

Eczeva Clinical Trial Report

In Collaboration with UCSI University



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Global Burden of Eczema



20%

affected children globally (1)

10%

affected adults globally (1)

USD 3.3k

cost per child per year (2)

123 DALY

Highest among all the skin diseases (2)

Eczema, also known as atopic dermatitis, is a chronic skin condition characterized by inflamed, itchy, and often dry skin. It commonly affects individuals of all ages, although it frequently begins during childhood. The causes of eczema are multifactorial, including genetic, immune, and environmental factors.

Product Overview



Ingredient 1: *Melicope ptelefolia*

Melicope ptelefolia, also known as Tenggek Burung, traditionally used to treat various skin conditions, including wounds, itches, and skin diseases (3). This plant contains primarily tHGA and tHPA active compounds. Among these, tHGA has shown promise due to its ability to inhibit lipoxygenase (LOX) activity, suggesting anti-inflammatory effects beneficial for eczema treatment (4). In vitro studies indicate that tHGA reduces inflammatory markers and strengthens skin barrier integrity—both essential for managing eczema (5). Additionally, tHGA has been found to enhance epithelial barrier function and reduce cell permeability in inflamed tissues, addressing the impaired barrier function characteristic of eczema (6). These findings underscore *Melicope ptelefolia*'s potential role in managing eczema through anti-inflammatory and barrier-supportive mechanisms.



Ingredient 2: Ceramides

A review of various studies on ceramides concluded that oral ceramides, especially those from natural sources, improve skin hydration, reduce inflammation, and support skin health (7). Placebo-controlled trials demonstrated that oral ceramides enhance skin suppleness, reduce roughness, improve complexion uniformity, and alleviate itchiness in eczema patients (8). Additional trials also reported improvements in skin hydration, reduction of dry patches, roughness, and itching (9). Ceramide supplementation has further been shown to suppress inflammation, increase hydration, and restore skin barrier function, making it a promising approach for managing eczema (10).

Study Design



Interventional Plan



Statistical Analysis

Recruitment



Assessment Tools



Forty-two subjects aged 18 and above with complaints of eczema were recruited for the study.

The subjects were instructed to consume Ecevea once daily for 20 days.

Eczema condition was assessed using the Patient-Oriented Eczema Measure (POEM). Additionally, data on the use of steroid and antihistamine medications were collected simultaneously.

A General Linear Model (GLM) for repeated measures was used to analyse the changes over time.

Characteristics of Subjects

➤ Majority are female

Female - 62.8%
Male - 37.2%



Gender

➤ Majority are normal weight

Underweight - 7.0%
Normal weight - 62.8%
Overweight - 20.9%
Obese - 9.3%



Body Mass
Index (BMI)

➤ Majority aged 31 to 40

Aged 30 and below - 13.9%
Aged 31 to 40 - 32.5%
Aged 41 to 50 - 30.3%
Aged 51 and above - 23.3%



Age

➤ Majority suffered >5 years

Suffered ≤1 year - 32.6%
Suffered 2-3 years - 27.9%
Suffered 4-5 years - 4.7%
Suffered >5 years - 34.8%



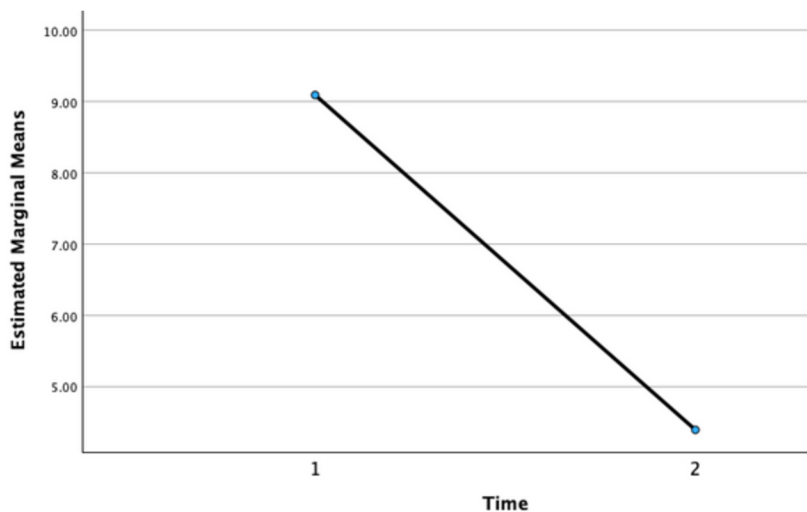
Years with
Eczema

Results

Eczema Severity

➤ Patient-Oriented Eczema Measure (POEM)

Patient Oriented Eczema Measure (POEM) is a tool used for monitoring atopic eczema severity. It focuses on the illness as experienced by the patient. It is suitable for use in the outpatient clinic, audit, epidemiological studies and clinical trials, POEM has been recommended for use by clinical guidelines including those issued by the National Institute for Health and Care Excellence (NICE) (11). POEM is recommended by the HOME (Harmonising Outcome Measures for Eczema) initiative as the core outcome instrument for measuring patient-reported symptoms in eczema trials (12,13).



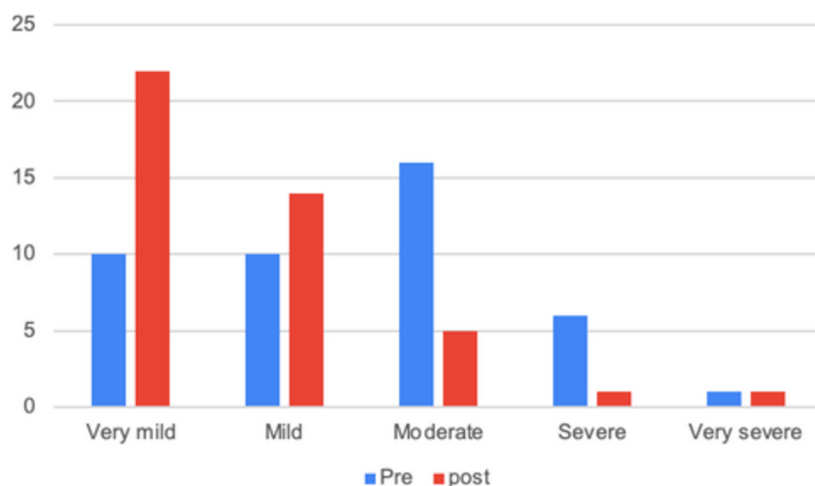
Changes are significant ($P < 0.001$)



POEM scores dropped from 9.093 to 4.395



51.7% reduction in 20 days



Subjects in moderate to severe was significantly ($P < 0.05$) reduced



69.6% reduction of subjects in moderate to very severe category



27.9% of subjects reduced severity to a very mild level

Results

Self-assessed Conditions



Skin Health

45.1% improvements

- ✓ Subjects perceived a significant improvement in their skin health ($P < 0.001$) following the consumption of Ecevea.
- ✓ The self-perceived skin health was increased from 4.28 to 6.21, reflecting a 45.1% improvements.



Skin Itchiness

30.8% reduction

- ✓ Subjects perceived a significant reduction in skin itchiness ($P < 0.05$) following the consumption of Ecevea.
- ✓ The self-perceived skin itchiness was reduced from 6.26 to 4.33, reflecting a 30.8% reduction.



Sleep Quality

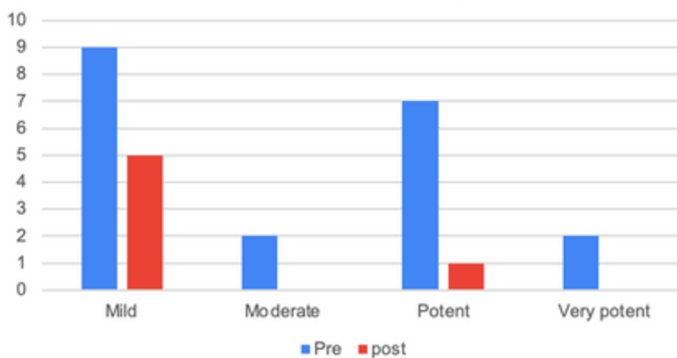
34.3 improvements

- ✓ Subjects perceived a significant improvement in their sleep quality ($P < 0.001$) following the consumption of Ecevea.
- ✓ The self-perceived sleep quality was increased from 5.33 to 7.16, reflecting a 34.3% improvements.

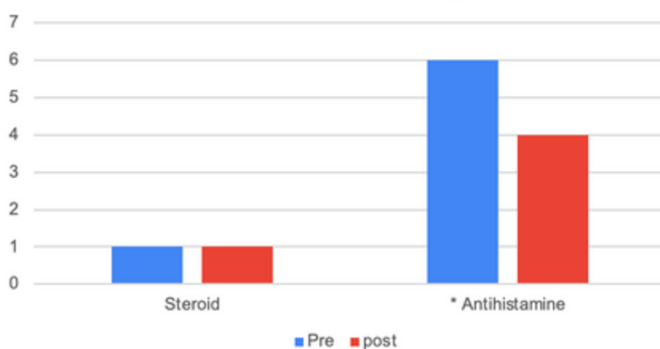
Results

Use of Steroid Medications

Topical Steroid Usage



Oral Medication Usage



* The use of antihistamines was assessed, as some patients take them as adjuvant therapy.

Use of Steroids

Steroids are effective medications for the treatment of eczema when used concurrently with an optimal skin moisturization regimen. However, topical steroids are associated the risk of skin atrophy, telangiectasia, striae, hypopigmentation, and perioral dermatitis (14). Long term usage of oral steroids may leads to fractures, eye conditions, diabetes, gastric conditions, weight gain, and cardiovascular events (15).

Outcome

Our findings indicated the used of topical steroids and oral antihistamine were significantly (P<0.001) reduced after 20 days consumption of Eczeva.

The use of potent and high potency topical steroids



Number of subjects taking this categories of steroids were reduced from 9 to 1, equivalent to 88.9% reduction.

The use of low potency topical steroids



Number of subjects taking this categories of steroids were reduced from 11 to 5, equivalent to 54.5% reduction.

The use of oral antihistamine



Number of subjects taking this categories of steroids were reduced from 6 to 4, equivalent to 33.3% reduction.

Conclusions



Overall findings indicated that 20 days consumption of Eezeva supplementation is effectively in managing and improving eczema conditions among subjects.

1 Eczema improvements

- Severity of eczema conditions as assessed by POEM was reduced by 51.7%
- Subjects in moderate to very severe categories were reduced by 69.6%

2 User experiences

- Subjects reported 45.1% improvements in their skin health
- Subjects reported 30.8% reduction in skin itchiness
- Subjects reported 34.3% improvement in their sleep quality

3 Use of steroid medication

- 88.9% reduction in the use of potent and high potency topical steroids
- 54.5% reduction in the use of low potency topical steroids
- 33.4% reduction in the use of oral antihistamine

Reference List

1. Karimkhani C, Boyers LN, Prescott L, Welch V, Delamere FM, Nasser M, et al. Global burden of skin disease as reflected in Cochrane Database of Systematic Reviews. *JAMA dermatology*. 2014;150(9):945-51.
2. Laughter MR, Maymone MBC, Mashayekhi S, Arents BWM, Karimkhani C, Langan SM, et al. The global burden of atopic dermatitis: lessons from the Global Burden of Disease Study 1990–2017*. *British Journal of Dermatology*. 2021;184(2):304-9.
3. Li S-G, Tian H-Y, Ye W-C, Jiang R-W. Benzopyrans and furoquinoline alkaloids from *Melicope pteleifolia*. *Biochemical Systematics and Ecology*. 2011;39(1):64-7.
4. Ng CH, Rullah K, Abas F, Lam KW, Ismail IS, Jamaludin F, et al. Hits-to-lead optimization of the natural compound 2, 4, 6-trihydroxy-3-geranyl-acetophenone (tHGA) as a potent LOX inhibitor: Synthesis, structure-activity relationship (SAR) study, and computational assignment. *Molecules*. 2018;23(10):2509.
5. Sim TY, Harith HH, Tham CL, Md Hashim NF, Shaari K, Sulaiman MR, et al. The protective effects of a synthetic geranyl acetophenone in a cellular model of TNF- α -induced pulmonary epithelial barrier dysfunction. *Molecules*. 2018;23(6):1355.
6. Chan YH, Liew KY, Tan JW, Shaari K, Israf DA, Tham CL. Pharmacological Properties of 2, 4, 6-Trihydroxy-3-Geranyl Acetophenone and the Underlying Signaling Pathways: Progress and Prospects. *Frontiers in Pharmacology*. 2021;12:736339.
7. Uchida Y, Park K. Ceramides in skin health and disease: an update. *American Journal of Clinical Dermatology*. 2021;22(6):853-66.
8. Guillou S, Ghabri S, Jannot C, Gaillard E, Lamour I, Boisnic S. The moisturizing effect of a wheat extract food supplement on women's skin: a randomized, double-blind placebo-controlled trial. *International journal of cosmetic science*. 2011;33(2):138-43.
9. Tessema EN, Gebre-Mariam T, Neubert RH, Wohlrab J. Potential applications of phyto-derived ceramides in improving epidermal barrier function. *Skin pharmacology and physiology*. 2017;30(3):115-38.
10. Leo TK, Tan ESS, Amini F, Rehman N, Ng ESC, Tan CK. Effect of rice (*Oryza sativa* L.) ceramides supplementation on improving skin barrier functions and depigmentation: an open-label prospective study. *Nutrients*. 2022;14(13):2737.
11. Charman CR, Venn AJ, Ravenscroft JC, Williams HC. Translating Patient-Oriented Eczema Measure (POEM) scores into clinical practice by suggesting severity strata derived using anchor-based methods. *British Journal of Dermatology*. 2013;169(6):1326-32.
12. Spuls PI, Gerbens L, Simpson E, Apfelmacher C, Chalmers J, Thomas K, et al. Patient-Oriented Eczema Measure (POEM), a core instrument to measure symptoms in clinical trials: a Harmonising Outcome Measures for Eczema (HOME) statement. *British Journal of Dermatology*. 2017;176(4):979-84.
13. Grinich E, Schmitt J, Küster D, Spuls PI, Williams H, Chalmers J, et al. Standardized reporting of the eczema area and severity index (EASI) and the patient-oriented eczema measure (POEM): a recommendation by the Harmonising outcome measures for eczema (HOME) initiative. *British Journal of Dermatology*. 2018;179(2):540-1.
14. Chong M, Fonacier L. Treatment of eczema: corticosteroids and beyond. *Clinical reviews in allergy & immunology*. 2016;51:249-62.
15. Manson SC, Brown RE, Cerulli A, Vidaurre CF. The cumulative burden of oral corticosteroid side effects and the economic implications of steroid use. *Respiratory medicine*. 2009;103(7):975-94.



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