

## 세포교정영양요법(OCNT)을 이용한 백반증 개선 사례

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### A Case Study on the Improvement of Vitiligo Using Ortho-Cellular Nutrition Therapy (OCNT)

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#### ABSTRACT

**Objective:** Report on the improvement of vitiligo through Ortho-Cellular Nutrition Therapy.

**Methods:** OCNT was applied for approximately three months to a Korean male in his 60s experiencing symptoms of vitiligo.

**Results:** After implementing OCNT, significant improvements were observed in the areas affected by white patches of vitiligo.

**Conclusion:** The application of OCNT can be helpful in alleviating symptoms for patients with vitiligo.

**Keywords:** Ortho-Cellular Nutrition Therapy (OCNT), Vitiligo, Leukoderma

#### Introduction

Vitiligo is a common skin depigmentation disorder, estimated to affect about 0.5–2% of the global population. It is a polygenic disorder characterized by the functional loss of melanocytes. The pathogenesis includes genetic factors, autoimmune responses, oxidative stress, and mechanisms of melanocyte detachment, among others. Oxidative stress damages melanocytes and triggers an immune response. Notably, interferon-gamma (IFN- $\gamma$ ) recruits autoreactive CD8+ T cells to the skin and activates the JAK-STAT pathway, promoting the secretion of inflammatory cytokines and chemokines. This leads to the progressive destruction of melanocytes and the appearance of various forms of vitiligo.<sup>1</sup>

Vitiligo is classified into two major types: Segmental Vitiligo (SV), which affects specific skin segments, and Non-segmental Vitiligo (NSV), which can appear in various locations and includes multiple variants. This classification can be based on the evolutionary pattern of the depigmented areas. It is divided into a few categories, including localized vitiligo and facial vitiligo. Localized vitiligo can initially appear in small areas but progress to either segmental or non-segmental forms over time, or it does not belong to any specific category. Facial vitiligo initially appears on the face but may spread to become generalized or universal vitiligo.<sup>2</sup>

Vitiligo significantly impacts daily life and personal relationships, affecting the quality of life. Treatments include topical and oral corticosteroids, calcineurin inhibitors, topical vitamin D3 analogues, antioxidants, and phototherapy. Surgical treatments or depigmentation techniques are also employed.<sup>3</sup> However, these treatments do not guarantee effectiveness for all patients and can result in a 40% relapse rate within the first year after discontinuation of treatment.<sup>4</sup>

In Korea, the prevalence rate of vitiligo between 2009 and 2011 was approximately 0.13% annually, which is lower than in Japan but similar to two epidemiological studies in China.<sup>5</sup>

This case concerns a patient who reported symptoms of vitiligo and showed significant improvement after being prescribed Ortho-Cellular Nutrition Therapy (OCNT), with the patient's consent obtained for case reporting.

#### Case Study

##### 1. Subject

One case of a vitiligo patient was studied.

- 1) Name: Jo O O (M/61)
- 2) Diagnosis: Vitiligo (Leukoderma)
- 3) Onset date: March 2023
- 4) Treatment period: March 2024 – May 2024
- 5) Symptoms: A few parts of the face and ears turning white due to depigmentation
- 6) Past medical history: None
- 7) Social history: Occasional alcohol consumption
- 8) Family history: None
- 9) Current medical condition and medication: None

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## 2. Methods

Cyaplex X granules (101, twice daily, one packet per dose)  
Nutaplex granules (101, twice daily, one packet per dose)  
Heartberry black (101, twice daily, one packet per dose)

## Results

The patient reported spots around his face and ears and visited a pharmacy for these symptoms. OCNT was prescribed accordingly. After three months, the white patches had significantly lightened, and a phenomenon of black dots appearing within the white patches was observed, indicating improvement in vitiligo (Fig. 1). This case represents a significant improvement with relatively simple and small doses of OCNT.

About 30 years ago, a 13-year-old male patient with vitiligo was recommended herbal decoctions for six months, and after completing the prescription, his vitiligo improved. However, this OCNT case showed faster improvement effects than the previous case with traditional herbal medicine prescriptions.

## Discussion

The patient, a 61-year-old Korean male who works simultaneously in a Korean restaurant and in demolition, visited a pharmacy in early March 2024 due to symptoms of vitiligo. Recent developments of patches around his forehead and ears were observed and diagnosed as skin vitiligo. If this vitiligo is due to an autoimmune disease, complications such as thyroid disorders, alopecia areata, diabetes, pernicious anemia, and lupus could arise.<sup>6</sup> The patient was informed about these potential complications and Ortho-Cellular Nutrition Therapy (OCNT) was initiated.

While vitiligo can have various causes, this patient was thought not to have a genetic factor, and oxidative stress was considered the primary cause. Oxidative stress damages the antioxidant defense of the cells and can harm various cellular processes in melanocytes, leading to the failure and apoptosis of melanocytes. These can then be absorbed by Langerhans cells (LC) or Dendritic cells (DC). When these cells are activated, they can trigger an immune response against melanocytes in the skin, removing melanin cells and causing depigmentation.<sup>7</sup> Therefore, it is crucial to neutralize reactive

oxygen species to reduce cell damage and protect the function of melanocytes, which necessitates strong antioxidants.

The antioxidant effect of the anthocyanins in Cyaplex X primarily stems from their ability to eliminate reactive oxygen species. Anthocyanins possess high antioxidant activity that can mitigate oxidative stress occurring within cells. Additionally, the metabolites of anthocyanins also have antioxidant effects, and the metabolites produced through intestinal fermentation can perform antioxidative functions.<sup>8</sup>

Furthermore, anthocyanins, which belong to the flavonoids, aid in regulating the balance of T cells. Th1 cells are primarily involved in autoimmune responses, while Th2 cells are involved in allergic reactions. Flavonoids regulate the balance between these two types of T cells, thus modulating immune responses. Such responses play a critical role in autoimmune diseases.<sup>9</sup>

Nutaplex's chlorella also has antioxidant effects similar to anthocyanins, removing reactive oxygen species and regulating immune responses, which helps in improving symptoms of autoimmune diseases.<sup>10,11</sup>

Lastly, Heartberry black contains the previously mentioned anthocyanins and is also enriched with vitamin C, which supports antioxidative actions<sup>12</sup> and is thought to have contributed to symptom improvement.

This case report has limitations in universally applying to all vitiligo patients. However, the relatively rapid improvement of vitiligo symptoms following a simple OCNT regimen is considered significant. Therefore, this report is being made with the patient's consent.

## References

1. Bergqvist C, Ezzedine K. Vitiligo: a review. *Dermatology*. 2020;236(6):571-592.
2. Ezzedine K, Lim H, Suzuki Ta, et al. Revised classification/nomenclature of vitiligo and related issues: the Vitiligo Global Issues Consensus Conference. *Pigment*

(A)



(B)



**Fig. 1. Changes in the vitiligo symptoms of the patient before and after OCNT.** (A) Photo taken before starting OCNT, (B) Photo taken 3 months after implementing OCNT. After conducting OCNT, the white spots significantly lightened, and the formation of black spots within the white spots confirmed the treatment's starting point.

*cell & melanoma research*. 2012;25(3):E1-E13.

3. Daniel BS, Wittal R. Vitiligo treatment update. *Australasian Journal of Dermatology*. 2015;56(2):85-92.
4. Frisoli ML, Essien K, Harris JE. Vitiligo: mechanisms of pathogenesis and treatment. *Annual review of immunology*. 2020;38(1):621-648.
5. Lee H, Lee MH, Lee DY, et al. Prevalence of vitiligo and associated comorbidities in Korea. *Yonsei Med J*. May 2015;56(3):719-25. doi:10.3349/ymj.2015.56.3.719
6. Dahir AM, Thomsen SF. Comorbidities in vitiligo: comprehensive review. *Int J Dermatol*. Oct 2018;57(10):1157-1164. doi:10.1111/ijd.14055
7. Glassman SJ. Vitiligo, reactive oxygen species and T-cells. *Clinical Science*. 2011;120(3):99-120.
8. Tena N, Martín J, Asuero AG. State of the Art of Anthocyanins: Antioxidant Activity, Sources, Bioavailability, and Therapeutic Effect in Human Health. *Antioxidants*. 2020;9(5):451.
9. González-Gallego J, García-Mediavilla MV, Sánchez-Campos S, Tuñón MJ. Anti-inflammatory and immunomodulatory properties of dietary flavonoids. *Polyphenols in human health and disease*. Elsevier; 2014:435-452.
10. Bito T, Okumura E, Fujishima M, Watanabe F. Potential of Chlorella as a Dietary Supplement to Promote Human Health. *Nutrients*. 2020;12(9):2524.
11. Rodriguez-Garcia I, Guil-Guerrero JL. Evaluation of the antioxidant activity of three microalgal species for use as dietary supplements and in the preservation of foods. *Food Chemistry*. 2008/06/01/ 2008;108(3):1023-1026.
12. Bendich A, Machlin LJ, Scandurra O, Burton GW, Wayner DDM. The antioxidant role of vitamin C. *Advances in Free Radical Biology & Medicine*. 1986/01/01/ 1986;2(2):419-444.