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Case Report

세포교정영양요법(OCNT)을 이용한 만성 두통 개선 사례

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A Case Report on the Improvement of Chronic Headache Using Ortho-Cellular Nutrition Therapy (OCNT)

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ABSTRACT

Objective: Headache is one of the most common neurological symptoms worldwide and can cause discomfort or functional impairment in daily life. When headaches become chronic, dysregulation of the nervous system may develop, and comorbid symptoms and conditions, including musculoskeletal and gastrointestinal discomfort, sleep disorders, and metabolic diseases, are frequently observed. In addition, conventional pharmacological treatments have limitations, including insufficient efficacy and adverse effects such as worsening headache due to medication overuse. Therefore, in headache treatment, there is a growing need not only to treat the headache itself but also to adopt an integrative approach that evaluates and manages comorbid symptoms and conditions, along with complementary therapies such as nutrition- and lifestyle-based interventions.

Case Report: This case report presents a Korean woman in her 50s who presented with persistent headache and various headache-related symptoms, including edema, fatigue, and sleep disturbance. Despite continuous pharmacological treatment, the patient did not experience improvement in symptoms. Therefore, Ortho-Cellular Nutrition Therapy (OCNT), consisting of anthocyanins, omega-3 fatty acids, *Ginkgo biloba* extract, trace minerals and macrominerals, psyllium husk, collagen, methylsulfonylmethane (MSM), and other components, was administered. Subsequently, the patient showed marked improvement in headache and associated symptoms and reported an improvement in quality of life.

Conclusion: Although this case report is limited by the inclusion of a single patient and the same OCNT protocol cannot be applied uniformly to all patients with headache, the findings are meaningful in that an integrative approach using OCNT may have contributed to improvement in the patient's symptoms.

Keywords Ortho-Cellular Nutrition Therapy (OCNT), Chronic headache, Nervous system, Integrative approach

Introduction

Headache is one of the most common neurological symptoms encountered in clinical practice, affecting nearly half of the global population, and may cause discomfort and functional impairment in daily life. Headaches are classified into primary headaches, which are idiopathic headaches that occur without a clear underlying disease or cause, and secondary headaches, which are caused by underlying conditions such as hemorrhage, infection, or tumors. Among these, primary headaches, including tension-type headache and migraine, are highly prevalent and recurrent disorders, accounting for approximately 40% of all headache patients. Furthermore, when headaches occur repeatedly and become chronic, they may lead to various adverse consequences, including impaired daily functioning, sleep disturbance, cumulative fatigue, reduced concentration, emotional instability, and decreased quality of life.[1]

In patients with chronic headache, patients often present not only with headache but also with accompanying symptoms such as muscle tension in the neck and shoulders, cold sensation, gastrointestinal discomfort, fatigue, and paresthesia. These accompanying symptoms are thought to be primarily associated with musculoskeletal tension and autonomic nervous system imbalance, particularly sympathetic–parasympathetic imbalance.

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More specifically, dysregulation of the autonomic nervous system may induce musculoskeletal tension, which can subsequently lead to pain.[2] However, headache has been shown to result from the complex interaction of multiple factors, including lifestyle habits, medication use, stress, diet, and nutritional status, rather than from a single etiology. These multifactorial interactions may be particularly relevant in patients with migraine and some forms of chronic headache.[3]

Recent studies have shown that headache may be frequently associated not only with pain and physical discomfort but also with sleep disorders, mental health problems, and metabolic diseases. Therefore, in headache treatment, the importance of an integrative approach that evaluates and manages comorbidities, rather than treating only the headache itself, has been emphasized.[4] Conventional headache treatment commonly involves pharmacological therapies, including nonsteroidal anti-inflammatory drugs such as aspirin and ibuprofen, as well as agents such as ergotamine and triptans. However, in some patients, insufficient therapeutic efficacy, worsening headache due to medication overuse, adverse effects, and the development of tolerance have emerged as limitations. Accordingly, complementary nonpharmacological therapies, including nutrition- and lifestyle-based interventions, have recently attracted attention because they may help overcome the limitations of conventional pharmacological treatment and show the potential for clinically meaningful improvement.[5]

This case describes a patient who presented primarily with chronic headache, along with accompanying symptoms, including edema of the hands and feet, sleep disturbance, and fatigue. A complementary approach based on Ortho-Cellular Nutrition Therapy (OCNT) was applied to this patient, after which changes in headache and associated symptoms were monitored during follow-up. As the patient showed marked overall improvement and symptomatic relief, this case is reported with the patient's consent.

Case Study

1. Subject

This case involved one patient with chronic headache.

1) Name: Park OO (54 years / F)
2) Diagnosis: Chronic headache
3) Date of onset: Around 2018
4) Treatment period: June 2022 to March 2023
5) Chief complaints: Chronic headache, edema of the hands and feet, sleep disturbance, fatigue, and anxiety
6) Past medical history: Suspected rheumatoid arthritis
7) Social history: Reported excessive occupational stress
8) Family history: Not available
9) Present illness and current medications: The patient was taking prescribed Imigran tablets and edema-related medications, including diuretics.

2. Methods

The OCNT prescribed to the patient is detailed in Table 1.

Table 1. OCNT prescribed to the patient.

Prescription \ Months	1	2	3	4~5	6~7
Cyaplex X granules	101	101	101	101	101
Eufaplex Alpha stick	101	101	101	101	101
Tmplex granules	010	010	010	101	101
Heartberry Black	101	101	–	–	–
Viva circu capsules	101	101	101	101	101
Calmaplex granules	101	101	101	101	101
Bioplex F granules	101	101	101	101	101
Sulfoplex PK tablet	–	–	–	404	202 ~ 404
Collaplex granules	–	–	–	101	101
Sulfoplex cream	Apply to uncomfortable areas 2–3 times daily				

* The numerical notation indicates the number of sachets/capsules/tablets taken in the order of morning–lunch–evening, and 0 indicates no intake.

Results

The patient reported a reduction in headache intensity approximately 1 month after the initiation of OCNT. When assessed using the numerical rating scale (NRS) for pain, the patient reported that the pain had decreased from 10 to approximately 2. Accordingly, the dosage of previously used analgesics was markedly reduced, and the patient discontinued analgesic use entirely after 7 months of OCNT. In addition, accompanying fatigue was reduced, sleep quality improved, and stress-related anxiety and tension were alleviated. Furthermore, edema of the hands and feet that had developed after a suspected diagnosis of rheumatoid arthritis was also observed to improve after the prescribed OCNT. The severity of symptoms perceived by the patient during OCNT is detailed in Table 2.

Table 2. Severity of symptoms experienced by the patient during the course of OCNT. Higher scores indicate greater symptomatic discomfort, with scores ranging from 0 to 5.

Symptom \ Months	1	2	3	4~5	6~7
Headache	5	1	1	1	0
Edema of the hands and feet	4	3	3	2	1
Fatigue	4	2	1	1	1
Sleep disturbance	3	2	2	2	1
Anxiety and tension	4	2	1	0	0

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

Discussion

The patient was a Korean woman in her 50s who reported experiencing headache-related discomfort since 2018. Her headache gradually worsened, leading her to undergo brain magnetic resonance imaging (MRI). The examination revealed

abnormalities related to intracranial blood flow, and she had been prescribed analgesics and related medications at multiple hospitals for several months. However, the patient reported no clear improvement in her symptoms. In addition, work-related stressors compounded her condition, and she reported severe symptom aggravation, along with non-headache symptoms, including numbness in the hands and feet, fatigue, and anxiety. Based on this assessment, impaired blood circulation was considered to have induced the headache and subsequently affected the nervous system and other systems, resulting in various accompanying symptoms. Stress also appeared to have contributed to symptom aggravation, and OCNT was applied to improve the headache and accompanying symptoms. In particular, the OCNT regimen was designed to focus on improving the internal physiological environment by enhancing antioxidant and anti-inflammatory actions, alleviating headache symptoms through stabilization of the circulatory and nervous systems, and improving various symptoms other than headache.

First, the aim was to support improvement in the patient's physical function by enhancing antioxidant and anti-inflammatory actions and to facilitate the actions of other OCNT components. For this purpose, the anthocyanins in Cyaplex and the omega-3 fatty acids in Eufaplex were used. Anthocyanins are water-soluble natural pigments belonging to the flavonoid class and are abundant in blue- and purple-colored foods such as blueberries, red cabbage, and aronia. Various studies have reported that these compounds exhibit potent free radical-scavenging activity and reduce oxidative stress, thereby supporting antioxidant activity, and have also been shown to exert anti-inflammatory and cardioprotective effects.[6] In addition, omega-3 fatty acids may contribute to reducing the expression of pro-inflammatory cytokines such as TNF-α and IL-1β in the body.[7]

Next, stabilizing the patient's circulatory and nervous systems was considered essential for improving headache and edema symptoms, and an appropriate OCNT regimen was prescribed. Accordingly, Viva circu, Tmplex, Calmaplex, and Bioplex were used. *Ginkgo biloba* extract, the main component of Viva circu, is known to help improve blood circulation. In the body, this component acts by increasing the production and release of nitric oxide, which plays an important role in vasodilation, thereby promoting vasodilation and increasing blood flow. Evidence supporting this effect has gradually accumulated through clinical trials in patients with coronary artery disease.[8]

Tmplex contains trace minerals, including selenium, manganese, chromium, molybdenum, iron, and zinc, while Calmaplex contains macrominerals, primarily calcium and magnesium. Trace minerals are involved in various physiological functions, such as oxygen transport, energy production, regulation of neural excitation, and neurotransmitter activity. Therefore, for stabilization of the nervous system, trace minerals need to be maintained at appropriate levels in the body.[9] In addition, calcium contributes to cellular signaling and neurotransmitter release, while magnesium may help suppress neural hyperexcitability and reduce inflammatory mediators. Based on these actions, they may help normalize nervous system function and play a beneficial role in relieving headache. In one clinical trial, higher intake of calcium and magnesium was associated with a lower likelihood of reporting headache.[10]

The patient also reported gastrointestinal discomfort along with headache. A large population-based study investigating the association between gastrointestinal symptoms and headache prevalence found that the likelihood of headache was higher in symptomatic groups.[11] Accordingly, the patient's gastrointestinal discomfort was considered to be possibly associated with headache, and Bioplex F was prescribed with the aim of improving these symptoms. In particular, psyllium husk, one of the main components of Bioplex F, is known to absorb water in the intestine, increase stool water content, improve defecation frequency, and induce positive changes in the gut microbiota, thereby helping improve the gut environment.[12]

Finally, because the patient had previously been diagnosed with suspected rheumatoid arthritis, collagen and methylsulfonylmethane (MSM) were used to support joint-related symptoms associated with this condition. These two components are known to play important roles in joint health. Collagen contributes to promoting the formation of the cartilage matrix, while MSM exerts antioxidant and anti-inflammatory actions in the joints and may serve as a source of sulfur required for maintaining connective tissue.[13,14] These two components were supplied through Collaplex and Sulfoplex, respectively, and it was considered that they may have contributed to reducing the discomfort caused by the patient's suspected arthritis.

Through the above OCNT, the patient showed progressive improvement in headache intensity, and ultimately, discontinuation of analgesic use was achieved. In addition, it is noteworthy that accompanying discomfort symptoms associated with the headache, such as fatigue, sleep disturbance, and anxiety, also showed significant improvement. However, because this case involved a single patient, there are limitations in applying the same OCNT uniformly to all patients with headache, and further studies involving additional cases appear to be necessary. Nevertheless, it is considered meaningful that OCNT may have contributed to improving the patient's discomfort symptoms and meaningfully enhancing quality of life. Therefore, this case is reported with the patient's consent.

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