

세포교정영양요법(OCNT)을 이용한 광과민성 알레르기 개선 사례

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A Case of Improvement of Photosensitivity Allergy Using Ortho-Cellular Nutrition Therapy (OCNT)

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ABSTRACT

Objective: Photosensitivity, commonly known as sun allergy, is a type of delayed hypersensitivity reaction that occurs when specific exogenous substances come into contact with the skin and the area is subsequently exposed to ultraviolet or visible light. Photosensitivity is accompanied by erythema, redness, burning sensation, pruritus, and pain, and in severe cases vesicles or blisters may develop. To minimize these reactions, it is necessary to reduce contact with the causative substances and limit exposure to ultraviolet and visible light, but these measures have limitations in achieving fundamental improvement of symptoms.

Case Report: This case involved a Korean woman in her 40s who presented with symptoms such as erythema and redness due to photosensitivity. After the onset of photosensitivity, she experienced discomfort in daily life, including limitations in daytime activities, along with recurrent exacerbations of her symptoms. Therefore, Ortho-Cellular Nutrition Therapy (OCNT) was applied using anthocyanins, omega-3 fatty acids, glycyrrhizin, vitamin D, methylsulfonylmethane (MSM), minerals, hyaluronic acid, and plant-based oils. As a result, overall symptoms such as erythema and redness improved, and she was able to carry out daytime activities without difficulty, with a consequent improvement in quality of life.

Conclusion: Because this case involved a single patient, there are limitations in applying the same OCNT regimen to other patients with photosensitivity. However, it is considered meaningful that OCNT improved the symptoms of photosensitivity and the associated discomfort.

Keywords Ortho-Cellular Nutrition Therapy (OCNT), Photosensitivity, Immune response, Moisture

Introduction

Prolonged exposure of the skin to sunlight, particularly ultraviolet radiation, can induce various skin disorders. These conditions are collectively referred to as photosensitive dermatoses or photodermatoses. Photodermatoses can be broadly classified into four categories according to their causes: immunologically mediated, drug- or chemical-induced, photoaggravated, and genetic.¹

Photosensitivity, commonly known as sun allergy, is defined as a type of delayed hypersensitivity reaction that occurs when specific exogenous substances are in contact with the skin and

the area is subsequently exposed to ultraviolet or visible light. Cases of this condition have been reported since the 1960s. In photosensitivity, substances such as fragrances, plants, cosmetics, or sunscreens that come into contact with the skin, as well as drugs including nonsteroidal anti-inflammatory drugs (NSAIDs), antimicrobial agents, and anticancer agents, act as antigens and form antigenic haptens in the presence of ultraviolet or visible light. When the skin is later re-exposed to ultraviolet or visible light, immune and cytotoxic responses are triggered, and symptoms develop within several hours to a few days.²

When symptoms develop, they usually present in the form of dermatitis. Typical manifestations include intense erythema, burning sensation, pruritus, and pain, and in severe cases vesicles or blisters may occur. Because these symptoms are generally confined to areas exposed to visible or infrared light, there may be a clear demarcation between the lesions and areas covered by clothing or hair, and relatively shaded regions such as the submandibular area, behind the ears, the axillae, and skin folds tend to be less affected.³

Because photosensitivity manifests only in the presence of light, it must be clearly distinguished from ordinary allergic contact dermatitis, which can occur even in the absence of light.

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Therefore, diagnosis should be based on careful history taking through patient interviews, thorough examination of all lesion sites, and appropriate use of tests such as patch testing and other tissue examinations. For treatment, exposure to light sources such as sunlight should first be minimized, and acute symptoms are relieved with agents such as corticosteroids and antihistamines. Subsequently, it is necessary to continuously minimize exposure to light and contact with allergenic substances and to follow the patient over time. However, for fundamental improvement of symptoms, there are limitations to relying only on medication at the time of symptom onset and avoidance of causative substances, so understanding and modifying the mechanisms of photosensitivity has become increasingly important.³

This case involved a Korean woman in her 40s who complained of discomfort in daily life due to photosensitivity. Ortho-Cellular Nutrition Therapy (OCNT) was applied to this patient, and she showed significant improvement in symptom relief and quality of life. Therefore, this case is reported with the patient's consent.

Case Report

1. Subject

One case of a patient with photosensitivity was studied.

- 1) Name: Kim OO (49 years old / F)
- 2) Diagnosis: photosensitivity
- 3) Onset: July 2024
- 4) Treatment period: July 2025 to the present
- 5) Chief complaints: erythema, pruritus, vesicles, and cystitis due to photosensitivity
- 6) Medical history: none
- 7) Social history: none
- 8) Family history: none
- 9) Current conditions and medications: none

2. Methods

The following OCNT was prescribed for the patient.

- Oral formulations
 - Cyaplex A granules (101, twice daily, 1 sachet per dose)
 - Eufaplex Alpha (101, twice daily, 1 sachet per dose)
 - Licoplex F granules (101, twice daily, 1 sachet per dose)
 - Caroplex F granules (100, once daily, 1 sachet per dose)
 - Diverol capsules (022, twice daily, 2 capsules per dose)
 - Aqua SAC pure (100, once daily, 1 sachet per dose)
 - Cyaplex mineral rock salt (101, twice daily, 1 sachet per dose)
 - Cyaplex mineral bamboo salt (100, once daily, 1 sachet per dose)
- Topical formulations
 - Cyaplex Cleansing Bar
 - Cyaplex Cream
 - Cyaplex Liposome Portable Stick
 - Licoplex Liquid

The patient was instructed to use Cyaplex Cleansing Bar for routine facial cleansing and to apply Cyaplex Cream to the face in the morning and evening. She was also advised to use Cyaplex Liposome Portable Stick as needed and to additionally apply Licoplex Liquid when her symptoms worsened.

Results

Before initiation of OCNT, the patient showed erythema and redness on the facial and periorbital skin, and vesicles were observed in some areas. After approximately 20 days of OCNT, these symptoms were markedly alleviated, and she reported that symptoms almost no longer occurred even when exposed to sunlight. The severity of her symptoms and the condition of the skin during the OCNT period are shown in Fig. 1 and Table 1.

Table 1. Severity of symptoms reported by the patient during OCNT. Higher scores from 0 to 5 indicate greater discomfort experienced by the patient.

Symptoms	Date	
	2025.07.05	2025.07.25
Symptoms due to photosensitivity	5	1
Cystitis	3	1
Skin dryness	5	1

0: No symptoms and no impact on daily activities; 1: Mild symptoms with minimal impact on daily activities; 2: Noticeable symptoms requiring minor adjustments in daily activities; 3: Symptoms significantly affect daily activities, making some tasks difficult; 4: Major difficulty performing tasks during daily activities; 5: Symptoms severely interfere with daily activities, causing substantial distress

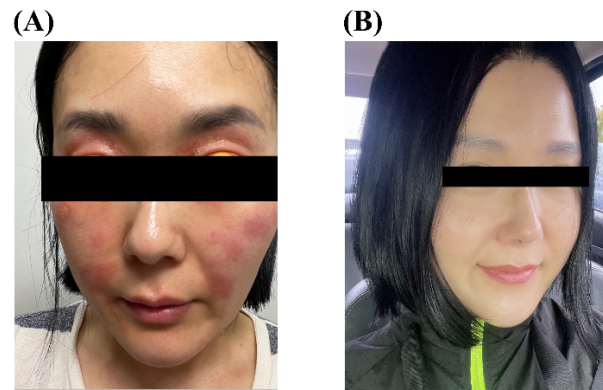


Fig. 1. Facial photographs of the patient during the OCNT period. (A) July 5, 2025, (B) early August 2025. As OCNT progressed, erythema on the patient's cheeks and around the eyes improved.

Discussion

The patient in this case was a Korean woman in her 40s who reported that photosensitivity had developed approximately one year before the initiation of OCNT. Because of this, her daytime outdoor activities, such as exercising in the sun, were restricted, and she had received hospital treatment and taken medications. However, there was no significant improvement in her symptoms, and she continued to experience recurrent episodes and worsening of symptoms. She therefore visited a pharmacy, and the direction of symptom management was determined through history taking and counseling.

Allergies arise when the body's immune system overreacts and produces symptoms. Therefore, OCNT was applied with the aim of modulating excessive immune responses and alleviating symptoms by controlling the resulting inflammation. In addition,

it was intended to strengthen overall physical condition by enhancing antioxidant capacity, providing adequate skin hydration, and reinforcing the skin barrier. Furthermore, because the patient reported feeling dryness despite frequently drinking water, OCNT was also designed to improve the efficiency of hydration.

First, both oral and topical formulations were used to help regulate overall immune and inflammatory responses and to improve allergic reactions. The components selected for the oral formulations were omega-3 fatty acids, glycyrrhizin, vitamin D, and anthocyanins, whereas the key ingredients in the topical formulations were methylsulfonylmethane (MSM) and dipotassium glycyrrhizate (DPG).

Omega-3 fatty acids influence the fatty acid composition of phospholipids in cell membranes, thereby affecting transcription factor activity and gene expression patterns and helping regulate systemic metabolic conditions. Through these actions, they can modulate the function of inflammatory cells and contribute to overall control of inflammation.⁴ Glycyrrhizin, which can be extracted from licorice, has been reported to exert favorable effects on inflammation by regulating the expression of inflammatory cytokines such as tumor necrosis factor- α (TNF- α) and interleukin (IL)-6 and by inhibiting nuclear factor kappa B (NF- κ B) signaling. In particular, it has been reported to help suppress allergy by inhibiting high mobility group box 1 (HMGB1), a protein that is frequently upregulated in allergic diseases.⁵

Vitamin D is known to contribute to calcium and bone homeostasis. However, many studies have shown that it is also an essential nutrient for maintaining appropriate immune responses because it is involved in the proliferation and functional regulation of various immune cells, including macrophages, neutrophils, T cells, and B cells.⁶ Finally, anthocyanins have been shown to modulate various signaling pathways that regulate the activation and proliferation of immune cells such as T cells, macrophages, and dendritic cells and to increase the expression of genes related to immune cell activation.⁷ These nutrients are abundantly contained in Eufaplex Alpha, Licoplex F granules, Diverol capsules, and Cyaplex A granules, respectively, and the above oral formulations were prescribed to provide each of these nutrients.

In addition, Cyaplex Cleansing Bar and Licoplex Liquid were prescribed for topical use to help improve cutaneous inflammation and enhance antioxidant capacity. MSM, one of the main active ingredients in Cyaplex Cleansing Bar, can help reduce reactive oxygen species and exert anti-inflammatory and antioxidant effects by inhibiting NF- κ B and modulating the Nrf2 pathway. It also has high membrane permeability and good tissue penetration and is therefore used in topical preparations to deliver other beneficial components over a wider area.⁸ Licoplex Liquid contains DPG, which is a potassium salt form of purified glycyrrhizic acid derived from licorice. This ingredient has been shown in animal studies to have anti-inflammatory effects and is currently used in various cosmetic products to reduce skin inflammation and support the penetration of other active ingredients.⁹

The patient reported that she usually drank sufficient amounts of water but still felt dryness in her body. This was considered to be due to water intake without adequate mineral supplementation. Therefore, Aqua SAC pure, Cyaplex mineral rock salt, and Cyaplex mineral bamboo salt were prescribed to

provide appropriate minerals. In a randomized controlled trial, young and older adults were given plain water or beverages containing added salt or other components, and the Beverage Hydration Index (BHI) was measured to evaluate residual body water. The group that consumed water with added salt showed a higher BHI than the group that consumed plain water.¹⁰ These findings suggest that adequate intake of minerals such as salt is important for maintaining body water.

It was further considered that basic skin hydration and reinforcement of the skin barrier were necessary to improve and maintain the patient's skin condition. Therefore, OCNT was prescribed to achieve these goals. Cyaplex Cream contains a high level of hyaluronic acid. Hyaluronic acid readily penetrates the soft tissues of the skin and is known to help increase skin hydration and promote collagen production, and numerous clinical trials have been conducted, leading to its widespread clinical use.¹¹ In addition, the topical preparations, including Cyaplex Liposome Portable Stick, contain plant-based oils such as sunflower seed oil, coconut oil, and olive oil. Depending on the type, these plant oils are known to help improve the skin barrier and promote tissue regeneration, thereby having a positive effect on overall skin health.¹² Through these components, OCNT was intended to help improve the overall skin condition of the patient, which had been damaged by allergic reactions.

Through the OCNT regimen described above, the patient experienced significant improvement in erythema and redness associated with photosensitivity, and allergic reactions during daytime activities were markedly alleviated so that she reported little functional limitation in daily life. In addition, owing to the patient's strong motivation for treatment and adherence to lifestyle management, the OCNT period, which had initially been planned for three months, was shortened to approximately 20 days. She is currently continuing OCNT by regularly taking Cyaplex mineral rock salt, Cyaplex mineral bamboo salt, and Diverol capsules. Because this case involves a single patient, there are limitations in applying the same OCNT regimen to all patients with photosensitivity. Nevertheless, it is considered meaningful that OCNT tailored to the patient's condition improved photosensitivity reactions and symptoms and enhanced quality of life. Therefore, this case is reported with the patient's consent.

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