CellMed
Orthocellular Medicine and Pharmaceutical Association

Case Report

세포교정영양요법(OCNT)을 이용한 아토피 피부염 증상 개선 사례

서연희 약사
전라남도 순천시 봉화3길 14 명성온누리약국

A Case Report on the Improvement of Atopic Dermatitis Symptoms Using Ortho-Cellular Nutrition Therapy (OCNT)

Pharmacist, Yeonhee Seo
Myeongseong Onnuri Pharmacy, 14, Bonghwa 3-gil, Suncheon-si, Jeollanam-do, Republic of Korea

ABSTRACT

Objective: Atopic dermatitis is a chronic, relapsing inflammatory dermatosis characterized by intense pruritus, xerosis, erythema, oozing, and lichenification. Its pathogenesis is primarily attributed to epidermal barrier dysfunction and dysregulated immune responses, with environmental exposures and lifestyle factors further contributing to disease exacerbation. Standard management focuses on regular moisturization, barrier repair, and topical therapies, whereas phototherapy or systemic therapies may be considered for patients with inadequate disease control. However, therapeutic responses and patterns of relapse vary substantially among individuals, indicating the need for a personalized treatment approach that reflects patient-specific characteristics.

Case Report: The patient in this case was a Korean male in his 20s with a history of recurrent exacerbations and remissions of atopic dermatitis since infancy. Despite ongoing treatment with oral medications and topical therapies, his symptoms recurred intermittently. In adulthood, both the extent and severity of the lesions increased, making adequate disease control more difficult with conventional therapy alone. Therefore, Ortho-Cellular Nutrition Therapy (OCNT) was introduced to protect the skin barrier and improve clinical symptoms. As a result, the patient achieved a clinically meaningful improvement and has maintained a stable condition without major relapse to date.

Conclusion: However, this report describes a single-patient case and is therefore limited in its ability to generalize the findings or to apply the same OCNT protocol to all patients with atopic dermatitis. Nevertheless, the findings suggest that appropriately prescribed, individualized OCNT tailored to a patient's symptom patterns and overall health status may be associated with improvement of atopic dermatitis symptoms.

Keywords Ortho-Cellular Nutrition Therapy (OCNT), Atopic dermatitis, Inflammatory response, Skin hydration, Immunity

Introduction

Atopic dermatitis is a chronic, relapsing inflammatory skin disorder accompanied by severe pruritus. It is characterized by recurrent eczematous manifestations, including xerosis, erythema, papules, oozing, and lichenification. Due to frequent symptom fluctuations and a prolonged course, the disease can adversely affect quality of life by disrupting sleep and limiting academic performance, occupational activities, and social functioning. Although prevalence varies by region and study methodology, atopic dermatitis has been reported to affect approximately 20% of children and is also observed at a substantial frequency in adults, highlighting its importance as a public health concern.[1]

The onset and exacerbation of atopic dermatitis are driven by a multifactorial mechanism involving interactions between impaired skin barrier function and dysregulated immune responses. When the skin barrier is compromised, transepidermal water loss increases, and external triggers, such as allergens and microorganisms, can penetrate more easily, thereby exacerbating inflammation and pruritus. Repeated scratching may further exacerbate barrier disruption, creating a vicious cycle.[2] In addition, various environmental and lifestyle factors, including irritant exposure, skin infections, diet-related factors, and stress, have been reported to contribute to disease exacerbation.[3]

Treatment of atopic dermatitis primarily involves moisturization, skin barrier care, and avoidance of exacerbating factors. When symptoms worsen, management is generally

*Correspondence: Yeonhee Seo
E-mail: asa19055@naver.com
Received Jan 28, 2026; **Revised** Jan 29, 2026; **Accepted** Jan 30, 2026; **Published** Jan 30, 2026
doi: http://dx.doi.org/10.5667/CellMed.spc.154

☐ This report has been translated and edited by the CellMed editor-in-chief, Prof. Beom-Jin Lee.

implemented in a stepwise manner, with an emphasis on topical therapies. For moderate-to-severe disease or disease that remains difficult to control, phototherapy and systemic therapies may be considered.[4] However, the clinical course and therapeutic response vary widely among individuals, and relapses may recur after treatment discontinuation or changes in lifestyle factors. Accordingly, long-term management strategies tailored to individual patient characteristics are needed.

The patient in this case had been receiving dermatologic care, including pharmacologic treatment, for atopic dermatitis. However, relapses occurred after treatment discontinuation or changes in environmental conditions. Therefore, Ortho-Cellular Nutrition Therapy (OCNT) was initiated in this patient, and the subsequent clinical course is described in this report.

Case Study

1. Subject

This case report involved a single patient with atopic dermatitis.

1) Name: Lee OO (born in 2004 / male)
2) Diagnosis: Atopic dermatitis
3) Date of onset: October 2022
4) Treatment period: October 2022 to present
5) Chief complaints: acne, severe pruritus, exudation, fissuring, stinging pain, skin dryness, diarrhea, loose stools
6) Past medical history: From infancy through adolescence, symptoms repeatedly fluctuated, often worsening after sweating during the summer. The patient developed severe acne during adolescence. During each flare, the patient took prescribed oral medications and applied topical treatments as prescribed.
7) Social history: smoking
8) Family history: none
9) Present illness and current medications: none

2. Methods

Details of the OCNT regimen prescribed for the patient are provided in Table 1.

Results

Before OCNT initiation, periorbital hyperpigmentation secondary to atopic dermatitis was noted. The patient exhibited erythema, exudation, and bleeding associated with skin fissuring of the upper extremities, involving the dorsum of the hands, interdigital spaces, and areas extending from the shoulders to the wrists. Severe lesions were also present on the buttocks and lower extremities. Because of the visible skin lesions, the patient felt distressed and wore arm covers even during the summer when outdoors. He reported substantial impairment in daily life, including social avoidance due to psychological stress related to perceived attention from others.

Accordingly, OCNT was prescribed, and a marked improvement in erythema, exudation, and skin damage was confirmed in the affected areas approximately 7 days after OCNT initiation (Fig. 1). Concomitant improvement in facial acne lesions was also observed. One month after OCNT initiation, the patient maintained substantial overall improvement, and an additional prescription was provided to support relapse prevention. At 3 months, the patient continued management, and to date, stable, clear skin has been maintained without recurrence.

Table 1. OCNT regimen prescribed for the patient.

Details \ Prescription date		1st OCNT (2022.10)	2nd OCNT (2022.12)	3rd OCNT (2023.05)	4th OCNT (2023.07)	5th OCNT (2023.08)
Topical agents	Glycyrrhizin lotion	Apply an appropriate amount to the affected area in the morning and evening, and apply additionally when symptoms are severe (In the 3rd and 4th rounds, it is temporarily suspended due to complaints of irritation when applied)				
	Cyaplex balm	Apply an appropriate amount to the affected area in the morning and evening, and apply additionally when symptoms are severe				
	Cyaplex cream	Apply an appropriate amount to the affected area in the morning and evening, and apply additionally when symptoms are severe				
Oral formulations	Cyaplex X granules	-	-	100	101	-
	Licoplex F granules	-	-	100	101	-
	Paragon	-	-	-	101	-
	Apple vinegar powder	-	-	-	101	-
	Debactin granules	-	-	-	101	-
	Cyaplex F capsules	-	-	-	303	300
	Eufaplex alpha	-	-	-	101	-
	Haepobooster F granules	-	-	-	101	-
	Vivagin X capsules	-	-	-	101	-
	Aqua SAC pure*	-	-	-	101	-
	Heartberry black	-	-	-	101	-
	Cyaplex mineral rock salt	-	-	-	101	-
	Vivacell C capsules	-	-	-	101	100
	Bioplex F granules	-	-	-	101	-
	Caroplex capsules	-	-	-	101	100
	Diverol capsules	-	-	-		100
	Tmplex F capsules	-	-	-		100
	Vivarol capsules	-	-	-		100

※100: Once daily, take 1 sachet/1 capsule in the morning, 101: Take once in the morning and once in the evening, 1 sachet/1 capsule per dose, 300: Three times daily, take 3 sachets/3 capsules in the morning, 303: Take three times in the morning and three times in the evening, 3 sachets/3 capsules per dose

* Instructed to soak in gauze as needed and apply to the affected area.

Discussion

The patient was a Korean male in his 20s with a history of mild atopic dermatitis characterized by recurrent exacerbations and remissions from infancy through adolescence. During this period, he was treated with oral medications and topical ointment therapy in a dermatology clinic; however, symptoms continued to recur intermittently. In adulthood, the disease gradually worsened, with increases in lesion extent and severity, and became difficult to control with conventional treatment alone. His skin barrier was considered to be compromised due to long-standing atopic lesions, and topical ointment therapy alone was considered potentially insufficient and could contribute to symptom aggravation. Accordingly, OCNT was initiated to protect the skin barrier while improving atopic dermatitis symptoms.

A hyaluronic acid–based complex commonly found in Cyaplex cream and Cyaplex balm (a cyanidin–hyaluronic acid complex) was reported in a clinical trial of patients with moderate atopic dermatitis to significantly reduce disease severity, alleviate pruritus, and improve skin hydration.[5]

Beta-glucan (β-glucan) in Licoplex liquid binds to immune-cell surface receptors, including Dectin-1, thereby activating immunomodulatory signaling pathways. β-glucan may modulate inflammatory responses by regulating the production of cytokines and other inflammatory mediators. In addition, β-glucan has been reported to reduce reactive oxygen species (ROS)–mediated damage via antioxidant activity and to contribute to skin barrier repair and maintenance of skin hydration.[6]

Based on this evidence, Cyaplex cream, Cyaplex balm, and Licoplex liquid were prescribed. However, symptom improvement was limited with topical treatment alone. Accordingly, oral formulations were added in combination with topical treatment to improve systemic control of inflammation and overall skin condition.

Cyaplex F capsules and Apple vinegar powder each contain fucoidan. Fucoidan has been reported to inhibit selectins and scavenger receptors. By blocking these adhesion molecules, fucoidan has been reported to reduce neutrophil infiltration into tissues and attenuate inflammatory responses. In addition, fucoidan has been reported to inhibit the adhesion of Staphylococcus aureus to the skin. This effect may help alleviate the microbial adhesion–inflammation vicious cycle in atopic skin with impaired barrier function.[7]

Cyaplex mineral rock salt, Aqua SAC pure, and Tmplex F are mineral-based products. Cyaplex mineral rock salt serves as a mineral source derived from rock salt. Aqua SAC contains ionized calcium (Ca^{2+}) and seawater-derived magnesium (Mg^{2+}). One of the key pathophysiological mechanisms of atopic dermatitis is impaired skin barrier function. When the barrier is disrupted, external stimuli such as allergens and microorganisms can penetrate more readily. This may initiate a vicious cycle that exacerbates inflammation and pruritus. In this context, calcium (Ca^{2+}) has been proposed as a critical factor in establishing the epidermal "calcium gradient," which regulates keratinocyte differentiation and maintains skin barrier homeostasis.[8] In addition, magnesium (Mg^{2+}) has been reported to increase the expression of hyaluronan synthases (HAS2/3) in HaCaT keratinocytes following $MgCl_2$ supplementation. Through these mechanisms, magnesium is considered to contribute to skin barrier maintenance, improved hydration, and wound healing.[9]

Cyanidin and other anthocyanin-class flavonoids found in Cyaplex X granules and Heartberry black have been reported to modulate Th2-skewed immune responses and IgE-related inflammatory pathways, which play central roles in the pathophysiology of atopic dermatitis. Specifically, these

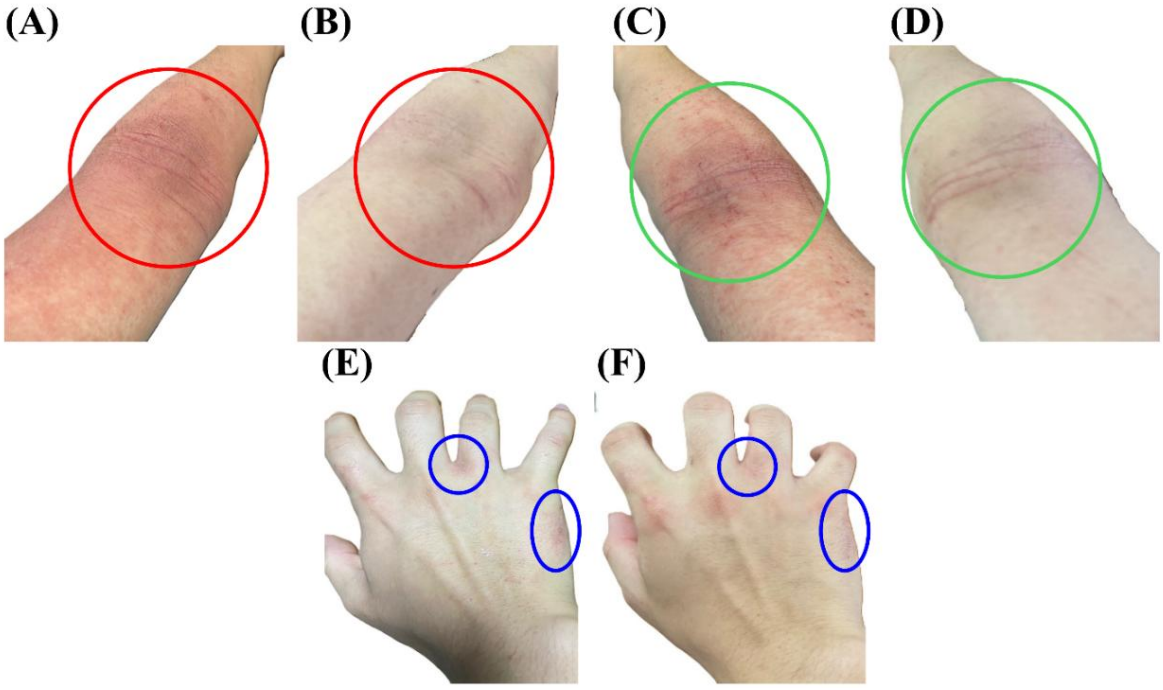

Fig. 1. Photographs of the patient's atopic dermatitis lesions before and after OCNT treatment. (A, B) Left arm, July 2023 (before) and August 2023 (after). (C, D) Right arm, July 2023 (before) and August 2023 (after). (E, F) Dorsum of the right hand and the interdigital web space between the middle and ring fingers, July 2023 (before) and August 2023 (after).

anthocyanin compounds may suppress the production of the Th2-associated cytokine IL-4 and reduce serum IgE levels, thereby limiting IgE-dependent activation of mast cells and basophils. This may lead to decreased release of inflammatory mediators, including histamine, and reduced stimulation of cutaneous nerve endings, ultimately alleviating pruritus. These mechanisms may further contribute to mitigating the vicious cycle of itch, scratching, and inflammation by suppressing skin barrier disruption caused by repetitive scratching and subsequent secondary inflammatory responses.[10]

Eufaplex alpha and Vivarol capsules both contain plant-derived oils rich in α-linolenic acid (ALA). ALA enters the n-3 fatty acid metabolic pathway in the body and influences the production of inflammatory lipid mediators. It has been reported to compete with n-6 fatty acids at the cell membrane level, thereby reducing the relative production of pro-inflammatory eicosanoids.[11] In addition, ALA and its metabolites inhibit NF-κB signaling in immune cells and exert anti-inflammatory effects that are associated with decreased production of inflammatory cytokines, including TNF-α and IL-1β.[12] Through modulation of lipid mediators and inflammatory signaling, these mechanisms may attenuate excessive immune activation under chronic inflammatory conditions.

Therefore, the OCNT implemented in this case suggests that it may have exerted pharmacological effects capable of influencing inflammatory responses and immune dysregulation involved in the pathophysiology of atopic dermatitis. In particular, an approach using various naturally derived components may have contributed to symptom improvement by supporting systemic regulation of inflammation and maintaining physiological defense mechanisms. However, as this report describes the outcome of a single case, it is limited in its ability to generalize these effects to all patients with atopic dermatitis. Nevertheless, this case represents a favorable example of symptom alleviation in an individual patient, and it is reported with the patient's informed consent.

References

1. Bylund S, Kobyletzki LB, Svalstedt M, Svensson Å. Prevalence and Incidence of Atopic Dermatitis: A Systematic Review. Acta Derm Venereol. 2020;100(12):adv00160.

2. Yue C, Zhou H, Wang X, Yu J, Hu Y, Zhou P, et al. Atopic dermatitis: pathogenesis and therapeutic intervention. MedComm (2020). 2024;5(12):e70029.

3. Jeskey J, Kurien C, Blunk H, Sehmi K, Areti S, Nguyen D, et al. Atopic Dermatitis: A Review of Diagnosis and Treatment. J Pediatr Pharmacol Ther. 2024;29(6):587-603.

4. Eichenfield LF, Tom WL, Berger TG, Krol A, Paller AS, Schwarzenberger K, et al. Guidelines of care for the management of atopic dermatitis: section 2. Management and treatment of atopic dermatitis with topical therapies. J Am Acad Dermatol. 2014;71(1):116-32.

5. De Vita F, Ferravante A, Vecchi G, Nobile V, Giori AM. Evaluation of the Efficacy of IALUSET VITAL® Cream in Helping the Improvement of the Atopic Dermatitis Symptoms in Adults: A Randomized, Double Blind, Vehicle-Controlled Clinical Trial. Allergies. 2021;1(4):195-205.

6. Feng X, Shang J, Wang Y, Chen Y, Liu Y. Exploring the Properties and Application Potential of β□ Glucan in Skin Care. Food Science & Nutrition. 2025;13(4):e70212.

7. Park AY, Bourtembourg M, Chrétien A, Hubaux R, Lancelot C, Salmon M, et al. Modulation of gene expression in a sterile atopic dermatitis model and inhibition of Staphylococcus aureus adhesion by fucoidan. Dermatopathology. 2021;8(2):69-83.

8. Lee SE, Lee SH. Skin barrier and calcium. Annals of dermatology. 2018;30(3):265.

9. Marunaka K, Shu S, Kobayashi M, Goto M, Katsuta Y, Yoshino Y, et al. Elevation of hyaluronan synthase by magnesium supplementation mediated through the activation of GSK3 and CREB in human keratinocyte-derived HaCaT cells. International Journal of Molecular Sciences. 2021;23(1):71.

10. Kim KH, Choung SY. Oral administration of Vaccinium uliginosum L. extract alleviates DNCB-induced atopic dermatitis in NC/Nga mice. J Med Food. 2014;17(12):1350-60.

11. Araujo P, Belghit I, Aarsæther N, Espe M, Lucena E, Holen E. The effect of omega-3 and omega-6 polyunsaturated fatty acids on the production of cyclooxygenase and lipoxygenase metabolites by human umbilical vein endothelial cells. Nutrients. 2019;11(5):966.

12. Takić M, Ranković S, Girek Z, Pavlović S, Jovanović P, Jovanović V, et al. Current Insights into the Effects of Dietary α-Linolenic Acid Focusing on Alterations of Polyunsaturated Fatty Acid Profiles in Metabolic Syndrome. International Journal of Molecular Sciences. 2024;25(9):4909.