CellMed
Orthocellular Medicine and Pharmaceutical Association

Case Report

세포교정영양요법(OCNT)을 이용한 탈모 개선 사례

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A Case Study on Improving Hair Loss Using Ortho-cellular Nutrition Therapy (OCNT)

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ABSTRACT
Objective: Case report on hair loss improvement by ortho-cellular nutrition therapy.
Methods: A Korean woman in her 60s suffers from hair loss.
Results: Hair loss was significantly improved after OCNT.
Conclusion: OCNT may help alleviate hair loss symptoms.

Keywords Ortho-Cellular Nutrition Therapy (OCNT), hair loss, female hair loss

Introduction

Despite rapid social interest and increased scientific research, female hair loss has yet to be conquered. This is because it is a phenomenon that occurs due to the complexity of female hair loss and the interaction of various causes.

The causes of hair loss in women can generally be classified into genetic predisposition, hormonal changes, nutritional deficiencies, stress, disease, and drug side effects.[1-3]

Although genetic predisposition has not yet been identified, the incidence increases if there is a family history, and it has been announced that FSHB and CYP19A1, which are related to sex steroid hormone metabolism, may be potential causes of hair loss.[4]

Hormonal changes cause hair loss. During menopause, a woman's blood estrogen level decreases as the androgen level increases, which can cause androgenetic alopecia.[5]

Nutritional deficiency is also one of the important causes of hair loss in women. Low ferritin levels indicate iron deficiency, which can negatively affect hair growth. Iron deficiency can affect hair's structure, strength, and growth cycle, leading to hair thinning or hair loss. [6]

The diagnostic criteria for hair loss in women mainly rely on several diagnostic methods, including taking the patient's history, physical examination, scalp and hair scalp examination, trichoscopy, pull test, scalp biopsy, and lab test.

Treatment methods vary depending on the cause and type of hair loss. Medication such as minoxidil and finasteride is common. Recently, non-pharmacological treatment methods such as PRP (Platelet-Rich Plasma) therapy and Low-Level Laser Therapy (LLLT) have also attracted attention. A comprehensive approach, including improving nutritional status and stress management along with drug treatment, is important.

In this case report, the patient began to lose hair due to stress and overwork after marriage. After performing OCNT, the hair loss improved. This is a case report with the patient's consent.

Cases

1. Subject
One case of a patient with hair loss was studied.
1) Name: Park ㅇ ㅇ (M/68 years old)
2) Diagnosis: Hair loss
3) Date of onset: Mid-20s
4) Treatment period: January 6, 2024 - February 24, 2024, 55 days in total
5) Main symptoms: Partial hair loss, thin and weak hair
6) Past history: None
7) Social history: None
8) Family history: None
9) Current medical history and medications taken: High blood pressure medication, hyperlipidemia medication

2. Method
Morangmorang booster CAP (twice a day, 2 capsules each time)

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Received Mar 29, 2024; **Accepted** Mar 29, 2024; **Published** Mar 29, 2024
doi: http://dx.doi.org/10.5667/CellMed.spc.074

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

Cyaplex Scalp Revitalizing Shampoo (In wet hair, apply a moderate amount and gently massage as if shampooing, then rinse thoroughly with water)
Cyaplex Scalp Care Tonic (sprayed twice a day)
Vivarol CAP (once a day, 3 capsules each time)
Vivagin-X (twice a day, 1 capsule each time)
Viva-C CAP (once a day, 1 packet each time)
Monacol CAP (once a day, 1 packet each time)

Results

The hair was thin and weak, and except for the bangs, it grew sparsely throughout. The bald area in the upper right corner was large and easily visible. However, after performing OCNT, the hair loss area decreased, and the hair became thicker and shiny.

Fig.1. (A) Photo taken on January 6, 2024, before the start of OCNT. (B) Photo taken on February 24 after the start of OCNT

Discussion

The case subject was a woman in her late 60s who began to lose hair due to stress and overwork after marriage. OCNT was performed to treat long-term hair loss.

The reasons for adding the Morangmorang booster capsule to OCNT are as follows.

1. Dry yeast is a good source of B vitamins, especially B-complex vitamins. Deficiency of the B vitamins riboflavin (B2), biotin (B7), folic acid (B9), and cobalamin (B12) may cause hair loss.[7]

2. Horse placenta extract contains a signal peptide called adiponectin.[8] Adiponectin protein has been found to promote hair growth in vitro effectively.[9]

3. Hair from groups with compromised scalp health showed negative signs compared to hair from the control group. Much evidence suggests that premature hair loss may also be associated with unhealthy scalp conditions.[10] When consuming spirulina, the antioxidant status of the skin is significantly improved.[11] Chlorella reduces cutaneous arterial sympathetic nerve activity (CASNA), increases skin blood flow and improves skin water retention capacity.[12]

4. A 16-week double-blind study showed significant improvements in hair volume and shine in the MSM group.[13] It is also a source of sulfur in the body, so consistently taking it for hair strength and health can reduce hair loss and improve hair diameter and thickness.[14,15]

5. Zinc is one of several transcription factors that regulate hair growth. It is necessary for the activation of enzymes that play an essential role in hair growth, so a deficiency causes hair loss.[16] Cysteine is an amino acid necessary for synthesizing keratin, the main component of hair, and positively affects hair growth.[17]

6. Cyanidin-3-O-glucoside in anthocyanins in AFNCP (anthocyanin-fucoidan complex) components exert an inhibitory effect on androgen receptors in human dermal papilla cells (HDPCs), significantly reducing dihydrotestosterone-induced apoptosis and preventing hair loss.[18] Fucoidan has also been shown to promote hair cell regeneration and induce mRNA expression of factors necessary for hair growth.[19]

The reasons for adding Cyaplex revitalizing shampoo to OCNT are as follows.

1. Aronia extract contains anthocyanin and cyanidin-3-O-glucoside, as mentioned earlier.

2. When taken orally and applied, MSM effectively slows down the progression of hair loss and increases the ratio of anagen to telogen hair.[20]

3. Amino acids such as glycine, lysine, and proline in the 17-type amino acid complex are essential for collagen production. Collagen greatly increases fibroblast elastin synthesis and significantly inhibits the release of MMP-1 and MMP-3 and elastin degradation.[21]

4. Menthol showed significant changes in genes such as keratin, keratin-associated protein, forkhead box, sonic hedgehog, fibroblast growth factor 10, desmoglein 4, deoxyribonuclease-like 2, and cadherin 3, which plays a vital role in promoting hair growth. Additionally, dexpanthenol has been found to moisturize and strengthen the skin barrier.[22]

5. Salicylic acid increased the number of hairs in the treatment group by 17.76% compared to the placebo group in the first investigation of a double-blind, randomized, placebo-controlled clinical trial. In the second survey evaluation, visual evaluation, crown, frontal line, and hair thickness also showed a significantly greater increase in the treatment group compared to the placebo group. No abnormal symptoms were found in the final third evaluation.[23]

The reasons for adding Cyaplex Scalp Care Tonic to OCNT are as follows.

1. The cyanidin in the CSHNC (cyanidin-hyaluronic acid liposome complex) is the same reason the Morangmorang booster capsule and Cyaplex Revitalizing Shampoo were added, and the hyaluronic acid is non-cytotoxic. It promotes hair growth by increasing the secretion of VEGF, which protects against oxidative damage and plays a vital role in mediating angiogenesis during the hair growth cycle.[24]

2. Menthol, MSM, and horse placenta extract are as mentioned above.

3. Centella Asiatica extract promotes hair growth by inhibiting STAT activation in human dermal papilla cells, a central part of hair follicles. Inhibition of JAK/STAT activation promotes hair inducibility of dermal papilla cells.[25]

Vivarol's omega-3 fatty acids significantly improved in supplementation groups in a 6-month randomized controlled trial. Most subjects who took the supplement reported reduced hair loss and improved hair diameter and density.[26]

As mentioned earlier, dry yeast, AFNCP, Aronia extract, spirulina, and folic acid are among the various phytonutrients in Vivazine-X that help with hair loss.

Vitamin C in Viva-C CAP's gooseberry extract, acerola extract, and vitamin tree fruit extract have antioxidant properties. It reduces cellular damage by reducing intracellular free radical attack, increases collagen synthesis, stabilizes collagen fibers, and reduces collagen degradation.[27] Monacolin-K from Monacol CAP was used to improve the patient's hyperlipidemia level[28,29] and was added to improve blood flow to the hair follicles by improving the hyperlipidemia level.

This single case study may not be universally applicable to all patients with hair loss. However, this case is reported with the patient's consent as there was significant improvement after exposure to OCNT.

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