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Case Report

세포교정영양요법(OCNT)을 이용한 비만 개선 사례

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A Case Report of Improvement of Obesity Using Ortho-Cellular Nutrition Therapy (OCNT)

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ABSTRACT

Objective: Obesity is a significant medical issue that goes beyond simple weight gain, serving as a key factor in the development of various metabolic diseases. Generally, a body mass index (BMI) of 25 or higher is considered overweight, and 30 or higher is considered obese. However, even individuals with a normal BMI may develop metabolic disorders due to abdominal obesity or ectopic fat accumulation. Dietary management and lifestyle modification are the primary interventions for obesity treatment, although pharmacological therapy is sometimes combined. Recently, GLP-1 receptor agonists have received attention for obesity treatment, but gastrointestinal adverse effects such as nausea, vomiting, and diarrhea are common.

Case Report: This case study involved a Korean man in his 40s who had maintained a muscular overweight status for the past 15 years and complained of abdominal obesity and knee pain. Ortho-Cellular Nutrition Therapy (OCNT) prescribing plant-based protein, anthocyanins, green coffee bean extract, and *Garcinia cambogia* was implemented. As a result, the patient's body weight decreased by 1.5 kg, and body fat mass decreased by 2.2 kg.

Conclusion: The patient experienced reductions in both body weight and body fat through OCNT; however, as this observation was limited to a single case over a short period, further research is needed to determine whether the same effects are consistent in patients with different body types. Nevertheless, the results are meaningful in demonstrating that OCNT can contribute to body fat reduction even while maintaining existing lifestyle habits.

Keywords Ortho-Cellular Nutrition Therapy (OCNT), dietary management, obesity, GLP-1, *Garcinia cambogia*

Introduction

Obesity is a significant medical issue that extends beyond simple weight gain, acting as a key contributor to the development of various metabolic disorders, including diabetes, coronary artery disease, cancer, and sleep apnea. Although criteria vary by sex and age, a body mass index (BMI) of 25 or higher is generally considered overweight, and 30 or higher is classified as obese. However, even individuals with a BMI within the normal range may develop metabolic disorders due to abdominal obesity or ectopic fat accumulation. The global prevalence of obesity results from a combination of factors, including genetic predisposition, increased consumption of high-calorie foods, and reduced physical activity in modern society. Therefore, obesity should not be regarded merely as an individual aesthetic issue but as a pandemic phenomenon that poses a serious threat to public health worldwide.[1]

White adipose tissue functions as an endocrine organ, producing and secreting adipokines that mediate various physiological activities, including the enhancement of insulin sensitivity, metabolic regulation, and appetite suppression. However, as obesity progresses and adipose tissue expands excessively, an imbalance in adipokine secretion occurs, leading to metabolic disturbances that significantly contribute to insulin resistance, type 2 diabetes, fatty liver, hypertension, and increased risk of cardiovascular disease. In particular, the secretion of adiponectin, an anti-inflammatory adipokine,

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decreases sharply in the obese state, whereas the secretion of pro-inflammatory adipokines, such as TNF-α and IL-6, increases.[2]

In obesity treatment, dietary management and lifestyle modification serve as the primary interventions, although pharmacological therapy is sometimes combined. Appetite suppressants, such as phentermine, phendimetrazine, and lorcaserin, primarily act on the central nervous system, particularly through catecholamine or serotonin pathways in the brain. While these drugs can effectively suppress appetite, their use may be associated with adverse effects ranging from mild reactions, such as insomnia, palpitations, and increased blood pressure, to more serious cardiovascular and central nervous system complications. Notably, long-term use can lead to reduced efficacy and the development of tolerance.[3]

Recently, GLP-1 receptor agonists have gained attention for obesity treatment, with semaglutide and liraglutide being the most prominent examples. These drugs delay gastric emptying to increase satiety and exert appetite-suppressing and blood glucose–regulating effects by promoting insulin secretion and inhibiting glucagon release. Consequently, they are used in the treatment of both type 2 diabetes and obesity. The half-life of these drugs has been artificially extended to maintain efficacy, but gastrointestinal adverse effects, such as nausea, vomiting, and diarrhea, are common. In some patients, serious adverse events—including gallbladder disease, hypoglycemia, pancreatitis, and tumor development—have also been reported.[4]

The cornerstone of obesity treatment is long-term management based on lifestyle modification, and pharmacological therapy should be selected carefully with full awareness of both its potential benefits and limitations. The patient in this case study had maintained an overweight status for 15 years, resulting in abdominal obesity and knee pain. Ortho-Cellular Nutrition Therapy (OCNT) was implemented to achieve improvement. As a result, positive effects on appetite regulation and fat metabolism were observed over a short period, suggesting the potential of OCNT as an adjunctive treatment for patients with obesity.

Case Study

1. Subject

This case study involved a single patient with obesity.

1) Name: So OO (42 years old, M)
2) Diagnosis: Obesity
3) Date of onset: January 2010
4) Treatment period: June 14, 2025 – present
5) Chief complaints: Abdominal obesity, joint pain
6) Medical history: None
7) Social history: Alcohol consumption (4–5 bottles per week)
8) Family history: Hypertension, diabetes, hyperlipidemia, colorectal cancer
9) Current illness and medications: None

2. Methods

Sarcoplex (100, once daily, one sachet per dose)
Heartberry Black (100, once daily, one sachet per dose)
Nexitop Pytogen AC (011, twice daily, one sachet per dose)
Nexitop Pytogen PC (011, twice daily, one sachet per dose)
Sarcoplex and Heartberry Black were mixed with ABC (apple, beetroot, and carrot) juice and consumed in the morning. The patient also engaged in regular exercise: 50 minutes of strength training 1–2 times per week, 50 minutes of golf 2–3 times per week, and 60 minutes of soccer 2–3 times per month.

Results

The patient reported experiencing knee and ankle pain during exercise due to being overweight. OCNT was implemented, and other previously used supplements were discontinued to better observe changes. In the morning, the patient took Sarcoplex and Heartberry Black, while maintaining usual meals. After taking Nexitop, the patient's meal intake slightly decreased, and snack consumption was reduced by approximately half. The patient's level of physical activity remained essentially unchanged compared to prior habits.

Before OCNT, the patient's weight (measured without clothing) was 75 kg, which decreased to 74.3 kg by the third day of administration. Following supplementation, the patient reported increased urine output and dry mouth, leading to higher fluid intake, and experienced a sense of reduced edema. Additionally, cravings for snacks and actual consumption decreased markedly, and the patient reported improved exercise performance as body weight decreased. The patient expressed high satisfaction with the reduction in dietary desire and planned to continue long-term use of OCNT to prevent weight regain and maintain ongoing weight management. Changes in the patient's body weight during the OCNT period are presented in Fig. 1.

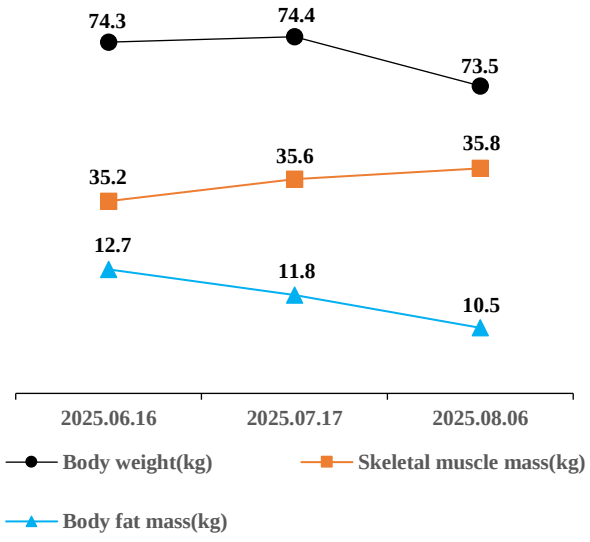

Fig.1 Patient's body weight, skeletal muscle mass, and body fat mass during the OCNT period. The patient's weight and body fat mass decreased overall, while skeletal muscle mass increased continuously.

Discussion

The patient in this case study was a man in his 40s who regularly engaged in aerobic and strength training, including soccer, and therefore had relatively high muscle mass. However, from his mid-to-late 20s, frequent company dinners and alcohol consumption led to a persistently elevated body mass index (BMI) of 25 or higher, with his weight reaching a maximum of 80 kg. Over the past two years, he maintained a weight of approximately 75 kg, but due to a preference for snacks and frequent social drinking, his weight had not dropped below 74 kg for the past 15 years.

The patient was classified as "muscular overweight," and after two months of OCNT, his previously stable weight and body fat approached target levels. Despite minimal changes in exercise or diet, body fat decreased significantly; notably, even with an already low body fat percentage, he experienced a reduction of more than 2 kg in fat mass within two months. Simultaneously, muscle mass increased slightly over the same period, suggesting that OCNT contributed not only to fat loss but also to overall improvement in body composition.

Sarcoplex, prescribed to the patient, is rich in plant-based protein. Compared with animal protein, plant protein has been shown to help prevent obesity. A national dietary survey in Belgium reported that men consumed significantly more animal protein than women. In men, animal protein intake was positively correlated with BMI and waist circumference, whereas plant protein intake was negatively correlated with these measures in both sexes. These findings suggest that plant protein may have a protective effect against overweight and obesity.[5] Based on this evidence, plant protein was prescribed to the patient to help reduce body fat.

Heartberry Black, which was also prescribed, contains anthocyanins. Anthocyanins are a subclass of flavonoids and are abundantly found in flowers, fruits, seeds, and plant leaves. They possess antimicrobial, antioxidant, anti-inflammatory, and antimutagenic properties, contributing to the prevention of cardiovascular and various chronic diseases. Obesity has been reported in multiple studies to be associated with chronic inflammation. Recent research has also shown that the intake of bioactive compounds, such as phenolic compounds, can reduce the risk of obesity and related chronic diseases.[6] Therefore, anthocyanin intake was prescribed to the patient to provide anti-inflammatory and antioxidant effects, thereby exerting a beneficial influence on obesity.

Nexitop Pytogen AC was also prescribed to the patient to aid in body fat reduction. It contains green coffee bean extract, which has been shown to help prevent obesity and improve insulin resistance. In one study, supplementation with green coffee bean extract in mice fed a high-fat diet led to reductions in plasma lipid and glucose levels, as well as decreased insulin resistance, resulting in a more rapid postprandial glucose decline. Additionally, green coffee bean extract suppressed the expression of genes related to adipocyte formation and TLR4-mediated inflammatory pathways, thereby inhibiting fat accumulation induced by a high-fat diet.[7]

Nexitop Pytogen PC contains *Garcinia cambogia* extract. *Garcinia cambogia* is an edible fruit belonging to the *Clusiaceae* family, native to parts of South Asia and Africa, and has historically been used for gut health and parasite treatment. It contains various organic acids, benzophenones, and xanthones, which exhibit anti-inflammatory and antihyperlipidemic effects. Experimental studies have shown that *Garcinia cambogia* extract significantly influences weight reduction, with notable decreases in BMI, body fat percentage, and waist circumference.[8] Based on this evidence, these components were prescribed to the patient to support reductions in body fat percentage.

Obesity is a major risk factor for metabolic disorders, making long-term management and lifestyle modification essential. However, in practice, many patients struggle to achieve or maintain weight loss through diet and exercise alone. Pharmacological therapy is sometimes combined, but the use of conventional appetite suppressants and synthetic GLP-1 analogs is limited due to adverse effects, tolerance, and reduced adherence. The plant-based multi-ingredient formulations used in this case study are known to promote appetite reduction and metabolic improvement by stimulating GLP-1 secretion and inhibiting its degradation.

According to previous literature, GLP-1 analogs have been associated with gastrointestinal disturbances, pancreatitis, gallbladder disease, and potential tumor risks, which restrict long-term use.[3] In contrast, the plant-based formulations observed in this case study demonstrated relatively mild adverse effects and high patient adherence. Initial observations included dry mouth and increased urination, which were manageable with increased fluid intake and did not result in any complications.

This case is limited by being a single-subject study over a short observation period, and large-scale studies are needed to provide evidence on long-term outcomes and safety. Furthermore, given the patient's unique body type with high muscle mass, additional research is required to determine whether similar effects would be observed in individuals with different body compositions. Nevertheless, this case demonstrates that OCNT can reduce snack consumption and body fat. Importantly, it also shows potential for improving body composition even while maintaining existing lifestyle habits, suggesting that OCNT may serve as an adjunctive option for managing obesity without the adverse effects associated with synthetic drugs.

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