

세포교정영양요법(OCNT)을 통한 다한 및 설사 개선 사례 보고

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A Case Report on the Improvement of Hyperhidrosis and Diarrhea through Ortho-Cellular Nutrition Therapy (OCNT)

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ABSTRACT

Objective: Sweating is a function of the skin that regulates body temperature, but excessive sweating beyond the necessary level is defined as hyperhidrosis. The causes of hyperhidrosis vary, and in some cases, it occurs without a specific underlying cause. Diarrhea is defined as the abnormal excretion of excessively loose stools due to impaired colonic function. Depending on its duration and the patient's age, diarrhea can be classified as acute, persistent, or chronic. These symptoms can be managed by diagnosing the exact cause and applying various medical treatments. However, in recent years, methods such as traditional Korean medicine and lifestyle modifications, including dietary adjustments, have also gained attention for symptom improvement.

Case Reports: This case study involves a 9-year-old Korean male with hyperhidrosis severe enough that he regularly needed a fan to cool down, along with frequent diarrhea and abdominal pain that disrupted his daily life. Ortho-Cellular Nutrition Therapy (OCNT) was applied using nutrients such as zinc, vitamin D, glycine, postbiotics, bamboo leaves, reed roots, and *Scutellaria baicalensis*. As a result, the frequency and severity of sweating were significantly reduced, and his diarrhea symptoms improved, enabling him to resume normal daily activities.

Conclusion: This case study demonstrates that the appropriate application of OCNT can improve a patient's hyperhidrosis and diarrhea symptoms. However, the limitation of this study is its focus on a single patient, and further research is needed to apply OCNT to individuals across different age groups.

Keywords Ortho-Cellular Nutrition Therapy (OCNT), Hyperhidrosis, Diarrhea, Internal heat

Introduction

Sweating is a core function of the skin that regulates body temperature. Sweat glands, which are distributed throughout the skin, serve as excretory organs to carry out this function. The primary purpose of sweating is to dissipate heat, a process known as thermoregulatory sweating, and it is influenced by factors such as body temperature, skin temperature, physical activity, humidity, and gender. Additionally, emotional sweating occurs when stimulated emotionally, and gustatory sweating occurs when consuming stimulating foods, both of which are types of sweating.¹

Hyperhidrosis refers to excessive sweating beyond the necessary level for body temperature regulation, which can occur either systemically or in localized areas such as the face, hands, or feet. The causes of this condition include dysfunction of the sympathetic nervous system, underlying diseases, and side effects of medications, although it can also occur without any specific underlying cause. Various treatments can be applied depending on the cause and severity of the symptoms. These treatments include local therapies using aluminum salts or botulinum toxin, surgical treatments to remove the sympathetic nerves or sweat glands, and systemic treatments using anticholinergics or antidepressants. However, these methods may be ineffective or lead to side effects, requiring a cautious approach. Recently, there has been growing attention on Korean traditional medicine approaches that treat sweating regulation mechanisms by addressing excessive internal heat.^{2,3}

The colon is a component of the digestive system responsible for processing food that was not digested in the preceding organ, the small intestine. This organ primarily absorbs water, electrolytes, and vitamins while providing an environment for gut microbiota to thrive. These bacteria produce B vitamins and vitamin K through fermentation, which

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are then absorbed into the bloodstream. After completing these processes, the remaining waste is solidified into stool and moved to the rectum for elimination.⁴

Diarrhea indicates that an abnormal situation has occurred during the digestion process in the colon and digestive system. It occurs when feces do not solidify properly, resulting in the excretion of loose stools, and is defined as passing more than 200g of stool per day or having a stool frequency of more than three times a day. This symptom can be classified into acute, persistent, or chronic diarrhea based on the duration, and the causes vary depending on the duration of occurrence and the patient's age. Infections usually cause acute and persistent diarrhea, while chronic diarrhea can involve various genetic, immunological, and dietary factors. Furthermore, chronic diarrhea can be further categorized based on its specific causes, including osmotic, inflammatory, fatty, and protein-losing types. Therefore, when diarrhea occurs and persists, it is essential to identify the underlying cause and alleviate symptoms through appropriate dietary adjustments.⁵

This case study presents the case of a patient who experienced hyperhidrosis along with persistent diarrhea and abdominal pain, causing significant discomfort in daily life. Ortho-Cellular Nutrition Therapy (OCNT) was applied, significantly improving the overall symptoms. Therefore, this case study is reported with the patient's consent.

Case Study

1. Subject

The case involves a patient with hyperhidrosis and diarrhea.

- 1) Name: Kim OO (9 years old / M)
- 2) Diagnosis: Hyperhidrosis
- 3) Date of onset: March 3, 2025
- 4) Treatment period: March 7, 2025 – Present
- 5) Chief complaints: Hyperhidrosis, diarrhea, abdominal pain
- 6) Medical history: Common cold, diarrhea, allergic rhinitis
- 7) Social history: None
- 8) Family History: none
- 9) Present illness and medications: Polybutin dry syrup 9cc (3 times per day), Biodin powder 0.667 g (3 times per day), Dytrop suspension 15cc (as needed), other prescribed medications for diarrhea and the common cold

2. Method

The following OCNT was prescribed:

First OCNT (March 7, 2025 – March 8, 2025)

- Viva Kids Gold
- Hwapyeongwon Liquid

The prescription was divided into three doses, with 1/3 sachet taken per dose.

Second OCNT (March 9, 2025 – March 11, 2025)

- Viva Kids Gold (101, twice a day, one sachet per dose)
- Hwapyeongwon Liquid (101, twice a day, one sachet per dose)

Third OCNT (March 11, 2025 – Present)

- Viva Kids Gold (100, once a day, one sachet per dose)
- Hwapyeongwon Liquid (100, once a day, one sachet per dose)

In addition to the above prescriptions, the patient was advised to avoid spicy foods, wheat, dairy products, fried foods, ginger, and ginseng during the OCNT period.

Results

The patient in this case experienced excessive sweating and frequent diarrhea with abdominal pain, causing significant discomfort in daily life and difficulty attending school. Despite receiving intravenous fluids and medication prescriptions from the hospital, the symptoms did not improve. Therefore, OCNT was implemented to promote symptom improvement.

Immediately after the first OCNT, the frequency of diarrhea gradually decreased, and the dosage and frequency were adjusted for continued treatment. Following the second OCNT, the patient's guardian reported that the diarrhea had almost stopped, and the frequency of using a fan to cool down sweating had significantly reduced, which had previously been frequent. The patient showed a positive response to OCNT, and the dosage was slightly adjusted for ongoing treatment.

Discussion

The patient in this case study is a 9-year-old Korean male who exhibited hyperhidrosis with excessive sweating and experienced severe diarrhea and abdominal pain, causing significant discomfort in daily life. The severity of the symptoms was such that it interfered with his ability to attend school, and he had received intravenous fluids and oral medication prescriptions at the hospital. However, these treatments only provided temporary relief, and the symptoms were reported to have recurred shortly thereafter.

In an interview with the patient and his guardian, the patient reported excessive sweating, even using a fan during winter, and experiencing heat rashes on his body, including the groin, during the summer. The patient also frequently experiences diarrhea, tends to catch colds often, and has a history of allergic rhinitis. Upon examining the patient's physical condition and lifestyle, his weight was recorded at 50 kg, above the standard for his age according to the Korean pediatric growth chart. The patient tends to follow a selective diet, frequently consuming meat, wheat-based foods, dairy products, fried foods, and ginger tea. Consuming wheat-based foods or overeating, even slightly, triggers symptoms of indigestion, diarrhea, and abdominal pain.

Nutritional imbalance is closely related to the body's immune function. It can negatively affect both innate and adaptive immunity, decreasing the body's energy levels and reducing immune cell activity. Additionally, it can cause an imbalance in gut microbiota, resulting in increased inflammation in the intestinal mucosa and vulnerability to infections.⁶ Some foods, including ginger, are known to stimulate energy metabolism and generate heat in the body.⁷ The patient in this case study regularly consumed more ginger tea than typical amounts, and due to selective eating habits, there was an imbalance in nutrition. These factors likely disrupted the body's heat balance, leading to an unstable immune system. In response, the body generated internal heat, which manifested as excessive sweating and, consequently, affected the intestinal mucosa and microbiota, contributing to

excessive diarrhea. The accelerated fluid loss appeared to exacerbate the symptoms. Therefore, the goal of OCNT was to lower the excessive heat, improve the immune system, and restore the gut environment.

Hwapyeongwon was used to address the patient's internal heat. Hwapyeongwon contains extracts from bamboo leaves, reed roots (*Phragmites rhizoma*), and *Scutellaria baicalensis*. Specifically, bamboo leaves have been recorded in Korean traditional medicine as a remedy to reduce heat, calm the body, and alleviate febrile conditions. Additionally, studies using bamboo leaf extract have shown a positive impact on inhibiting the excessive production of inflammatory cytokines such as IL-6 and MCP-1, contributing to anti-inflammatory effects.⁸ Reed roots and *Scutellaria baicalensis* are also known in Korean traditional medicine for their antipyretic effects. A meta-analysis of a randomized controlled trial revealed that the group treated with reed root extract showed a significantly shorter fever reduction time than the control group.⁹ *Scutellaria baicalensis* has been shown through numerous studies to help with anti-inflammatory, antimicrobial, and antioxidant functions.¹⁰ Therefore, these ingredients likely helped alleviate the patient's internal heat and improved the body's internal environment through their anti-inflammatory and antimicrobial effects.

The primary nutrients used to improve the patient's immune function were zinc and vitamin D. Zinc has been shown through various studies to enhance overall immune function and regulate it effectively when taken in adequate amounts. In particular, it helps reduce the activation of innate immune cells such as macrophages, NK cells, and dendritic cells, thereby inhibiting excessive immune responses. Additionally, it promotes the differentiation of adaptive immune cells like T cells and B cells, helping to maintain a balanced immune response.¹¹ Vitamin D plays a role in the differentiation of macrophages in the innate immune system, similar to zinc. It also influences the expression of Th1 and Th17 cells, which cause tissue damage and inflammation in the adaptive immune system, while promoting the expression of regulatory T cells (Treg cells) that suppress excessive autoimmune responses. Additionally, vitamin D can increase the expression of cathelicidin peptides, which have antimicrobial effects, thereby positively influencing the immune response.¹²

Vitamin D is known to not only improve immune function and overall health but also enhance the gut environment. It assists calcium absorption, regulates calcium uptake in the intestines, supports mucus secretion, and protects the intestinal mucosa. Furthermore, studies have shown that vitamin D receptors (VDR) in the intestines are decreased in patients with inflammatory bowel disease (IBD), and supplementing vitamin D can improve the severity of the condition.¹³ Glycine, an amino acid, is known to help improve intestinal physiological functions. This amino acid has been shown to inhibit reactive oxygen species (ROS) activity in intestinal epithelial cells, providing cytoprotective effects. Additionally, in a colitis model, glycine has been found to reduce inflammatory cytokines such as TNF- α and IL-1 β , exhibiting anti-inflammatory properties.¹⁴

As mentioned, the reinforcement of the intestinal mucosa and epithelial cells is crucial for improving gut health. However, the composition of the gut microbiota also significantly influences the overall condition of the intestines. Recent research into this microbiota has highlighted its

growing importance. Postbiotics refer to inactivated microbes or their components and are a newly proposed factor for supporting gut health, following the previously established probiotics and prebiotics. Specifically, postbiotics, which contain substances such as lactic acid or bacteriocins, can lower intestinal pH, inhibit the growth of certain pathogenic bacteria, and help to establish a beneficial gut microbiota.¹⁵ The ingredients mentioned above—zinc, vitamin D, glycine, and postbiotics—are contained in Viva Kids Gold, which was prescribed to supplement the patient's treatment.

The supplementation of these ingredients gradually improved the patient's hyperhidrosis and diarrhea symptoms. Notably, the frequency of using a fan to cool down sweating significantly decreased. The improvement in diarrhea symptoms, which had not shown significant progress with hospital prescriptions, was especially remarkable with OCNT. Additionally, adjusting the OCNT dosage according to the patient's age and condition played a key role in rapidly alleviating symptoms. Since both the patient and guardian expressed a desire for continued OCNT, further dosage adjustments will be made, and the patient's progress will be closely monitored.

However, this case study was conducted on a single patient, and given the patient's age in the early childhood phase, applying the same OCNT to all hyperhidrosis and diarrhea patients may have limitations. Therefore, further research involving OCNT application across different age groups is needed for a more thorough verification of the findings. Nonetheless, this case study seems meaningful as the patient's symptoms significantly improved after being treated with a relatively simple OCNT. Accordingly, this case study is reported with the patient's consent.

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