

세포교정영양요법(OCNT)을 이용한 두통 및 두중감 개선 사례

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A Case Report on the Improvement of Headache and Head Heaviness Through Ortho-Cellular Nutrition Therapy (OCNT)

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ABSTRACT

Objective: Headaches and a sensation of heaviness in the head are common symptoms encountered in clinical practice and may be associated with various factors, including chronic stress, muscle tension, nervous system imbalance, and underlying vascular disease. Patients with a history of cerebrovascular disease often report persistent headaches and head heaviness that cannot be adequately explained by routine diagnostic or screening tests, leading to fear and anxiety about symptom recurrence. Accordingly, adjunctive approaches incorporating nutritional support to improve patients' overall condition, stabilize physiological function, and alleviate symptoms have recently attracted increasing attention.

Case Report: This case describes a Korean woman in her 60s who had a history of cerebrovascular disease when treatment was initiated. The patient presented with persistent headaches and a sensation of heaviness in the head, as well as sleep disturbances, fatigue, and anxiety. An Ortho-Cellular Nutrition Therapy (OCNT) regimen incorporating anthocyanins, alginic acid, omega-3 fatty acids, trace minerals, beta-carotene, and *Panax notoginseng* extract was administered. Despite the occurrence of a minor cerebral infarction during therapy, the patient reported improvement in her headaches, head heaviness, and other associated symptoms.

Conclusion: Because this case involved a single patient, the findings cannot be readily generalized to other patients with similar symptoms. Nevertheless, this case is considered meaningful because it suggests that appropriate adjunctive nutritional therapy may help improve symptoms and support overall health in patients with cerebrovascular disease.

Keywords Ortho-Cellular Nutrition Therapy (OCNT), Headache, Head heaviness, Cerebrovascular disease, Nutritional supplementation

Introduction

Headache and a sensation of heaviness in the head are commonly encountered symptoms in clinical practice and may present in various forms, including tension-type headache, migraine, mixed-type headache, and cluster headache. Their causes are diverse and include chronic stress, excessive muscle tension, sleep disturbances, autonomic nervous system imbalance, hypothalamic-pituitary-adrenal (HPA) axis

dysfunction, vascular dysregulation, and sequelae of cerebrovascular diseases such as stroke, cerebral infarction, and subarachnoid hemorrhage.¹ Particularly in patients with a history of cerebrovascular disease, head discomfort may extend beyond physical pain and, when accompanied by anxiety about recurrence, health anxiety, and a decline in overall health, lead to a reduced quality of life.²

Patients with a history of cerebrovascular disease often continue to report persistent headaches, a sensation of heaviness in the head, fatigue, tension, and poor sleep quality even after recovery, despite having minimal overt neurological deficits. However, these symptoms may not be fully explained by standardized stroke assessments or screening tests.³ In particular, patients who have experienced headaches or discomfort related to cerebrovascular disease may become increasingly sensitive to such symptoms and experience excessive fear or anxiety about recurrence, which may in turn worsen their symptoms.⁴ Accordingly, the importance of an integrated approach that

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combines standard treatment of the underlying condition with efforts to promote functional stability and relieve symptoms throughout the recovery period is increasingly being emphasized in this patient population.

As part of this integrated approach, increasing attention has been given to nutrition-based interventions designed to support patients' overall condition and functional stability and alleviate subjective symptoms. These interventions aim to improve patients' condition by supporting cellular metabolism, reducing oxidative stress, regulating inflammatory responses, and stabilizing microcirculatory and nervous system function. Rather than replacing standard treatment for the underlying disease, they may be used as adjunctive interventions along with such treatment. In patients with a history of cerebrovascular disease who present with multiple concurrent symptoms, these interventions may help create a favorable physiological environment for overall recovery.⁵

This case describes the application of Ortho-Cellular Nutrition Therapy (OCNT), a nutritionally based intervention, in a patient with a history of cerebrovascular disease who presented with marked anxiety, persistent headaches, and a sensation of heaviness in the head. The patient had experienced cerebrovascular events and received treatment both before and during OCNT. Nevertheless, continued OCNT administration was associated with improvement in the patient's primary symptoms and overall health status. Because these findings may suggest the potential value of this nutritional approach, the case is reported with the patient's consent.

Case Study

1. Subject

This case involved a single patient with chronic headache.

- 1) Name: Choi OO (69 years old at the time of OCNT / F)
- 2) Diagnosis: Chronic headache
- 3) Onset date: Estimated 2022 to 2023
- 4) Treatment period: May 2023 to March 2024
- 5) Chief complaint: Headache, sensation of head heaviness (a feeling of mental cloudiness and dullness)
- 6) Past history: Subarachnoid hemorrhage, thyroidectomy due to thyroid cancer, cataract surgery
- 7) Social history: No information available
- 8) Family history: No information available
- 9) Present illness and current medications: Currently taking antihypertensive medication and cerebral circulation-improving medication

2. Methods

The OCNT regimen prescribed to the patient is presented in detail in Table 1.

Results

Following the initiation of OCNT, the patient experienced gradual improvement in head heaviness, headaches, and associated symptoms, with the improvement becoming more pronounced at 7–8 months than during the first month. Although the patient developed a minor cerebral infarction during OCNT and required approximately one week of hospitalization, the symptomatic improvement was maintained despite this event. The patient also remained in stable overall health after

completing OCNT. The severity of the discomfort associated with the patient's symptoms during OCNT is presented in detail in Table 2.

Discussion

The patient in this case was a Korean woman in her 60s when OCNT was initiated. She presented with persistent headaches and a sensation of heaviness in the head, accompanied by anxiety and tension concerning symptom recurrence. Her medical history included a previous subarachnoid hemorrhage, and she was taking antihypertensive agents and medications intended to improve cerebral circulation. She had also undergone a thyroidectomy for thyroid cancer and cataract surgery. Accordingly, OCNT was initiated with the aim of improving her overall physiological condition and thereby alleviating her symptoms.

This OCNT regimen aimed to enhance antioxidant defenses and cytoprotective function, stabilize vascular function, support hematopoiesis and energy metabolism, and promote emotional stability by regulating autonomic nervous system balance. The prescription details and key nutritional components used in this OCNT regimen are presented in Table 3.

Oxidative stress caused by reactive oxygen species can impair mitochondrial function and induce lipid peroxidation in cell membranes, creating physiological conditions that may

Table 1. OCNT prescribed to the patient.

Month Prescription	1	2	3~4	5~6	7~8
Cyaplex X fine granules	101	101	101	101	101
Eufaplex alpha stick	101	101	101	101	101
Tmplex capsule	101	101	101	101	101
Hemoplex capsule	202	202	202	202	202
Caroplex fine granules	101	101	101	101	101
Notoplex fine granules	–	101	101	101	101

* Numeric notation indicates the number of packets, capsules, or tablets taken in the order of morning, afternoon, and evening. 0 indicates no intake.

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.

Month Symptom	1	2	3~4	5~6	7~8
Sensation of head heaviness	4	2	1	0	0
Headache	3	2	1	0	0
Eye fatigue	4	3	2	1	1
Anxiety	4	3	2	1	1
Sleep disturbance	3	2	1	1	1
Fatigue	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

Table 3. Key nutritional components contained in the OCNT prescription.

Prescription	Key nutritional component
Cyaplex X fine granules	Anthocyanin, alginic acid
Eufaplex alpha stick	Omega-3, omega-6, omega-9
Tmplex capsule	Trace minerals including chromium, zinc, selenium, iron, manganese, and copper
Hemoplex capsule	Iron, vitamin B12, folic acid
Caroplex fine granules	Beta-carotene
Notoplex fine granules	<i>Panax notoginseng</i> root extract powder (ginsenoside)

increase susceptibility to headaches and pain.⁶ Given that the patient's history of subarachnoid hemorrhage may make her more vulnerable to oxidative stress, enhancing antioxidant defenses was considered important.

Anthocyanins may help inhibit pathways involved in the generation of reactive oxygen species and enhance the activity of antioxidant enzymes such as SOD and GPx. These effects may help reduce lipid peroxidation in cell membranes and lower oxidative stress markers.⁷ Alginic acid helps reduce the rapid degradation of anthocyanins in the stomach and improve their bioavailability when administered concurrently.⁸ These two components were therefore prescribed to support the patient's antioxidant defenses.

Headaches may occur when neurological dysfunction causes hyperexcitability of the central nervous system, leading to overstimulation throughout the nervous system. This process may heighten vascular wall reactivity and inflammatory responses, thereby contributing to headache exacerbation and chronification.⁹ Accordingly, stabilizing nervous and vascular system function may help alleviate headaches.

Omega-3 fatty acids are known to help stabilize neural activity and suppress inflammatory responses. Specifically, they enhance cell membrane fluidity and permeability, thereby influencing neurotransmitter and receptor function and potentially supporting neuronal membrane function and the regulation of neurotransmission. They may also help regulate inflammation by inhibiting inflammatory signaling pathways and serving as precursors to specialized pro-resolving mediators such as resolvins, protectins, and maresins.¹⁰ Zinc is also known to modulate nervous system function, including GABA receptor activity, glutamatergic signaling, and synaptic plasticity. In particular, it may help reduce neuronal excitability in the brain, thereby supporting overall neural regulation.¹¹

Carotenoids are known to help enhance vascular endothelial function through their antioxidant and anti-inflammatory effects. They may maintain the bioavailability of nitric oxide (NO), which protects the vascular endothelium and promotes adequate blood flow.¹² *Panax notoginseng* contains saponins, including Rb1, Rd, Re, and Rg1, which may positively modulate pathways involved in NO production and promote blood flow by inducing vasodilation.¹³ Among the trace minerals essential for metabolism, copper and manganese are significantly inversely correlated with blood pressure measures associated with cardiovascular burden, suggesting that an adequate supply of these minerals may help maintain cardiovascular health.¹⁴ These components were therefore prescribed to help stabilize the patient's neurological and vascular function and serve as adjunctive support for headache relief.

Deficiencies in nutrients involved in hematopoiesis and cellular metabolism may be associated with the development or exacerbation of headaches. Accordingly, various nutrients were included in the regimen to address this possibility. Iron, vitamin B12, and folic acid support hematopoiesis. Iron is required for the synthesis of hemoglobin, which enables red blood cells to transport oxygen, whereas vitamin B12 and folic acid support red blood cell differentiation and proliferation.¹⁵ Selenium and manganese were included to support cellular metabolism. Manganese is required for the activity of MnSOD, which helps remove reactive oxygen species, whereas selenium is essential for the activity of selenium-dependent antioxidant enzymes. Through their respective antioxidant functions, both nutrients may help protect cellular function.¹⁶

Following this nutritional regimen, the patient showed improvement in head discomfort and overall health. However, because this case involved a single patient, the findings cannot be generalized to all patients with similar symptoms. Nevertheless, this case suggests that OCNT may serve as an adjunctive intervention to help improve symptoms and support recovery of overall health in patients with cerebrovascular disease. The patient's eventual improvement and sustained long-term stability, despite experiencing a minor cerebral infarction during OCNT, are considered noteworthy. This case is therefore reported with the patient's consent.

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