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Case Report

세포교정영양요법(OCNT)을 이용한 염증성 탈모 개선 사례

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A Case Study on the Improvement of Inflammatory Hair Loss Using Ortho-Cellular Nutrition Therapy (OCNT)

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ABSTRACT

Objective: Inflammation is one of the mechanisms through which the body protects itself from external pathogens and foreign substances. It can arise from various causes, including tissue damage, infections, and antigen-antibody reactions. If not properly managed, it can lead to inflammatory hair loss, significantly disrupting daily life. Therefore, accurate identification of the underlying causes and appropriate treatment are essential.

Case Report: This case study involved a Korean male in his 40s who experienced inflammation and inflammatory hair loss caused by a lipoma. The patient reported discomfort due to frequent episodes of inflammation and alopecia areata on the occipital region. Ortho-Cellular Nutrition Therapy (OCNT) was applied, utilizing anthocyanins, omega-3, bamboo leaf extract, methylsulfonylmethane (MSM), and plant-based oils. As a result, significant reductions in redness and swelling in the occipital area were observed, along with notable improvement in the symptoms of alopecia areata.

Conclusion: This case demonstrated that OCNT could significantly improve inflammation-related symptoms and associated hair loss in the patient. The study also highlighted the usefulness of tailoring OCNT prescriptions to suit the patient's symptoms and condition. However, as this research is limited to a single case, follow-up observation is necessary to confirm the sustainability of the improved condition.

Keywords Ortho-Cellular Nutrition Therapy (OCNT), inflammation, inflammatory alopecia, lipoma

Introduction

Inflammation is an immune response that occurs throughout the body to protect it from external pathogens or damage, acting as a defense mechanism. Inflammation can be classified as either acute or chronic. Acute inflammation contributes to repairing tissue damage or eliminating infections, whereas chronic inflammation can cause tissue damage and various diseases. This inflammatory response is characterized by the accumulation of immune cells around the damaged tissue and the secretion of inflammatory mediators such as cytokines. If inflammation is not properly managed, it can accelerate tissue damage or lead to secondary complications.

Hair loss caused by inflammation is relatively common, with various cases reported. For instance, alopecia areata occurs in approximately 2% of the population and is caused by inflammation of hair follicles due to an autoimmune response.[1] In addition, scalp folliculitis and scar alopecia are also known as major causes of inflammatory hair loss. This phenomenon is referred to as inflammatory hair loss, with various etiologies such as scalp disease-related inflammation, autoimmune diseases, and scar alopecia. Treating inflammation appropriately in the early stages is especially important, as this can prevent or minimize hair loss. Therefore, managing scalp health and inflammation is crucial.

The causes of inflammation are very diverse. For example, tissue damage due to trauma, bacterial infections, viral infections, and autoimmune responses can all trigger inflammation. Among these, lipomas are benign tumors made up of mature fat cells, typically occurring in the subcutaneous tissue as antigens, and are relatively common, affecting about 1% of the general population.[2] Lipomas can sometimes be recognized as antigens, triggering an immune response and leading to an inflammatory condition. While they are typically painless, they can cause pain and functional discomfort if they grow in size or become inflamed.

Such lipomas occur on parts of the body like the head, neck, shoulders, and back. When lipomas are recognized as antigens,

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they can trigger an immune response, leading to an inflammatory condition. Specifically, when lipomas on the scalp cause inflammation or grow large enough to compress hair follicles, blood circulation in the affected area can be impaired. While this is rare, it can hinder the supply of oxygen and nutrients to the hair follicles, negatively affecting hair growth. This mechanism is supported by studies that suggest a connection between scalp inflammation and hair loss.[3]

The patient in this case study developed an inflammatory response in a lipoma near the occipital area, leading to a rare localized hair loss. Nutritional therapy using Ortho-Cellular Nutrition Therapy (OCNT) was applied to alleviate inflammation and improve symptoms, and the progress is reported here.

Case Study

1. Subject
The case involved a patient with inflammatory alopecia:

1) Name: Kim OO (49 years old / M)
2) Diagnosis: Inflammatory alopecia
3) Time of onset: 2023
4) Treatment period: From September 17, 2024 to present
5) Chief complaint: Inflammation and alopecia areata caused by inflammation
6) Past medical history: Cervical disc surgery and lipoma removal surgery several years ago
7) Social history: History of smoking
8) Family history: None
9) Current medical history and medications: Lipoma, right lower limb numbness; no medications are being taken.

2. Method
The following OCNT prescription was provided:

Oral medication:
Cyaplex X granules (101, twice a day, one packet per dose)
Eufaplex Alpha (101, twice a day, one packet per dose)
Debactin granules (101, twice a day, one packet per dose)
Paragon (101, twice a day, one packet per dose)

Topical medication:
Sulfoplex cream (applied to the affected area as needed)
Cyaplex balm (applied to the affected area as needed)

The oral medications were administered only during the first month of OCNT, while the topical medications were applied continuously. The patient does not typically drink alcohol in excess but has a history of smoking, stress, and overwork. Therefore, sufficient sleep was recommended, and the patient was advised to pay attention to stress management.

Results

The patient in this case study had a history of lipomas throughout the body, with intermittent inflammation caused by them. The patient had previously undergone lipoma removal surgery. However, following the surgery, conditions such as smoking, stress, and overwork compounded, and appropriate management was not implemented. As a result, inflammation recurred, and the patient tended to worsen pain.

Before the OCNT treatment, the patient experienced recurrent severe inflammation and pain in the neck and occipital area, with a size of approximately 2-3 cm in diameter. As a result, the skin tissue in the affected area was damaged, and hair loss progressed.

Sulfoplex cream and Cyaplex balm were consistently applied to other lipomas and areas of facial and body inflammation, with regular monitoring of the patient's condition. About one month after starting OCNT, erythema and swelling in the neck and occipital area subsided, showing improvement. After approximately two months, the area of inflammation gradually began to decrease, and hair regeneration started. By three months, the patient was pain-free, and visually, the hair loss area had recovered to a normal level with no visible signs of alopecia. The condition of the patient's hair loss area during the OCNT treatment period is shown in Fig. 1.

Discussion

The patient in this case study is a male in his 40s who visited the pharmacy after hearing from acquaintances that he had hair loss in the occipital area. Upon examining the occipital area, alopecia areata was observed. A detailed patient history revealed the presence of lipomas in various parts of the body, including the neck and occipital area, and a past history of lipoma removal surgery. Therefore, the hair loss was presumed to be caused by inflammation due to the lipomas. The OCNT treatment aimed to alleviate inflammation and provide high-quality nutrients to the affected area to improve the symptoms of hair loss.

The initial approach was to alleviate systemic inflammation through oral medications. For this purpose, Cyaplex X, Eufaplex Alpha, Debactin, and Paragon were utilized. Cyaplex X is rich in anthocyanins, which are known to inhibit the NF-κB signaling

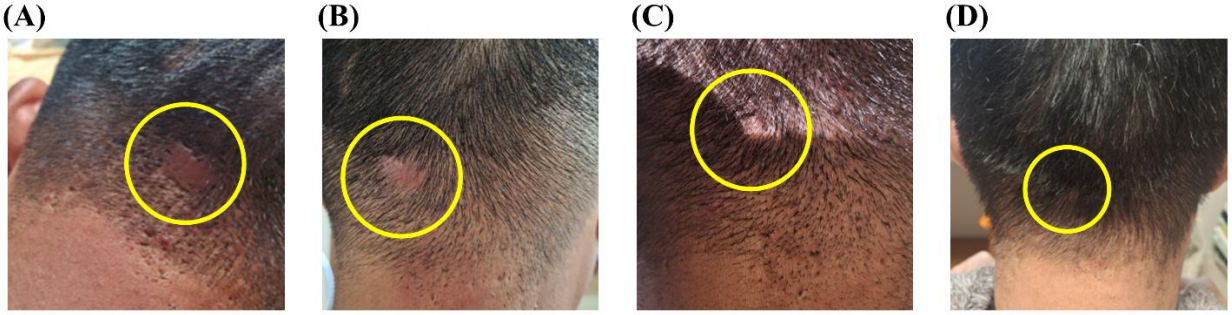

Fig. 1. Changes in the condition of the patient's hair loss area during the OCNT treatment period. (A) September 17, 2024; (B) October 7, 2024; (C) November 11, 2024; (D) December 19, 2024. As the OCNT progressed, a gradual reduction in the extent of alopecia areata in the occipital area can be observed.

pathway and suppress macrophage activity, thereby reducing inflammation. Notably, a study conducted with animal models showed that anthocyanins significantly suppressed inflammatory responses in adipose tissue.[4] In addition, unsaturated fatty acids, such as omega-3, are known to help reduce inflammation, in contrast to saturated fatty acids. Specifically, omega-3 fatty acids have been shown to produce anti-inflammatory lipid mediators, such as resolvins and protectins, promoting inflammation resolution.[5]

In addition to the aforementioned nutrients, natural ingredients were utilized to improve inflammation. Bamboo leaves have been traditionally used in herbal medicine for their antipyretic, detoxifying, and anti-inflammatory properties. A study conducted to validate this showed that when bamboo leaf extract was applied to macrophages and adipocytes, it inhibited the production of the inflammatory mediator nitric oxide (NO) and suppressed the expression of inflammatory genes such as TNF-α and Interleukin-1β. Furthermore, components like fennel, clove, and mugwort have been shown to reduce inflammation by suppressing immune cell-induced inflammation, blocking the NF-κB signaling pathway, and inhibiting inflammatory factors such as HMGB1 and COX-2.[7-9] These ingredients were supplied through Debactin and Paragon.

The oral medications were primarily used to alleviate inflammation, while the topical treatments aimed not only at reducing inflammation but also at supplying high-quality nutrients to the affected areas, with the overall goal of improving function. Methylsulfonylmethane (MSM) is known for its beneficial effects on joint and cartilage function. However, recent studies have shown that when applied topically, MSM helps alleviate dermatitis symptoms and improve skin condition. According to research, MSM inhibits the excessive migration of immune cells, reduces oxidative stress, and alleviates inflammation. It also strengthens the keratin structure of the skin, leading to overall improvement in skin condition. Based on these properties, Sulfoplex cream, rich in MSM, was used to reduce inflammation in the patient's lesion areas.

Along with Sulfoplex cream, Cyaplex balm was used, which contains various plant-based oils such as olive oil, sunflower seed oil, and lavender oil, all of which can help improve skin function. The efficacy of these oils has been confirmed through various studies. Olive oil has been shown to possess anti-inflammatory and antioxidant properties and promote wound healing. Sunflower seed oil strengthens the skin barrier and has anti-inflammatory effects. Lavender oil, on the other hand, is known for its ability to suppress inflammation, alleviate pain, and support wound healing.[10,11] Additionally, Cyaplex balm contains a rich amount of cyanidin. Cyanidin is one of the anthocyanin compounds known for its antioxidant and antimicrobial properties. It is also recognized for its ability to help protect the skin from UV radiation.[12] Therefore, this ingredient likely contributed to alleviating the symptoms of inflammation and improving skin health, which in turn helped improve the patient's hair loss symptoms.

Through the OCNT, it was confirmed that the patient's inflammation and related symptoms were significantly improved. Notably, the combination of oral and topical treatments led to a reduction in the overall inflammatory response, with improvements in the localized hair loss area, ultimately resulting in a significant reduction in discomfort in daily life. However, it should be noted that this case study was conducted on a single patient, and further follow-up is necessary to observe whether the improved condition is maintained. Nonetheless, considering that OCNT contributed to symptom relief and improved quality of life, this case is reported with the patient's consent.

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