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**Case Report** 



# 세포교정영양요법(OCNT)을 이용한 역류성 식도염 및 장상피화생 개선 사례

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## A Case Study on Reflux Esophagitis and Intestinal Metaplasia Using Ortho-Cellular Nutrition Therapy (OCNT)

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#### ABSTRACT

**Objective:** Report on a case of improvement in reflux esophagitis and intestinal metaplasia through Ortho-Cellular Nutrition Therapy (OCNT).

**Methods:** A Korean woman in her 50s suffering from reflux esophagitis and intestinal metaplasia underwent OCNT for approximately 9 months.

Results: After OCNT, reflux esophagitis and intestinal metaplasia improved.

Conclusion: OCNT can aid in alleviating symptoms of reflux esophagitis and intestinal metaplasia.

**Keywords:** Ortho-Cellular Nutrition Therapy (OCNT), reflux esophagitis, intestinal metaplasia, gastrointestinal mucosa

#### Introduction

Reflux esophagitis is a condition that causes inflammation in which the contents of the stomach flow back into the esophagus. Heartburn and acid reflux are common symptoms of reflux esophagitis, typically presenting as a burning sensation rising from behind the sternum to the chest and throat, and sometimes extending to the back. These symptoms usually occur after eating and are more frequent after the consumption of oily or spicy foods, citrus products, fats, chocolate, and alcohol.<sup>1</sup> Additional symptoms include upper abdominal fullness, pressure, pain, indigestion, nausea, abdominal bloating, belching, chronic cough, bronchospasm, wheezing, hoarseness, sore throat, asthma, laryngitis, and tooth erosion.<sup>2</sup>

Reflux esophagitis is one of the most common gastrointestinal disorders and significantly lowers the quality of life. One in ten cases of reflux esophagitis may lead to Barrett's esophagus, which carries a higher risk of developing esophageal adenocarcinoma.<sup>3</sup>

Three primary treatments for reflux esophagitis include: reducing the acid's ability to irritate the esophagus using Proton Pump Inhibitors (PPIs) to block the production of acid by stomach wall cells; employing prokinetic drugs to accelerate gastric emptying; and reducing acid secretion utilizing histamine H2 receptor antagonists to inhibit the histamine H2 receptors on stomach wall cells. Surgery is also an option.<sup>4</sup>

Intestinal metaplasia refers to a precancerous change where the stomach mucosa transforms into intestinal epithelium, increasing the risk of dysplasia and cancer. Key causes include *Helicobacter pylori* infection, genetic factors, environmental factors, rheumatic diseases, dietary factors, and intestinal microbiota. However, there is currently no standard treatment for intestinal metaplasia.<sup>5</sup>

This case study reports significant improvement in a patient with reflux esophagitis and intestinal metaplasia after Ortho-Cellular Nutrition Therapy (OCNT), with the patient's consent obtained for this report.

#### **Case Study**

#### 1. Subject

A case involving a patient with reflux esophagitis and intestinal metaplasia was studied.

- 1) Name: Kim O O (F/52 years old)
- 2) Diagnosis: Reflux esophagitis, intestinal metaplasia
- 3) Date of Onset: July 2023
- 4) Treatment Duration: July 2023 to April 2024
- 5) Primary Symptoms: Indigestion, dizziness, headaches

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6) Medical History: Occasionally prescribed PPIs since July 2019

7) Social History: Alcohol consumption for 10 years (one bottle per week)

8) Family History: None

9) Medications and Treatments Applied: None

### 2. Methods

#### First OCNT

- Cyaplex A granule (101, twice a day, one packet per dose)
- Gastron (101, twice a day, one packet per dose)
- Yangwibo (101, twice a day, one packet per dose)

#### Second OCNT

- Cyaplex A granule (101, twice a day, one packet per dose)
- Gastron (101, twice a day, one packet per dose)
- Calmaplex capsule (202, twice a day, two tablets per dose)

#### Third OCNT

- Cyaplex A granule (101, twice a day, one packet per dose)
- Gastron (101, twice a day, one packet per dose)
- Calmaplex capsule (202, twice a day, two tablets per dose)
- Eufaplex Alpha (101, twice a day, one packet per dose)
- Heartberry Black (001, once a day, one packet per dose)
- Cyaplex Mineral Rock Salt (001, once a day, one packet per dose)
- Aqua SAC Pure (001, once a day, one packet per dose)
- Banha-sasim-tang (111, three times a day, one packet per dose)

Also, avoiding food before bedtime, restricting alcohol intake due to its effect on decreasing sphincter contraction, and avoiding foods that cause indigestion such as flour, milk, sweets, bread, etc. was recommended.

#### Results

The patient was a 52-year-old woman who initially visited the pharmacy in April 2023 with issues of indigestion and gas after taking prescription medications. Subsequently, she started the first OCNT.

After this, the symptoms she complained about almost disappeared, and she built trust in the OCNT. The patient revisited the pharmacy after receiving an endoscopy in July 2023, which diagnosed her with reflux esophagitis.

The second OCNT recommended, including Cyaplex A, Gastron, and Calmaplex capsules. The intake of alcohol was restricted, which can relax the esophageal sphincter.

Her symptoms subsided significantly following the second OCNT. After that, she complained of symptoms of intestinal metaplasia, leading to a third OCNT for six months.

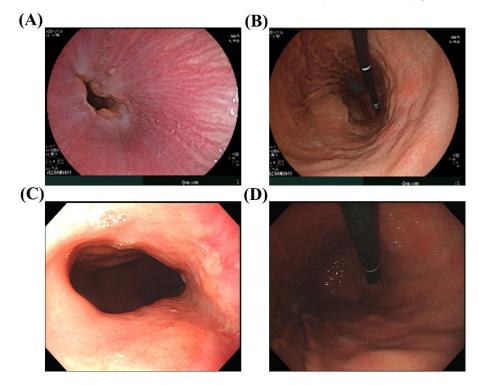
Six months after starting the third OCNT, an endoscopy showed no signs of reflux esophagitis or intestinal metaplasia.

Endoscopic images before and after the OCNT treatment are presented in Fig. 1.

#### Discussion

The subject of this case study was a Korean woman in her fifties who began to experience bloating after being prescribed PPIs at the hospital in April 2023. She started the first phase of OCNT with Cyaplex A, Gastron, and Yangwibo as a result.

Anthocyanins found in Cyaplex A have anti-inflammatory



**Fig. 1. Endoscopic images of the patient before OCNT in July 2023 (A, B) and after OCNT in April 2024 (C, D).** Before OCNT, the mucosa around the esophagus was red and swollen, and the folds of the stomach wall were abnormally thick. After OCNT, endoscopic results showed significant improvement in the mucosa, and the stomach wall folds returned to normal levels. Additionally, there were no unusual findings other than a positive test for *Helicobacter pylori*.

and antioxidant effects that can reduce inflammation in the gastrointestinal tract, protect against oxidative stress, and help balance the intestinal microbiota, thereby alleviating the symptoms of indigestion.<sup>6,7</sup>

Alginate is more effective than placebos or antacids for treating reflux esophagitis in patients who do not respond to PPI treatment.<sup>8</sup>

Mucin contained in Gastron protects the esophagus from reflux and acts as a crucial defensive factor in protecting the gastrointestinal mucosa from intestinal metaplasia and *Helicobacter pylori*.<sup>9,10</sup> Enzymes improve symptoms of indigestion,<sup>11</sup> and licorice has various roles including antiinflammatory effects. Also, flavonoid components in licorice show significant activity against *Helicobacter pylori* and other antibiotic-resistant strains.<sup>12,13</sup>

Yangwibo's cornelian cherry fruit significantly improves functional dyspepsia by reducing the residual ratio in the stomach and increases intestinal motility, as well as the intake of food and water, and levels of gastrointestinal hormones.<sup>14</sup> Mandarin peel has bioactive properties in the digestive system,<sup>15</sup> and rhizome of *Atractylodes lancea* significantly improves pathological damage in gastric tissues.<sup>16</sup> Peony root and *Atractylodes* rhizome alleviate indigestion symptoms by improving delayed gastric emptying, whereas cinnamon twig helps improve gastric health by reducing gastric mucosal damage and stomach acid.<sup>20</sup> Ginger eradicates *Helicobacter pylori* and aids in relieving symptoms of indigestion.<sup>21</sup>

After the bloating subsided, the patient diagnosed with reflux esophagitis in July of the same year by following endoscopy. She visited the pharmacy and the second phase of OCNT was implemented after explaining the side effects of PPI. While PPIs are commonly prescribed for acid-related disorders, they can potentially lead to osteoporosis and an increased risk of fractures by interfering with calcium absorption.<sup>22</sup> Therefore, the second OCNT excluded Yangwibo from the first OCNT and added Calmaplex capsules, along with restricting alcohol intake.

Calmaplex contains marine calcium, which is more effective in improving bone health compared to synthetic calcium.

Although there was significant improvement in her symptoms, the patient also complained about intestinal metaplasia, prompting the start of the third OCNT. In the third OCNT, Calmaplex capsules were removed, and Eufaplex Alpha, Heartberry Black, Cyaplex Mineral Rock Salt, Aqua SAC, and Bioplex were recommended for six months.

In patients with dyspepsia caused by *Helicobacter pylori* infection, excessive levels of toxic nitric oxide (NO) are produced. This leads to lipid oxidation and damage to cell membranes, ultimately generating nitrosative stress that leads to abnormal cell death.<sup>23</sup> The polyunsaturated fatty acids (PUFAs, including omega-3, omega-6, and omega-9 fatty acids) in Eufaplex Alpha help reduce these symptoms and are beneficial in inducing mucosal recovery.<sup>24</sup>

Cyaplex mineral rock salt enhances the secretion of gastric juice, increases the pH of gastric acid, and boosts antioxidant activity, thus helping to prevent gastric damage.<sup>25</sup>

Reflux esophagitis can be influenced by specific microbial groups acting as risk determinants,<sup>26</sup> The active probiotics and

prebiotics in Bioplex address imbalances in the intestinal microbiota.<sup>27</sup>

Subsequent endoscopic examinations showed a positive response for *Helicobacter pylori* but no signs of intestinal metaplasia or reflux esophagitis.

This case report is a single instance and cannot universally applied to all patients with reflux esophagitis and intestinal metaplasia. However, after implementing simple OCNT, the patient's quality of life significantly improved. Therefore, this case has been reported with the patient's consent.

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