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Original Research Article

Efficacy and safety of G-Lite® cream (oxyresveratrol based combination) with Cristello® sunscreen in hyperpigmentation management

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ABSTRACT

Background: Hyperpigmentation is a prevalent concern in skin of color, characterized by excessive melanin production due to inflammation, UV exposure, hormonal fluctuations, or dermatological conditions. Individuals with Fitzpatrick skin types IV-V are more susceptible to persistent pigmentary disorders such as melasma and post-inflammatory hyperpigmentation (PIH), necessitating cautious treatment to avoid hypopigmentation or worsening pigmentation. Conventional depigmenting agents often pose safety concerns, leading to increased interest in botanical and cosmeceutical alternatives with superior tolerability. This study evaluates the efficacy and safety of G-Lite® (Oxyresveratrol based combination) cream in combination with Cristello® sunscreen for treating hyperpigmentation.
Methods: A prospective, open-label, non-comparative study was conducted. Thirty adults (18–45 years) with epidermal hyperpigmentation were enrolled and followed up for 12 weeks. Participants applied G-Lite® cream at night once daily (OD) and Cristello® sunscreen thrice daily. Melanin and erythema indices were assessed using Dermacatch at baseline (visit 1), week 6 (visit 2), and week 12 (visit 3). Clinical photographs and patient satisfaction were recorded.
Results: Melanin levels decreased by 30–33% across facial regions, while erythema reduced by 17–22%, indicating efficacy with good tolerability. Physician assessments showed that 73% of participants achieved at least a 26% pigmentation reduction. Patient satisfaction closely aligned with clinical outcomes. No adverse effects were reported.
Conclusions: G-Lite® cream effectively reduces hyperpigmentation in skin of color with minimal irritation. Its botanical formulation offers a promising, safer alternative to conventional depigmenting agents.

Keywords: G-Lite® cream, Cristello®, Hyperpigmentation, Melanin, Erythema, Melasma, Kojic acid, Post inflammatory hyperpigmentation, Niacinamide

INTRODUCTION

Hyperpigmentation, a common concern in skin of color, occurs due to increased melanin production triggered by factors such as inflammation, sun exposure, hormonal changes, or underlying dermatological conditions.[1] Individuals with Fitzpatrick skin types IV-V are particularly prone to conditions like post-inflammatory hyperpigmentation (PIH), melasma, and lentigines, which often appear darker and more persistent due to higher baseline melanin levels.[2] Treating hyperpigmentation in skin of color requires a cautious approach to avoid complications like hypopigmentation or further darkening.[3] Both dermatologists and patients continue to

seek long-term, effective topical treatments, ranging from cosmetic products to cosmeceuticals, to address skin hyperpigmentation.

Traditional depigmenting agents, although effective, often come with safety concerns such as ochronosis, atrophy, carcinogenesis, and other local or systemic adverse effects when used long-term. This has shifted focus toward safer, plant-based alternatives with fewer side effects.[4] Active compounds such as oxyresveratrol, arbutin, aloesin, gentisic acid, flavonoids, licorice, niacinamide, and polyphenols have demonstrated melanogenesis inhibition without melanocytotoxicity, acting through various mechanisms.[5]

Combining these agents with antioxidants, humectants, and UV filters such as alpha-tocopherol, hyaluronic acid, and octinoxate offers synergistic effects for skin lightening and protection. Incorporating sunscreen and educating patients about sun protection are crucial components of managing hyperpigmentation.[6] Despite the availability of effective treatments, the management of hyperpigmentation remains challenging, necessitating continued exploration of innovative, safe, and efficacious formulations. This study aims to assess the effectiveness of the G-Lite® cream with Cristello® sunscreen for hyperpigmentation.

METHODS

This was a prospective, open-label, non-comparative study conducted at the CUTIS Academy of Cutaneous Sciences, Bengaluru. All individuals with epidermal hyperpigmentation presenting at the study site were screened for eligibility by a dermatologist. The clinical trial was conducted in accordance with Good Clinical Practice (GCP) guidelines, registered with the Clinical Trials Registry of India (CTRI) – CTRI/2024/09/073528, and received approval from the Institutional Ethics Committee.

Eligible participants were required to meet the following inclusion criteria: adults aged 18-45 years with hyperpigmentation, willingness to provide written informed consent and photo consent, commitment to follow up for three visits over 12 weeks, and adherence to study protocols. Exclusion criteria included prior use of pigment-reducing creams (stopped 12 weeks prior to study), concurrent dermatological conditions affecting the face, known hypersensitivity to study drugs, recent facial procedures, pregnancy or lactation, and other factors determined by the investigator.

The test product - G-Lite® cream, procured from Gufic Bio Science Limited, Mumbai. It contains five tyrosinase inhibitors (Oxyresveratrol, Kojic Acid, Arbutin, Licorice Extract, and Mulberry Extract), one melanosome transfer inhibitor (Niacinamide), two antioxidants (Alpha Tocopherol and Tetrahydrocurcumin), two moisturizers (allantoin and hyaluronic acid), and a UV chemical filter (octinoxate).

Treatment protocol

The study was conducted over three visits. Visit 1 (day 0), visit 2 (week 6), and visit 3 (week 12). Participants applied G-Lite® cream once nightly and Cristello® sunscreen (niacinamide, suncat-DE, red raspberry seed oil, carrot seed oil, *Aloe barbadensis*, vitamin E, cinnamic acid) thrice daily for 12 weeks. They also used Moiseta® face wash (Drieline PF- *Saccharomyces cerevisiae* yeast extract) and Moiseta® night moisturizing cream (Drieline PF - *Saccharomyces cerevisiae*, Lecigel (skin mimicking phospholipid), Heliofeel) twice daily. Standardized application guidelines, including the fingertip unit (FTU) method, were provided to ensure consistency in product use.

Study outcome

Clinical and dermoscopic evaluations were performed, and photographs (clinical, dermoscopic, and Fotofinder-assisted) were captured at each visit (visit 1, visit 2 and visit 3). Clinical photographs and patient satisfaction outcomes graded on a four-point scale where grade 1: <25% reduction; grade 2: 26-50% reduction; grade 3: 51-75% reduction; grade 4: >76 % reduction. A Dermacatch colorimeter was used to measure melanin and erythema indices to assess treatment response and monitor adverse effects. Clinical photographs taken at each visit provided visual documentation of progress over time.

Statistical analysis

All numerical and categorical variables were analyzed using descriptive statistics to calculate mean values and frequencies. The reduction in melanin and erythema levels across visits (V1 to V3) was evaluated using a paired sample t-test to determine statistical significance. Physician assessments and patient satisfaction grades were compared using cross tabulation, and a Chi-square test was performed to assess the significance of their association. The relationship between the reduction in melanin levels and erythema levels was analyzed using Pearson correlation to explore potential interdependence. The statistical analysis was conducted using SPSS software and p value <0.05 is considered as statistically significant.

RESULTS

The study enrolled 30 participants with a mean age of 28 years, including 17 females and 13 males. Among them, 28 participants had skin type IV (15 females and 13 males), while 2 females had skin type V (Table 1).

The results demonstrate a significant reduction in both melanin and erythema levels over the course of treatment with the G-Lite® cream ($p<0.001$). Melanin levels

showed a consistent decline across all facial areas, with an approximate reduction of 30-33% from baseline (visit 1) to the end of the treatment (visit 3), indicating the G-Lite® cream efficacy in reducing hyperpigmentation (Figure 4 & 5). Similarly, erythema levels decreased by 17-22%, reflecting good skin tolerability (Figure 1 and 2). The mean change in melanin and erythema across the visits is tabulated in Table 2.

In the physician assessment, the highest level of improvement (grade 4) was observed in 4 participants (3 females, 1 male). This was followed by grade 3 (n=9; 5 females, 4 males) and grade 2 (n=11; 6 females, 5 males). Grade 1, representing the least improvement, was noted in 6 participants (3 females, 3 males).

In the patient satisfaction assessment, the highest satisfaction (grade 4) was reported by 2 participants (1 female, 1 male). Grade 3 (n=12; 6 females, 6 males), followed by grade 2 (n=10; 6 females, 4 males). Grade 1 satisfaction was recorded in 6 participants (4 females, 2 males). The results suggest that achieving the highest efficacy category (grade 4) was limited. Importantly, no adverse effects were reported during the study (Figure 3).

Table 1: Demographic details.

Demographic	N
Age, average (years)	28
Gender	
Males	13
Females	17
Skin type	
IV	28
V	2

Table 2: Mean melanin and erythema levels across visits and percentage change from baseline to final visit using Dermacatch (n=30),

	Baseline	Week 6	Week 12	Change in % between initial and final visit
Melanin				
Forehead	732.9	557.9	492.4	32.8
Right cheek	697.3	534.7	465.8	33.2
Left cheek	689.3	541.9	476.5	30.9
Chin	710.6	566.6	489.7	31.1
Erythema				
Forehead	457.6	418.9	374.8	18.1
Right cheek	454.8	429.1	376.3	17.3
Left cheek	453.9	424.0	369.6	18.6
Chin	452.9	421.3	353.6	21.9

$p<0.001$.

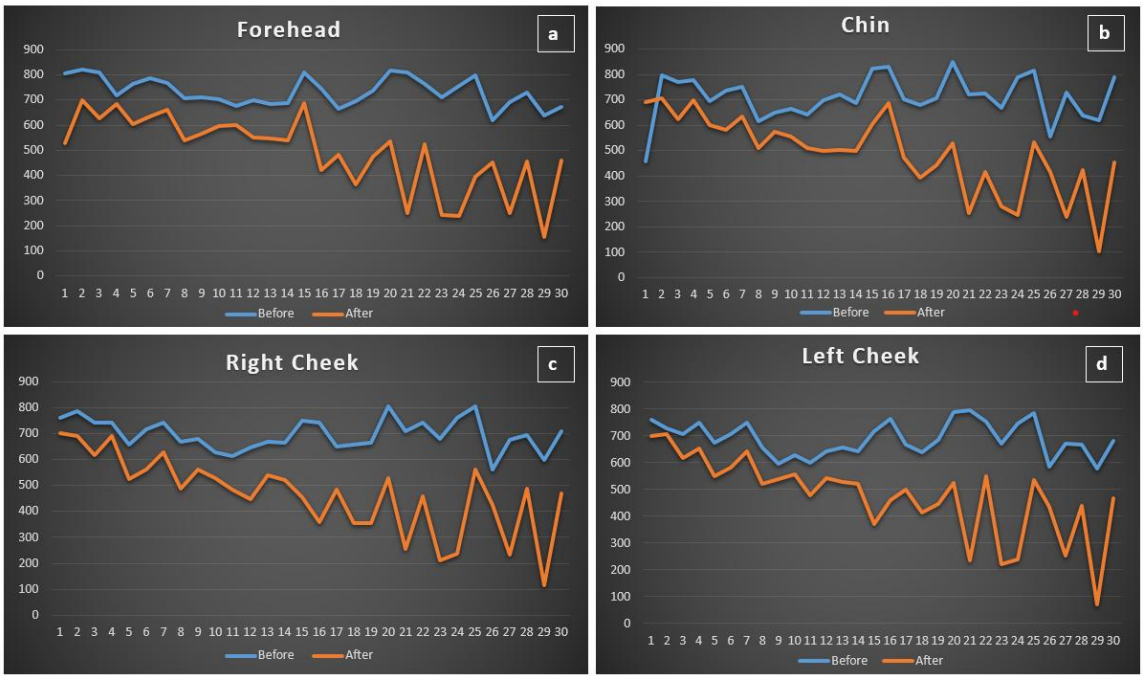

Figure 1: Comparison of melanin levels at different facial sites between baseline (visit 1) and post-treatment (visit 3): (a) forehead, (b) chin, (c) right cheek, and (d) left cheek.

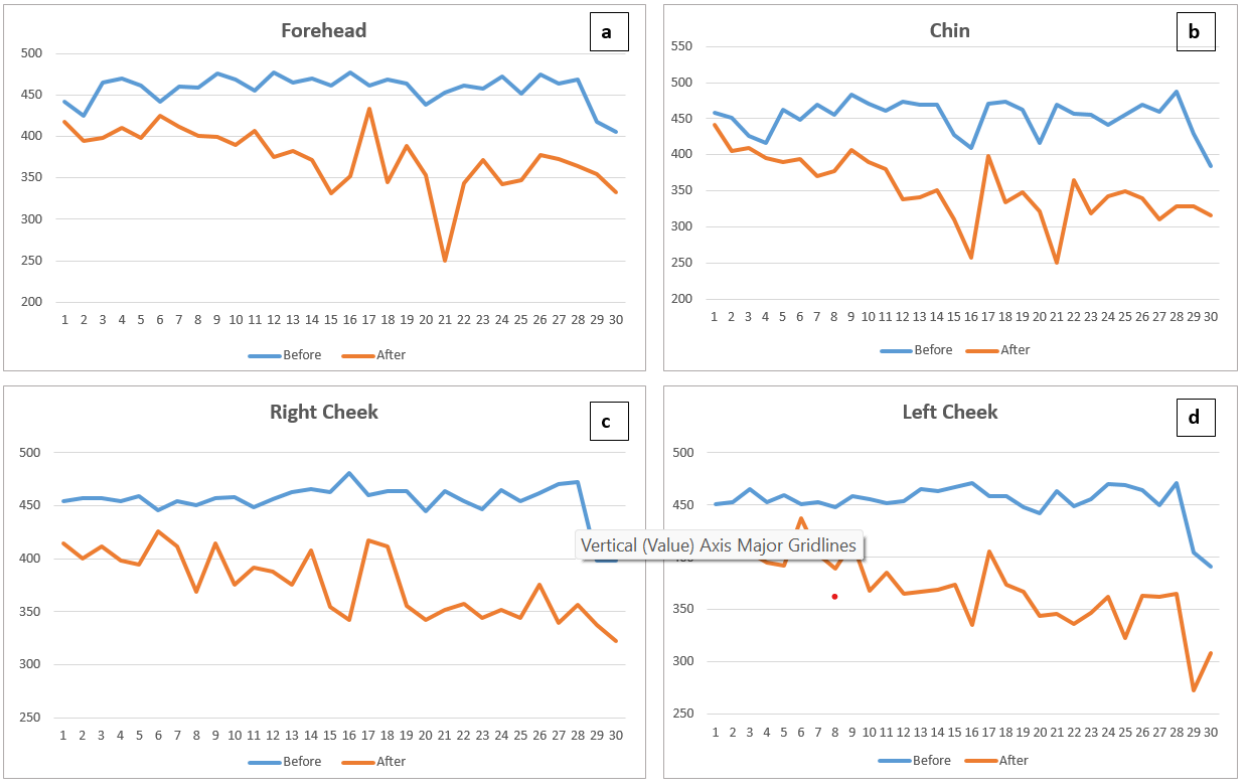

Figure 2: Comparison of erythema index at different facial sites between visit 1 (baseline) and visit 3 (post-treatment): (a) forehead, (b) chin, (c) right cheek, and (d) left cheek.

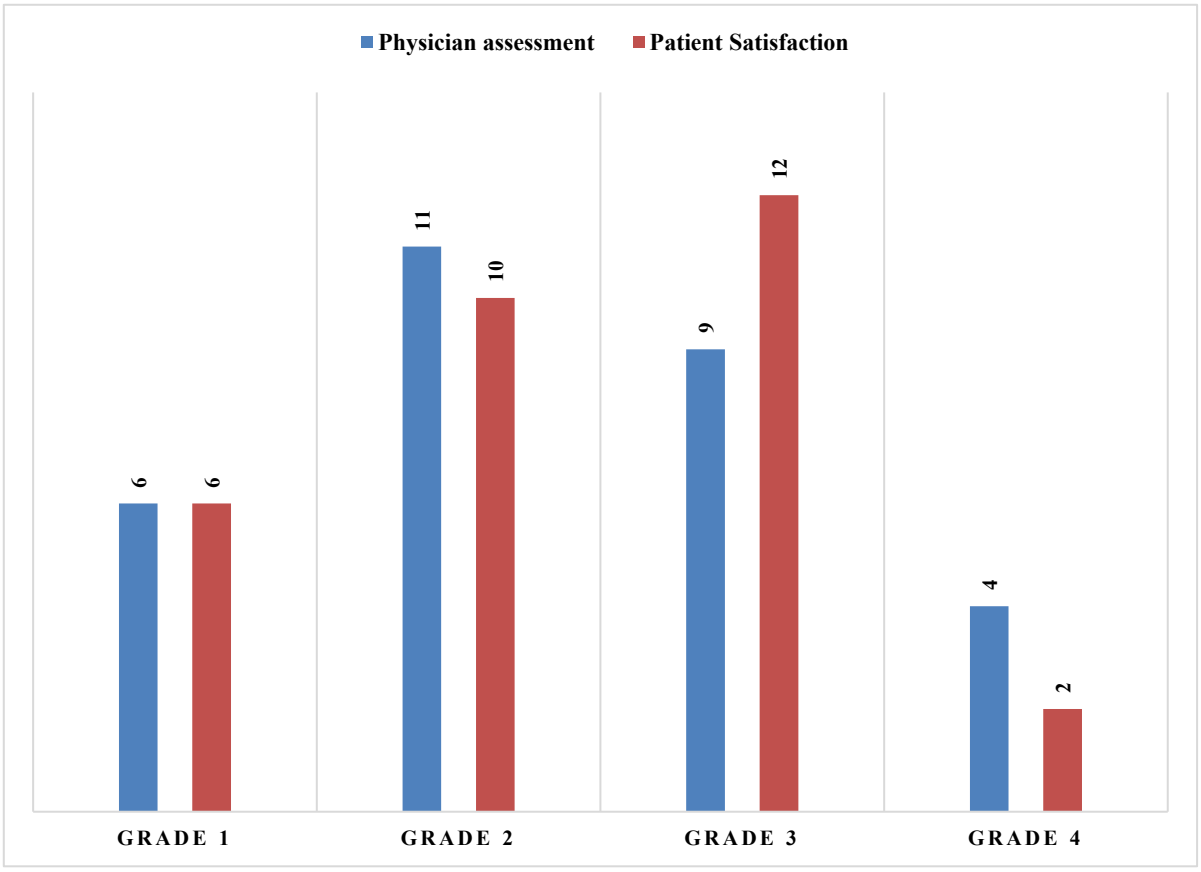

Figure 3: Physician assessment and patient satisfaction score (p<0.001).

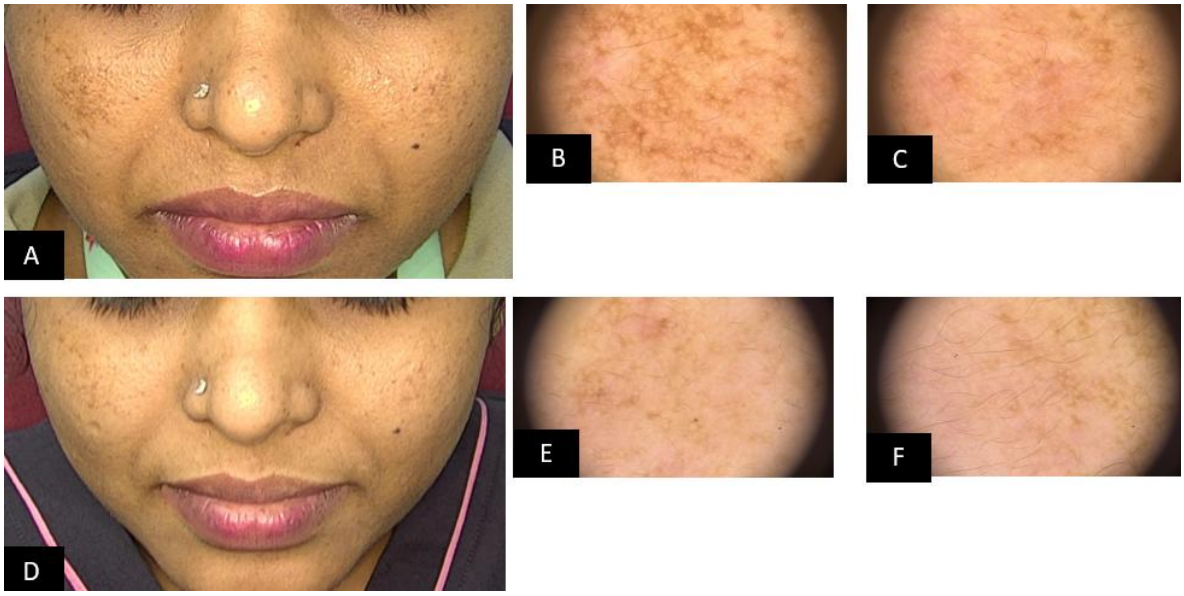

Figure 4: (A) Dermoscopy macro image of a female hyperpigmentation patient at baseline, (B and C) fotofinder images at 20x magnification and (D-F) reduction in hyperpigmentation at the endpoint, shown in images.

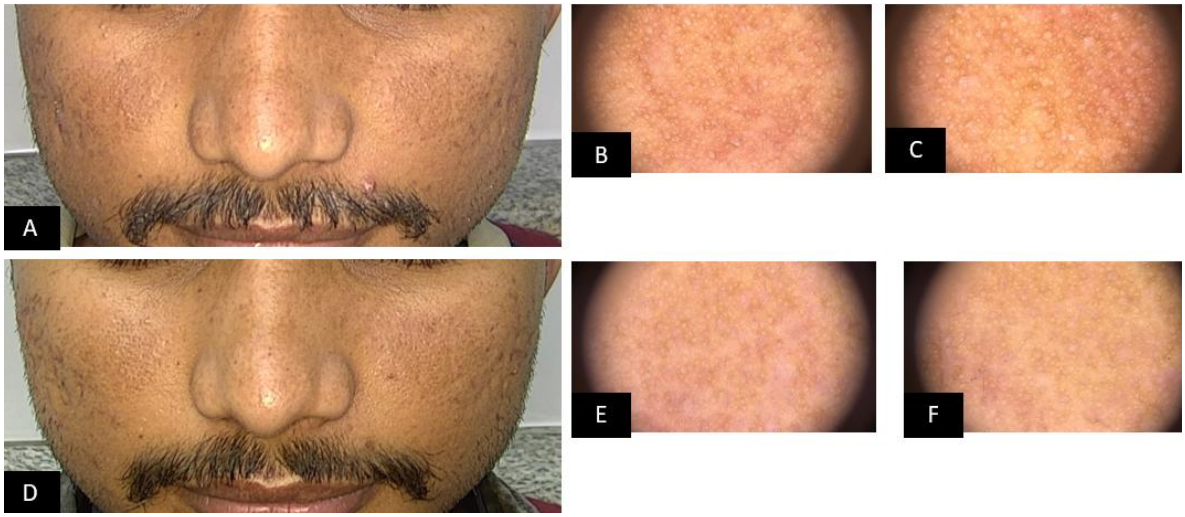

Figure 5: (A) Dermoscopy macro image of a male hyperpigmentation patient at baseline, (B and C) fotofinder images at 20x magnification and (D-F) reduction in hyperpigmentation at the endpoint, shown in images.

DISCUSSION

This study evaluated the efficacy and tolerability of G-Lite® cream in reducing hyperpigmentation among individuals with Fitzpatrick skin types VI to V. A significant reduction in melanin levels (30–35%) across all facial regions emphasizes the cream effectiveness, likely due to its active ingredients targeting melanin synthesis pathways. Depigmentation creams generally work by inhibiting tyrosinase, a critical enzyme in melanin production, with agents such as hydroquinone, kojic acid, niacinamide, and arbutin being widely recognized for their efficacy in reducing pigmentation and improving skin tone.[7,8] Hydroquinone based cream in spite of being efficacious has significant side effects such as ochronosis, skin irritation, and sensitivity.[9]

The G-Lite® cream formulation includes botanical extracts and active compounds with proven depigmenting properties. Among these is Artocarpus extract, derived from the heartwood of *Artocarpus lakoocha*, which is rich in oxyresveratrol. This compound effectively inhibits tyrosinase activity, offering a safe and cost-effective approach to reducing hyperpigmentation.[10,11] Research highlights the potent depigmenting action of *Artocarpus incisus* extract, which suppresses melanogenesis with an IC50 value of 30.2 mg/ml, surpassing the efficacy of kojic acid in animal models.[12] Arbutin and deoxyarbutin, structurally similar to hydroquinone, reduce tyrosinase activity and inhibit melanosome maturation without toxicity.[13] Licorice extract, one of the safest skin-lightening agents, inhibits tyrosinase and melanogenesis while also exhibiting anti-inflammatory and anticancer

properties.[14] Niacinamide, a physiologically active form of niacin, reduces pigmentation by inhibiting melanosome transfer, alongside anti-inflammatory and photoprotective benefits.[4,15] This combination accentuates the potential of botanical extracts in enhancing skin tone and addressing hyperpigmentation safely and effectively.

The addition of sun protection, such as Crestello®, alongside depigmentation agents enhances treatment outcomes and patient compliance, as previously noted in similar studies by Chandrashekar et al.[6] The erythema reduction (17-22%) observed in this study reinforces the tolerability of the cream, highlighting its ability to balance efficacy with minimal irritation.

Physician assessments revealed moderate improvement in the majority of participants, with 11 individuals showing a 26–50% reduction in pigmentation and 4 achieving over 76%. Patient satisfaction closely paralleled these findings, particularly in the grade 3 category (51–75% improvement). The limited responses in the highest efficacy category (grade 4) suggest opportunities for optimizing treatment regimens, such as exploring combination therapies or extending application durations, to achieve more pronounced results.

No adverse effects were reported, emphasizing the G-Lite® safety profile. Additionally, the relatively young mean age of participants (28 years) and their distribution across Fitzpatrick skin types III to V likely contributed to the favorable outcomes, as younger skin may respond better to treatment. Future research with larger, more diverse populations and extended follow-up periods is essential to further validate these findings and explore long-term benefits.

CONCLUSION

G-Lite® cream demonstrated significant efficacy in reducing hyperpigmentation with good tolerability. Its depigmenting action was enhanced by botanical ingredients such as oxyresveratrol, arbutin, licorice, and niacinamide. The inclusion of sun protection further optimized treatment outcomes. Additionally, the use of Moiseta® Face Wash and Moiseta® Night Moisturizing Cream (containing Saccharomyces cerevisiae yeast extract) as adjunct therapy supported the depigmenting effect of the cream. Future studies with larger sample sizes, comparator groups and longer follow-up periods are recommended to validate these findings.

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Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Thawabteh AM, Jibreen A, Karaman D, Thawabteh A, Karaman R. Skin Pigmentation Types, Causes and Treatment-A Review. Molecules. 2023;28(12):4839.
2. Garg S, Vashisht KR, Garg D, Oberoi B, Sharma G. Advancements in Laser Therapies for Dermal Hyperpigmentation in Skin of Color: A Comprehensive Literature Review and Experience of Sequential Laser Treatments in a Cohort of 122 Indian Patients. J Clin Med. 2024;13(7):2116.
3. Moolla S, Miller-Monthrope Y. Dermatology: how to manage facial hyperpigmentation in skin of colour. Drugs Context. 2022;11:2021-11-2.
4. Zhu W, Gao J. The use of botanical extracts as topical skin-lightening agents for the improvement of skin pigmentation disorders. J Investig Dermatol Symp Proc. 2008;13(1):20-4.
5. Liyanage A, Liyanage G, Sirimanna G, Schürer N. Comparative Study on Depigmenting Agents in Skin of Color. J Clin Aesthet Dermatol. 2022;15(2):12-7.
6. Chandrashekar BS, Vinay N. Effectiveness and safety of a combination of sun protection and depigmentation agent in the treatment of epidermal hyperpigmentation. Int J Res Dermatol. 2021;7(3):400-6.
7. Khamkar SG, Kharade BA, Korade KP, Barkade GD, Sawant RL. Formulation and Evaluation of Herbal Cream for Depigmentation. Res J Pharmacogn Phytochem. 2024;16(3):191-6.
8. Chandrashekar BS, Shenoy C, Narayana NL. Effectiveness and safety of a novel topical depigmenting agent in epidermal pigmentation: an open-label, non-comparative study. Int J Res Dermatol. 2018;4(4):489–94.
9. Fabian IM, Sinnathamby ES, Flanagan CJ, Lindberg A, Tynes B, Kelkar RA, et al. Topical Hydroquinone for Hyperpigmentation: A Narrative Review. Cureus. 2023;15(11):e48840.
10. Panichakul T, Rodboon T, Suwannalert P, Tripetch C, Rungruang R, Boohuad N, et al. Additive Effect of a Combination of Artocarpus lakoocha and Glycyrrhiza glabra Extracts on Tyrosinase Inhibition in Melanoma B16 Cells. Pharmaceuticals. 2020;13(10):310.
11. Tengamnuay P, Pengrungruangwong K, Pheansri I, Likhitwitayawuid K. Artocarpus lakoocha heartwood extract as a novel cosmetic ingredient: evaluation of the in vitro anti-tyrosinase and in vivo skin whitening activities. Int J Cosmet Sci. 2006;28(4):269-76.
12. Buranajaree S, Donsing P, Jeenapongsa R, Viyoch J. Depigmenting action of a nanoemulsion containing heartwood extract of Artocarpus incisus on UVB-induced hyperpigmentation in C57BL/6 mice. J Cosmet Sci. 2011;62(1):1-14.
13. Boo YC. Arbutin as a Skin Depigmenting Agent with Antimelanogenic and Antioxidant Properties. Antioxidants (Basel). 2021;10(7):1129.
14. Kang MH, Jang GY, Ji YJ, Lee JH, Choi SJ, Hyun TK, et al. Antioxidant and Anti-Melanogenic Activities of Heat-Treated Licorice (Wongam,

Glycyrrhiza glabra × G. uralensis) Extract. Curr Issues Mol Biol. 2021;43(2):1171-87.
15. Hakozaki T, Minwalla L, Zhuang J, Chhoa M, Matsubara A, Miyamoto K, et al. The effect of niacinamide on reducing cutaneous pigmentation and suppression of melanosome transfer. Br J Dermatol. 2002;147(1):20-31.

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