





## 세포교정영양요법(OCNT)을 이용한 탈모 개선 사례

이종섭 약사 전라남도 순천시 봉화3길 14 명성온누리약국

# Improvement in Hair Loss Using Ortho-Cellular Nutrition Therapy (OCNT): A Case Study

Pharmacist, Jongseop Lee

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

#### **ABSTRACT**

**Objective:** Report on the improvement of hair loss symptoms through Ortho-Cellular Nutrition Therapy (OCNT).

Methods: A woman in her 40s concerned about M-pattern hair loss on her forehead was treated with OCNT.

**Results:** After implementing OCNT, there was a significant improvement in the hair density and thickness in the affected areas.

**Conclusion:** OCNT can help improve symptoms in patients with hair loss.

**Keywords:** Ortho-Cellular Nutrition Therapy (OCNT), hair loss, immune response

#### Introduction

The hair growth cycle in follicles consists of three repeating phases: the anagen phase where hair grows, the catagen phase where hair stops growing and remains in the follicle, and the telogen phase, a resting period where the hair falls out and no new hair grows. If this cycle fails to function properly over a wide area, resulting in hair falling out and failing to regrow, it can be diagnosed as hair loss.

Hair loss is classified into various types based on the pattern of symptoms related to the hair growth cycle and can be broadly divided into localized hair loss and diffuse hair loss. Examining in detail, localized hair loss includes alopecia areata, where hair falls out in circular patches, tinea capitis caused by fungal infections of the scalp, traction alopecia caused by excessive tension on hair, and trichotillomania where the individual repeatedly pulls out their own hair due to an uncontrollable urge. Additionally, localized hair loss can occur as scarring alopecia due to injuries.<sup>1</sup>

Types of diffuse hair loss include systemic alopecia, where hair loss occurs chronically across the scalp or body, telogen effluvium and anagen effluvium, occurring during the resting and growing phases of hair respectively, and gender-specific

\*Correspondence: Jongseop Lee E-mail: ljwo1108@naver.com

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patterns like male and female pattern hair loss.<sup>2</sup>

Particularly, male and female pattern baldness are the most commonly observed symptoms among types of diffuse hair loss. Both conditions show a thinning of the individual hair density, but the areas of hair loss differ. In male pattern baldness, hair loss typically appears at the front of the head in an M-shape or as thinning at the crown. However, female pattern baldness generally exhibits a thinning of hair primarily at the crown.<sup>3</sup> Yet, it is also possible for women to exhibit symptoms of male pattern baldness and vice versa.<sup>4</sup>

These symptoms can have various causes. Commonly, autoimmune responses due to abnormalities in the immune system or imbalances in androgen or thyroid hormones can induce hair loss. Certain diseases like dermatitis and leukemia are also known to be associated, and some medications have been identified as causing hair loss. Additionally, nutritional imbalances may also be linked to hair loss. Thus, it is becoming increasingly important to apply appropriate treatments considering the patient's condition and medical history.

The patient in this case study was suffering from hair loss symptoms on the frontal part of the head and showed significant improvement following treatment with Ortho-Cellular Nutrition Therapy (OCNT).

#### **Case Study**

A case study was conducted on one case of a hair loss patient.

#### 1. Subject

1) Name: Hwang OO (F, 48 years old)

2) Diagnosis: Hair loss3) Date of onset: June 2018

4) Treatment duration: April 2023 to present

5) Primary symptoms: Alopecia

6) Medical history: Prediabetes diagnosed, slightly elevated cholesterol levels

7) Social history: Stress and overwork 8) Family history: Father has diabetes

9) Medications and Treatments Applied: Chronic lymphocytic leukemia, fatigue, appetite loss, anemia, taking Feroba-You tablets.

#### 2. Methods

The OCNT was prescribed as follows:

- First Phase OCNT (April 2023 to September 2023) Vivagin X Capsules (101, twice a day, one capsule each time) Selenplex Capsules (101, twice a day, one capsule each time)
- Second Phase OCNT (September 2023 to December 2023) Vivagin X Capsules (100, once a day, one capsule each time) Selenplex Capsules (100, once a day, one capsule each time)
- Third Phase OCNT (January 2024 to April 2024) Vivagin X Capsules (100, once a day, one capsule each time) Selenplex Capsules (100, once a day, one capsule each time) Sulfoplex PK Tablets (002, once a day, two tablets each time) Collaplex Granules (001, once a day, one sachet each time)
- Fourth Phase OCNT (April 2024 to August 2024) Vivagin X Capsules (100, once a day, one capsule each time) Selenplex Capsules (100, once a day, one capsule each time) Sulfoplex PK Tablets (002, once a day, two tablets each time) Morangmorang Booster Capsules (002, once a day, two capsules each time)
- Fifth Phase OCNT (August 2024 to present) Vivagin X Capsules (100, once a day, one capsule each time) Selenplex Capsules (100, once a day, one capsule each time) Sulfoplex PK Tablets (002, once a day, two tablets each time) Morangmorang Booster Capsules (002, once a day, two capsules each time)

Caroplex F Granules (001, once a day, one sachet each time) Cyaplex Mineral Rock Salt (100, once a day, one sachet each time)

### Results

The patient had long been troubled by M-pattern baldness on her scalp. However, she had not been undergoing any specific treatment and was diagnosed with leukemia, which made other treatments difficult. Therefore, OCNT was used to induce hair loss improvement.

From the point of administering the fourth phase of OCNT, there was a significant improvement in hair loss symptoms. An increase in overall hair density and thickness in the affected areas was observed (Fig. 1.). Additionally, the discomfort caused by hair loss began to decrease significantly from the start of the fourth phase OCNT (Table 1).

#### **Discussion**

The patient in this case is a woman in her 40s who has long been troubled by M-pattern baldness on her forehead. She appeared generally frail at the time of for a long time her visit and reported that she had been struggling with hair loss.

After a medical examination, she was diagnosed with leukemia, and nutrient depletion and a decrease in immunity caused by the disease were presumed to be reasons of hair loss. Therefore, OCNT was decided to be used to provide nutrients that could help improve hair loss and enhance immunity to address the symptoms of hair loss.

To supply nutrients beneficial for scalp and hair health, various OCNT were applied. Biotin is known to aid in hair and skin health, and a deficiency can accelerate hair loss, making adequate intake essential. Thus, Morangmorang Booster capsules, which are rich in this ingredient, were used to facilitate its intake.

The main component of Sulfoplex, methylsulfonylmethane (MSM), is a form of organic sulfur that helps strengthen the skin barrier and hair. A study confirmed that continuous intake of MSM improved skin elasticity and texture. Additionally, supplying collagen has been shown through research to assist in improving hair thickness and reducing symptoms of dry hair. Hence, Collaplex was used to provide high-quality collagen.

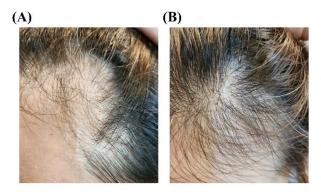


Fig. 1. Changes in the patient's scalp and hair condition after implementing OCNT. (A) Before OCNT, (B) After OCNT. An increase in overall hair density and thickness after OCNT can be observed.

**Table 1. Indicator of symptoms experienced by the patient during OCNT.** The discomfort level experienced by the patient increases from 0 to 5.

Symptoms	First Phase	Second Phase	Third Phase	Fourth Phase	Remarks
Hair Loss	5	4	3	1	Symptoms progressivel y improved and then significantly after the 4th phase of OCNT.

<sup>\* 0:</sup> No symptoms, no impact on daily life, 1: Mild symptoms, almost no impact on daily life, 2: Moderate symptoms, slight adaptation needed for daily activities, 3: Significant symptoms, difficulty in performing some activities, 4: Severe difficulty in performing daily activities. 5: Daily life significantly impacted, causing severe stress.

Furthermore, OCNT was utilized to enhance immune function. Selenium, the main ingredient in Selenplex, is one of the essential trace elements known for its critical role in cellular metabolism regulation, survival, and immune response modulation. It particularly aids in improving immunity by regulating various immune cells involved in innate immune responses such as macrophages, NK cells, dendritic cells, and adaptive immune responses involving B cells and T cells.<sup>9</sup>

Besides selenium, there are several nutrients known to boost immunity, among which vitamin C is prominent. Extensive research exists on the concentration of vitamin C in monocytes and neutrophils; deficiency in vitamin C is known to negatively affect their metabolic pathways, reducing their activity. Moreover, vitamin D is converted into the form of 1,25(OH)<sub>2</sub>D in the body, which plays a crucial role in innate immunity by stimulating Toll-like receptors. This process helps to enhance the overall immune capabilities of the body.

Improving immunity involves not only vitamins but also the intake of various trace minerals, among which zinc and manganese are well-known. Zinc plays a critical role in regulating the activity of various enzymes and immune mediators in the body, as well as controlling lymphocyte apoptosis, which in turn regulates immune responses. <sup>12</sup> Adequate intake of manganese positively affects antibody synthesis and secretion. <sup>13</sup> The mentioned vitamins and minerals were supplied through Vivagin X, and it is believed that the synergistic effects of these components significantly improved the patient's immunity.

Thanks to OCNT utilizing these nutrients, the patient's hair loss symptoms were significantly improved. Furthermore, the patient's satisfaction with OCNT was also high, as confirmed by the indicators felt by the patient.

This case study was conducted on a single patient, which limits its universal application to all hair loss patients. However, it is considered meaningful that a simple OCNT significantly improved the patient's hair loss symptoms, leading to notable restoration of the patient's overall appearance and self-esteem. Thus, this case is reported with the patient's consent.

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