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Case Report

세포교정영양요법(OCNT)을 이용한 백신 이상반응 개선 사례 보고

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Case Report on the Amelioration of Vaccine Adverse Effects Using Ortho-Cellular Nutrition Therapy (OCNT)

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ABSTRACT

Objective: Coronavirus disease 2019 (COVID-19), first identified in December 2019, triggered an unprecedented pandemic, and vaccines were developed and administered rapidly in response. These measures substantially reduced overall infection rates, progression to severe disease, and mortality. Reports of adverse events also continued. In some individuals, post-vaccination reactions persisted, sometimes termed chronic vaccine-induced syndrome, and no established management is available. Therefore, practical guidelines and therapeutic options are needed.

Case Report: A Korean woman in her 70s developed dyspnea, loss of taste, and poor appetite after COVID-19 vaccination. The symptoms persisted and led to several emergency department visits. Subsequent evaluation identified valvular heart disease and suspected tuberculosis. Conventional pharmacotherapy was attempted but provided no meaningful relief. Ortho-Cellular Nutrition Therapy (OCNT) was initiated with β-glucan, glycine, anthocyanins, omega-3 fatty acids, *Panax notoginseng*, fermented soybean extract, and postbiotics. The patient reported steady improvement in breathing, taste, and appetite. She returned to normal daily activities and noted better stamina and quality of life.

Conclusion: Because this case involved a single patient, its applicability to all patients with vaccine-related adverse reactions is limited. Nevertheless, the symptom relief achieved with appropriate OCNT in symptoms that had not improved over a prolonged period is considered meaningful.

Keywords Ortho-Cellular Nutrition Therapy (OCNT), adverse events following immunization (AEFI), chronic vaccine-induced syndrome, immune response

Introduction

In December 2019, cases of pneumonia of unknown etiology were reported in Wuhan, China, and on January 8, 2020, a novel coronavirus was identified as the cause. The World Health Organization (WHO) subsequently named the virus severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and on March 11, 2020, declared a pandemic due to coronavirus disease 2019 (COVID-19). The virus spread to more than 160 countries by mid-March after its emergence and had caused approximately 93 million infections by January 2021. Accordingly, vaccines were developed and deployed rapidly.[1]

On January 11, 2020, the genome sequence of SARS-CoV-2 was released, which enabled vaccine development worldwide. Multiple candidates subsequently advanced to phase 3 clinical trials, and ultimately eight vaccines—including mRNA-based, inactivated, non-replicating viral vector–based, and peptide vaccines—received WHO Emergency Use Listing.[1] In Korea, six vaccines were authorized and rolled out beginning in 2021, and first-dose coverage reached about 85% by the end of that year.[2]

With the rollout of vaccination, overall infection prevention rates and the rates of severe disease, hospitalization, and death have markedly declined.[3] At the same time, many adverse effects after vaccination have been observed, and interest in these events has increased. The adverse effects of COVID-19 vaccines reported to date can be categorized by severity as shown in Table 1.

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Table 1. COVID-19 Vaccine Adverse Effects by Severity[4]

Mild adverse effects	local pain at the injection site, myalgia, fatigue, fever, chills, etc. → symptoms that are mild or transient
Moderate adverse effects	persistent generalized pain, fatigue, irritability, etc. → ongoing symptoms that may affect daily activities
Severe adverse effects	myocarditis, thrombosis, anaphylaxis, etc.

In some patients, the adverse effects persist for several weeks to months after vaccination. Among all vaccine recipients, an estimated 3%–4.6% reported adverse effects lasting longer than one week, and such persistent, nonspecific symptoms are referred to as chronic vaccine-induced syndrome or long post-vaccine syndrome (Long post-vaccine syndrome). Reported adverse effects include persistent fatigue, cognitive impairment (brain fog), peripheral neuropathy (tingling and sensory abnormalities), insomnia, impaired concentration, and affective instability. No clear diagnostic criteria or treatment guidelines are currently available, and many cases are managed with observation alone. Therefore, strategies capable of addressing this condition should be explored and developed.[5]

The patient in this case experienced adverse effects that persisted for a prolonged period after the COVID-19 vaccination, indicating a chronic course. The patient reported substantial discomfort, and Ortho-Cellular Nutrition Therapy (OCNT) was applied. As a result, improvement in the overall symptoms and quality of life was confirmed. With the patient's consent, this case is reported.

Case Report

1. Patient

A single patient with vaccine adverse effects was included.

1) Name: Jeong OO (76 years / F)
2) Diagnosis: adverse effects following immunization (AEFI) after COVID-19 vaccination
3) Onset: May 2021
4) Treatment period: February 2022 – November 2022
5) Chief complaints: dyspnea, ageusia, generalized fatigue, valvular heart abnormality, suspected tuberculosis
6) Past medical history: hypertension, diabetes mellitus, hyperlipidemia, hypothyroidism, generalized debility due to a traffic accident, ocular prosthesis insertion due to trauma
7) Social history: none
8) Family history: none
9) Present illness and current medications: medications prescribed for adverse effects after COVID-19 vaccination
- symptomatic agents for dyspnea
- analgesics and cognitive enhancers
- cardiac medications for heart failure (cardiotonic agents, antiarrhythmic drugs)
- anti-tuberculosis agents

2. Methods

The OCNT regimen prescribed to the patient is detailed in Table 2.

Table 2. OCNT administered to the patient.

Type \ Months	1 ~ 2	3 ~ 7	8 ~ 9
Cyaplex F granules	101	101	101
Betaplex granules	101	101	101
Licoplex F granules	101	101	-
Notoplex granules	101	101	101
Gastron granules	101	101	101
Eufaplex Alpha stick	-	101	101
Bioplex F granules	-	-	101
Cyaplex Nova	Spray into the nose and mouth 2 to 3 times daily.		

* 101: twice daily, take 1 sachet/tablet/capsule per dose in the morning and in the evening .

Results

The patient noted relief of dyspnea about two weeks after initiating OCNT and reported a gradual recovery of taste. OCNT was continued, and discomfort from these symptoms improved markedly compared with baseline, with an increase in appetite. Anxiety and generalized fatigue also improved, and by the end of OCNT, the patient was able to perform normal daily activities with better stamina and overall quality of life. The perceived severity of discomfort during OCNT is shown in Table 3.

Table 3. Severity of symptoms reported by the patient during OCNT. Higher scores from 0 to 5 indicate greater discomfort experienced by the patient.

Type \ Months	1	2	3~4	5~7	8~9
Dyspnea	5	3	2	1	0
Ageusia	5	4	2	1	1
Loss of appetite	5	4	3	2	1
Generalized fatigue	5	3	1	1	0
Anxiety	5	3	1	1	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

Conclusions

The patient was a Korean woman in her seventies who received the first COVID-19 vaccine dose in April 2021 and the second dose in May 2021. She reported the onset of dyspnea and loss of taste two weeks after the second dose. She then received a third dose in November 2021 and described worsening loss of taste with new generalized fatigue. The dyspnea intensified, and she required several emergency department treatments. Despite ongoing care, the symptoms persisted, and a valvular heart abnormality and suspected tuberculosis were also diagnosed. In early February 2022, she visited a pharmacy, and after counseling, OCNT was initiated.

Vaccines enhance immune competence through immune-mediated responses. Although COVID-19 vaccines are generally safe, immunologically mediated effects can occur as the immune response develops. If this response is dysregulated, complications can rarely arise, and symptoms may persist for an extended period.[6] The patient had a history of hypertension, diabetes mellitus, and hyperlipidemia. In particular, diabetes can impair innate and adaptive immunity and increase susceptibility to infection.[7] Therefore, the patient's prolonged adverse effects were regarded as reflecting reduced and imbalanced immunity, and OCNT was prescribed to enhance immune function and mitigate symptoms.

Restoring the immune balance and strengthening the immunity were considered important to improve the patient's condition. Therefore, Betaplex and Licoplex were prescribed. Betaplex contains abundant β-glucan, a polysaccharide found in plants such as oats, barley, and seaweeds and in the cell walls of yeast and fungi. β-Glucan activates immune cells, including macrophages, neutrophils, and NK cells, and increases the secretion of cytokines such as IL-1, IL-6, and TNF-α to promote antimicrobial activity. By engaging specific cell-surface receptors, it can trigger immune-cell responses and thereby function as a key mediator of immunomodulation.[8]

The main active component of the Licoplex is glycine extracted from licorice. Glycine is an amino acid involved in the synthesis of diverse biomolecules in the body. It helps reduce oxidative stress and supports nutritional replenishment, and it also plays an important role in regulating the immune and inflammatory responses. In particular, it modulates NF-κB activity and the expression of cytokines such as IL-1β, IL-6, and TNF-α, which can alleviate pro-inflammatory conditions. It also adjusts the activity of immune cells—including macrophages, monocytes, and mast cells—through various regulatory mechanisms. Therefore, the intervention focused on activating the immune responses and maintaining them at an appropriate level.[9]

Next, OCNT was prescribed to help strengthen the respiratory and cardiovascular systems whose function had been weakened by the vaccine syndrome. For this purpose, anthocyanins and omega-3 fatty acids were used. Anthocyanins are polyphenols abundant in dark-colored plants such as berries, black rice, and red onions. Evidence from multiple cohort studies and randomized controlled trials has shown improvements in lipid levels, including LDL cholesterol and triglycerides, and reduced expression of inflammatory markers such as TNF-α, which can support cardiovascular health.[10] Moreover, animal experiments have shown that the regulation of oxidative stress and signal transduction helps mitigate lung injury.[11] In addition, the results of multiple studies indicate that omega-3 fatty acids reduce the risks of myocardial infarction and coronary artery disease and help lower mortality due to cardiovascular disease.[12] These components were to be supplied by prescribing Cyaplex and Eufaplex, respectively.

The patient had reported generalized fatigue as an adverse effect of vaccination, therefore OCNT was also prescribed to help improve this symptom. For this purpose, the *Panax notoginseng* component contained in Notoplex was used. The key constituents include ginsenosides, which support anti-fatigue, antioxidant, and neuroprotective actions. These effects have been shown in multiple clinical trials with improvements on various self-reported fatigue scales. In addition, the groups receiving ginsenosides showed significant benefits in post-exercise heart rate recovery compared with the control groups.[13]

Lastly, because the patient had ageusia with consequent loss of appetite, the plan targeted appetite recovery. The approach focused on improving the overall gastrointestinal function to facilitate the return of appetite. Accordingly, Gastron and Bioplex were prescribed. Gastron contains fermented soybean powder with bioactive compounds including isoflavones, peptides, and phytosterols. After ingestion, these constituents are broken down during digestion, supporting the digestive enzyme activity, and promoting beneficial bacteria and short-chain fatty acid (SCFA) production, which can improve gastrointestinal health.[14] Bioplex provides postbiotics, defined as inactivated microorganisms or their components that confer health benefits to the host. Intake can modulate the gut microbiota and strengthen the epithelial barrier, improve the intestinal environment, and help regulate local and systemic immune and metabolic responses, thereby supporting gastrointestinal and overall health.[15]

Through the above OCNT, the patient's long-standing post-vaccination adverse effects were alleviated, and psychological stability was gradually regained. In particular, by the end of OCNT, the patient was able to conduct daily activities at the pre-adverse-effect level and reported improvements in stamina and overall quality of life. However, because this case involved a single patient, there are limits to applying the same OCNT to other patients with adverse effects after vaccination. However, the improvement in the overall symptoms and quality of life achieved with OCNT tailored to the patient's condition is considered meaningful. Therefore, this case is reported with the patient's consent.

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