest final SCORAD score among the three groups.

The corticosteroid and tacrolimus groups showed rapid improvement within the first 30–45 days, consistent with their well-established anti-inflammatory profiles. However, both groups demonstrated a mild rebound at Day 60, which may be attributable to tapering, reduced compliance, tachyphylaxis, or the intrinsic relapsing nature of AD following withdrawal of potent anti-inflammatory control.[11] In contrast, crisaborole demonstrated continuous improvement without rebound, indicating a more durable therapeutic effect over the long term. This aligns with findings from a systematic literature review and network meta-analysis, where crisaborole was shown to be comparable to tacrolimus and superior to pimecrolimus and vehicle in achieving ISGA 0/1 at 28–42 days.[12] Although their analysis focused on global assessments rather than SCORAD, the convergence of evidence highlights the efficacy of crisaborole as a nonsteroidal anti-inflammatory agent with sustained therapeutic benefits.[13]

The delayed but steady improvement observed with crisaborole in the present study parallels the pharmacodynamic characteristics of PDE-4

inhibition.14Unlike corticosteroids and calcineurin inhibitors, which provide rapid immunosuppressive effects, crisaborole modulates inflammatory cytokine production through downregulation of PDE-4 activity, resulting in progressive reduction of inflammatory mediators such as TNF-α, IL-12, and IL-23.[15] This mechanistic difference can explain the slower initial response but more durable long-term disease control, as also suggested in prior pivotal trials AD-301 and AD-302, which reported sustained improvements in patients ≥2 years with mild-to-moderate AD. Additionally, the network analysis demonstrated that while tacrolimus 0.1% and 0.03% showed favorable efficacy, the point estimates for crisaborole marginally favored it over low-dose calcineurin inhibitors, supporting the present study's results.[16]

When contextualized within the broader landscape of topical AD treatments, findings from the comprehensive 2023 JACI systematic review and network meta-analysis of 219 RCTs provide important insight. Chu et al. concluded that pimecrolimus, tacrolimus, and moderate-potency topical corticosteroids were among the most effective options for improvement and maintenance of AD outcomes across patient-important measures such as disease severity, itch, sleep disturbance, and quality of life.[17] Crisaborole was categorized as intermediately effective, though still superior to vehicle and beneficial in reducing eczema severity. The present study's results, however, suggest a comparatively greater therapeutic impact of crisaborole by Day 60, potentially reflecting differences in study design, baseline severity, patient demographics, or outcome measures, given that SCORAD captures both objective and subjective components of disease activity. Moreover, the sustained decline without rebound observed in our study may align with the long-term disease control emphasized in the JACI analysis, where nonsteroidal agents demonstrated favorable profiles for maintenance therapy.

Adverse effect patterns observed in this study were mild, self-limiting, and consistent with existing literature. The crisaborole group experienced higher rates of burning and irritation during the initial 15–30 days, similar to the topical application site reactions reported in AD-301 and AD-302 trials.[16] Tacrolimus also showed mild irritation and burning in early visits, in concordance with prior comparative trials and meta-analyses reporting burning sensations as the most common adverse event with calcineurin inhibitors.[18] Betamethasone exhibited the lowest incidence of adverse events, likely attributable to its short-term use and familiar tolerability profile. Importantly, no serious adverse events or treatment discontinuations occurred in any group, supporting the overall safety of all three modalities.[19] The JACI review reaffirmed that tacrolimus, pimecrolimus, and moderate-potency corticosteroids demonstrated high-certainty evidence for improving multiple AD outcomes without increasing harm, while crisaborole showed intermediate efficacy with uncertain harm due to sparse comparative data.[17] Our findings support the tolerability of crisaborole as no significant safety concerns emerged over the study period.

The slight rebound in SCORAD scores in the corticosteroid and tacrolimus groups after Day 45 may also be interpreted in light of the "maintenance gap" highlighted in the JACI review, which showed that proactive and continuous therapy is crucial in maintaining remission and preventing flares.[17] Since our study used standard reactive treatment without proactive maintenance, the mild rebound is not unexpected and emphasizes the need for individualized maintenance strategies in long-term AD care. Conversely, the sustained improvement with crisaborole suggests that it may serve as a valuable option for maintenance therapy due to its favorable safety profile and continued efficacy without rebound.

A comparison of the magnitude of improvement across treatment groups shows that while betamethasone and tacrolimus produced faster initial responses, crisaborole achieved the greatest overall reduction in SCORAD scores by the end of the 60-day period. Although its early improvement was slower, its progressive and sustained decline in disease severity highlights its stronger long-term effectiveness. This pattern suggests that short-term assessments may underestimate the full therapeutic potential of crisaborole, as its benefits become more evident beyond the initial few weeks of treatment.[20]

The strengths of this study include its randomized design, use of a validated scoring system (SCORAD), and uniform follow-up schedule. However, limitations include a relatively small sample size, short follow-up duration, and the inability to evaluate long-term relapse rates beyond Day 60. Larger multicentric trials with extended follow-up comparing crisaborole with both calcineurin inhibitors and corticosteroids are warranted to better characterize its role in long-term AD management.

CONCLUSION

All three therapeutic agents demonstrated significant improvement in AD severity, but crisaborole exhibited a more sustained and progressive reduction in SCORAD scores without rebound, particularly beyond Day 45, suggesting superior long-term disease control compared with betamethasone and tacrolimus in this cohort. These findings align partially with existing evidence (Ref 1, Ref 2) and support the role of crisaborole as an effective and well-tolerated option in the management of mild-to-moderate AD, especially when long-term maintenance and safety are clinical priorities.

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