

## 세포교정영양요법(OCNT)을 이용한 역류성 식도염 개선 사례

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### A Case Report of the Improvement in Reflux Esophagitis Using Ortho-Cellular Nutrition Therapy (OCNT)

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#### ABSTRACT

**Objective:** There are sphincters located at both the upper and lower ends of the esophagus to prevent the backward flow of food. When these sphincters become relaxed or remain open for an extended period, the contents in the stomach can reflux into the esophagus, leading to mucosal damage and resulting in reflux esophagitis. Common symptoms include pyrosis, dysphagia, and regurgitation, and the condition is frequently observed in both adults and children.

**Case Report:** The patient in this case study was a Korean woman in her 50s with a history of long-term use of antibiotics and antiviral medications. Following this, she complained of gastrointestinal symptoms, including dyspepsia and gastric atony. In response, Ortho-Cellular Nutrition Therapy (OCNT) was applied, prescribing anthocyanin, collagen, probiotics, mucin, and *Scutellaria baicalensis* root. After approximately six months of continuous nutritional intervention, the patient reported an improvement in symptoms of reflux esophagitis.

**Conclusion:** The OCNT prescribed according to the patient's condition was found to have a positive effect on the improvement of reflux esophagitis symptoms. Although this case study is based on an individual case and has limitations in terms of generalizability, the significant improvement in the patient's health status suggests that the outcome is meaningful.

**Keywords** Ortho-Cellular Nutrition Therapy (OCNT), reflux esophagitis, gastric atony, dyspepsia, anthocyanin, collagen

#### Introduction

The esophagus functions as a conduit that transports food from the mouth to the stomach through peristaltic movement. It contains sphincters at both the upper and lower ends to prevent the reverse flow of food. When the lower esophageal sphincter becomes inappropriately relaxed or remains open for an extended period, the contents of the stomach and small intestine can reflux into the esophagus. As a result, the esophageal mucosa is damaged by gastric acid, a condition known as reflux esophagitis.<sup>1</sup>

Reflux esophagitis is a prevalent condition among Koreans, with typical symptoms including pyrosis, dysphagia, and regurgitation. Regurgitation of stomach contents into the esophagus can occur briefly, even in healthy individuals.

However, when regurgitation happens frequently and for extended periods, it can cause esophagitis. Frequent reflux of digestive contents mainly occurs when the volume of stomach contents increases, such as after meals or due to excessive gastric acid secretion. The second cause is when contents remain at the gastro-duodenal junction due to certain body positions. The third cause is when increased stomach pressure, as seen in obesity or pregnancy, raises the likelihood of reflux.<sup>2</sup>

Reflux esophagitis is a common condition in both adults and children, with a high and increasing prevalence worldwide. The prevalence of reflux esophagitis in developed countries is estimated to be between 10 and 20%. In the United States, it has been reported as the most common gastrointestinal diagnosis leading to outpatient visits. According to an epidemiological survey in the United States, approximately 8.9 million outpatient visits were recorded in 2009. Although the exact cause of reflux esophagitis is not clearly understood, it is presumed to be closely associated with obesity.<sup>3</sup>

Lifestyle changes and dietary adjustments are necessary to manage reflux esophagitis. A high-fat diet increases the risk of reflux esophagitis, whereas a high-fiber diet reduces its risk. Additionally, several symptom-based studies have reported that weight loss is effective for patients who are overweight or obese in improving reflux esophagitis. Antacids can be used to

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relieve reflux esophagitis symptoms, but excessive use may cause diarrhea or constipation, so short-term use is recommended. The representative surgical treatment for reflux esophagitis is fundoplication. Surgery may be considered if the patient experiences prolonged acid regurgitation or complications such as intestinal metaplasia, ulcers, or strictures.<sup>4</sup>

The patient in this case study visited the hospital complaining of reflux esophagitis, dyspepsia, and gastric atony, but the symptoms did not improve. Therefore, nutrients were prescribed through Ortho-Cellular Nutrition Therapy (OCNT), significantly improving the patient's reflux esophagitis symptoms. Accordingly, with the patient's consent, this case study is reported.

## Case Study

### 1. Subject

This case study involves a patient with reflux esophagitis.

- 1) Name: Jo OO (56 years old / F)
- 2) Diagnosis: Reflux esophagitis
- 3) Date of onset: February 2024
- 4) Treatment period: October 2024 – May 2025 (present)
- 5) Chief complaints: Dyspepsia, gastric atony
- 6) Medical history: Gastritis, gastric spasm, herpes zoster, plantar fasciitis, hypertrophic rhinitis
- 7) Social history: None
- 8) Family history: None
- 9) Current illness and medications: None

### 2. Methods

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

## Results

The patient had been experiencing difficulty digesting food due to gastric atony since last year. Although prescribed medication at a hospital, digestive function further deteriorated, and the patient's weight decreased by 17 kg. Therefore, in October 2024, the patient visited a pharmacy and started OCNT. Yangwibo, Cyaplex Mineral Rock Salt, Aqua SAC Pure, and Heartberry Black were initially prescribed according to the patient's difficulty in digestion, and an improvement in digestive function was confirmed. After one month of OCNT, the patient experienced gradual digestion of food and reported relief from dyspepsia after 3 to 4 months. After six months,

Table 1. OCNT Administered to the Patient

Types	Months				
	1	2	3	4	5
Cyaplex F Granules	101				
Cyaplex F Syrup		101	101	101	
Cyaplex X Granules					101
Collaplex	101				
Bioplex F	101	101	101	101	101
EZplex Capsule	101	101	101	101	101
Gastron Granules	101	101	101	101	101
Yangwibo	101	101	101	101	101
Cyaplex Mineral Rock Salt CellMed	101	101	101	101	101
Aqua SAC Pure	101	101	101	101	101
Heartberry Black	101	101	101	101	101

101: Taken twice daily, one sachet/capsule each morning and evening

reflux esophagitis symptoms improved, and it was reported that the patient was still taking OCNT.

## Discussion

The patient is a Korean woman in her 50s who had been experiencing gastric atony for one year and was diagnosed with reflux esophagitis at a hospital. She had taken antibiotics and antiviral drugs six years ago for herpes zoster and took antibiotics two years ago due to hypertrophic rhinitis caused by the COVID-19 virus. Additionally, she reported developing gastric spasms three years ago after prolonged antibiotic use for a cold. Currently, the patient alternated between Western medicine and traditional herbal medicine for reflux esophagitis, which led to gastric atony and dyspepsia, resulting in a 17 kg weight loss over four months. Therefore, concerns arose about overall gastrointestinal function decline due to long-term antibiotic use, fluid loss, and chronic inflammation caused by an imbalance in gut microbiota. Appropriate nutrients were prescribed to the patient to alleviate gastrointestinal function and improve the balance of beneficial gut bacteria.

The cause of reflux esophagitis is an increase in gastric contents, which was thought to be further aggravated by dyspepsia. Therefore, it was determined that gut microbiota metabolism is important to facilitate the patient's gastrointestinal function. Anthocyanin is a phenolic natural compound abundantly present in vegetables and fruits. Recent studies have shown that anthocyanin intake induces the proliferation of beneficial gut bacteria such as *Bifidobacterium* strains and *Lactobacillus* strains. Additionally, when different anthocyanins are mixed and administered, a synergistic effect occurs, further increasing the number of beneficial bacteria. One of the metabolites of anthocyanin, gallic acid, positively affects the gut environment by reducing harmful bacteria such as *Clostridium histolyticum*.<sup>5</sup> Cyaplex F, Cyaplex X, and Heartberry Black, which were prescribed to the patient, contain abundant anthocyanin. Therefore, these were prescribed to positively influence the gut microbiome and help improve digestive system function.

In addition, improving the function of the esophageal sphincters is considered important for alleviating reflux esophagitis. Collagen is a major component of the extracellular matrix and a key protein that forms connective tissue, essential for the proper functioning of tissues. Recent studies have revealed that collagen affects the physiology and morphology of esophageal muscles. Analysis of genes expressing collagen showed that collagen XIX is expressed in esophageal smooth muscle cells together with  $\alpha$ -smooth muscle actin. Furthermore, it was confirmed that mutations in collagen genes disrupt the proper transition of esophageal smooth muscle into striated muscle, leading to esophageal dilation.<sup>6</sup> Considering that collagen plays an essential role in the structural stability and functional maintenance of esophageal tissue, Collaplex, which contains collagen, was prescribed to promote the improvement of the patient's esophageal sphincter function.

The patient had taken antibiotics for an extended period, which was expected to have negatively affected the intestinal environment. Bioplex F, prescribed to this patient, contains probiotics, which refer to beneficial and live microorganisms in the gut. Intestinal microorganisms perform various functions, such as metabolic activity, maintaining the intestinal barrier, and supplying nutrients, and they also play an important role in maintaining the host's immune function. However, excessive use of antibiotics can cause an imbalance in the microbial

community, leading to dysbiosis in the intestines.<sup>7</sup> Therefore, by prescribing probiotics, the goal was to restore the balance of intestinal microorganisms and improve the physiological functions of the intestines. In addition, EZplex Capsule and Gastron Granules, which were prescribed together, contain mucin complexes. Mucin is one of the main components of the intestinal mucus layer, maintaining moisture and providing lubrication. This mucus layer protects the intestines from external substances and contributes to maintaining intestinal homeostasis by delivering nutrients and attachment sites for intestinal microorganisms.<sup>8</sup> As a result, these prescriptions improved the patient's intestinal environment and microbial balance, aiming to alleviate dyspepsia and enhance overall intestinal function.

The patient has experienced various gastrointestinal disorders over the past few years, and therefore, an overall improvement in gastrointestinal condition was deemed necessary. *Scutellaria baicalensis* root, included in Yangwibo, is a traditional Chinese medicinal herb used for protecting the respiratory and gastrointestinal systems, especially during inflammation. Additionally, research on the metabolic process of *Scutellaria baicalensis* root shows that gut bacteria residing in the gastrointestinal tract metabolize some of its components, activating complement inhibitory and antimicrobial functions. Through these actions, *Scutellaria baicalensis* root plays a vital role in suppressing external infections in the stomach.<sup>9</sup> Therefore, it was prescribed to strengthen the patient's sensitized gastric immune system.

The patient in this case study experienced a severe decline in health due to gastric disease, resulting in a 17 kg weight loss. However, through approximately six months of OCNT, the patient's gastric conditions, including gastric atony and dyspepsia, gradually improved, and it was reported that the patient continues to take the nutrients consistently. This case study was conducted according to the individual circumstances of the patient. Although it has limitations in generalizing to all patients with reflux esophagitis, the patient's health condition significantly improved, producing meaningful results. Accordingly, this report is presented with the patient's consent.

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