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Case Report

세포교정영양요법(OCNT)을 이용한 체지방 과다 개선 사례

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A Case of Improvement of Excess Body Fat Using Ortho-Cellular Nutrition Therapy (OCNT)

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ABSTRACT

Objective: Body fat is a connective tissue present in the human body that plays an essential role such as energy storage, protection of organs from external shocks, and the regulation of hormonal responses. However, when present in excess, it increases the incidence and mortality of chronic diseases, making proper management necessary. To this end, various methods have been employed, including lifestyle modification, pharmacological treatment, and surgical approaches. Recently, therapeutics targeting GLP-1 receptors have attracted attention. Nevertheless, adverse effects such as gastrointestinal disorders and gallbladder complications have been reported, leading to growing interest in natural product–based GLP-1 receptor agonists with fewer side effects as alternatives.

Case Report: The subject of this case study was a Korean woman in her twenties who was diagnosed with excess body fat through a body composition test and wished to manage it. Accordingly, ortho-cellular nutrition therapy (OCNT), using ingredients such as turmeric, hibiscus, bitter melon, barberry, green tea, and *Garcinia cambogia*, was prescribed. After one week of OCNT, a follow-up body composition test confirmed that the patient's body fat mass and body fat percentage had changed to within the reference range.

Conclusion: Appropriate OCNT tailored to an individual's physical condition and circumstances may help reduce body fat. However, since this case study was conducted with a single subject, further research is required to investigate OCNT prescriptions suited to other populations.

Keywords Ortho-Cellular Nutrition Therapy (OCNT), body fat, body composition, GLP-1

Introduction

Body fat is a type of connective tissue distributed throughout the body that performs essential functions, including energy storage and balance, protection of organs from external shocks, and regulation of hormonal responses. However, excessive body fat, i.e., obesity, can increase the incidence and mortality of various chronic diseases, such as cancer, hypertension, diabetes, and cardiovascular disease. Generally, obesity is assessed using the body mass index (BMI). However, this index does not directly measure body fat and may be elevated in individuals with high muscle mass; therefore, direct fat indicators, such as body fat percentage, should also be taken into account.[1]

Proper management of overweight and excessive body fat can reduce the incidence of chronic diseases, making it essential for maintaining health through various approaches. These approaches can be broadly classified into lifestyle modification, pharmacological intervention, and surgical methods. Lifestyle modification involves regulating physical activity through exercise and adjusting dietary intake, such as reducing caloric consumption, limiting processed foods and fructose, and increasing fruit and vegetable intake. Pharmacological intervention includes either reducing the use of medications that contribute to weight gain or administering anti-obesity drugs. Surgical methods can be further divided into non-surgical and surgical approaches. A representative non-surgical method is endoscopic intragastric balloon insertion, while a surgical approach includes laparoscopic Roux-en-Y gastric bypass to reduce stomach size.[2]

Recently, obesity treatments targeting the Glucagon-like peptide-1 (GLP-1) receptor, such as Saxenda, Ozempic, Wegovy, and Mounjaro, have received significant attention.

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This receptor is expressed in various tissues in the body and induces effects such as stimulation of insulin secretion, suppression of glucagon secretion, delayed gastric emptying, and central appetite suppression. Through these mechanisms, GLP-1 receptor agonists have been applied as diabetes treatments due to their blood glucose regulation and metabolic syndrome–improving effects. They have also been found to aid in reducing fat synthesis in addition to appetite suppression, making them useful for obesity treatment. However, adverse effects, including gastrointestinal reactions such as nausea, vomiting, and diarrhea, as well as gallbladder-related disorders such as cholelithiasis and cholecystitis, have been reported in some users. Furthermore, injectable formulations present limitations, including high cost, the burden of continuous administration, and injection-related reluctance, resulting in lower adherence and persistence. Therefore, recently, natural product–based GLP-1 receptor agonists have attracted considerable interest as alternatives.[3-5]

The subject of this case study visited a pharmacy seeking body fat management and underwent Ortho-Cellular Nutrition Therapy (OCNT) to regulate body fat. As a result, the patient experienced not only a reduction in body fat but also improvements in fatigue and bowel habits. With the subject's consent, this case is presented in this report.

Case Study

1. Subject

This case study involved a single adult requiring management due to a high body fat percentage.

1) Name: Lee OO (29 years old, F)
2) Diagnosis: Body composition abnormality (excess body fat)
3) Date of onset: July 2, 2025
4) Treatment period: July 2, 2025 – July 9, 2025
5) Chief complaints: Above-normal body fat percentage, fatigue
6) Medical history: Mammotome surgery for breast fibroadenoma in August 2022
7) Social history: Occasional alcohol use (1–2 times/month); non-smoker
8) Family history: None
9) Current illness and medications: None

2. Methods

The following OCNT regimen was prescribed:

• Nexitop Pytogen AC (101, twice daily, one sachet per dose)
• Nexitop Pytogen PC (101, twice daily, one sachet per dose)
The patient was instructed to take the OCNT regimen for one week, with Nexitop AC taken 1 hour before meals and Nexitop PC taken immediately after meals.

In addition, the following measures were recommended to be combined with OCNT:

• The previously administered OCNT products, Bioplex F Granules (001, once daily, one sachet per dose) and Cyaplex X Granules (001, once daily, one sachet per dose), were continued in combination with the newly prescribed OCNT.
• The patient was advised to continue her current exercise routine (personal training twice per week and weight training) without additional caloric restrictions. However, dietary adjustments were recommended to reduce processed foods and take-out meals.
• To improve medication adherence, the patient was instructed to take photos of each OCNT dose with the time recorded, allowing continuous monitoring of compliance.

Results

The subject of this case study took the prescribed OCNT for one week, and body weight, body fat mass, skeletal muscle mass, and body fat percentage were measured using a body composition analyzer. Comparison of body composition before and after OCNT administration showed a reduction in body fat mass and body fat percentage. Although body weight increased, this was attributed to increased skeletal muscle mass and body water retention. Changes in the subject's physical parameters are shown in Fig. 1.

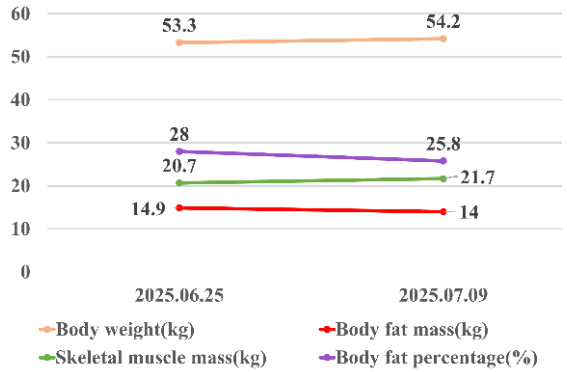

Fig. 1. Changes in the subject's physical parameters before and after OCNT
* Normal body fat percentage for females: 18% to less than 28%

Discussion

The subject of this case study was a Korean woman in her twenties who visited a pharmacy to manage her body fat, as her body weight and BMI were within the normal range, but her body fat percentage was above standard. According to the subject's medical history, she had no prior experience with GLP-1–targeted injectables such as Wegovy, but had previously used dietary supplements. However, she reported experiencing adverse effects, including diarrhea, while taking supplements, and described taking multiple pills at once as a psychological barrier.

Accordingly, OCNT was applied for one week, after which the dosage and frequency were to be adjusted based on changes in body composition, the extent of adverse effects, and medication adherence. During the OCNT period, the subject was instructed to avoid processed foods, continue her existing exercise routine, and consistently monitor the timing of OCNT intake.

The primary focus when prescribing OCNT to the subject was to use natural ingredients to minimize adverse effects while promoting body fat reduction. The prescribed Nexitop AC and PC contain various natural components. These components can contribute to body fat reduction through three main mechanisms: activation of the GLP-1 receptor,

improvement of insulin resistance, and promotion of body fat reduction.

The aim was to utilize natural ingredients that activate the GLP-1 receptor, thereby supporting weight reduction. These ingredients included cinnamon, turmeric, probiotics, *Polygonum cuspidatum*, and hibiscus. Clinical trials have shown that oral administration of cinnamon and turmeric increases GLP-1 secretion. Notably, turmeric was also found to enhance GLP-1 secretion in preclinical studies.[6, 7] Furthermore, animal studies demonstrated that probiotics, *Polygonum cuspidatum* (resveratrol), and hibiscus increase GLP-1 expression. Specifically, co-administration of probiotics and Polygonum cuspidatum resulted in a greater increase in GLP-1 expression, while hibiscus produced a significant increase even when administered alone.[8, 9]

Additionally, when blood glucose levels decrease, the body simultaneously increases the use of fat as an energy source, which can contribute to long-term body fat reduction. This can be considered a concurrent and interactive physiological process.[10] Therefore, in addition to inducing GLP-1 expression, ingredients that help regulate blood glucose were incorporated, including barberry fruit (berberine), bitter melon, and broccoli (sulforaphane). Bitter melon has been shown in studies on patients with type 2 diabetes to significantly lower blood glucose without serious adverse effects, and barberry fruit has similarly been observed to help reduce fasting blood glucose and glycated hemoglobin levels without major adverse effects..[11,12] The sulforaphane in broccoli has been observed to suppress the expression of gluconeogenic genes in the liver, thereby inhibiting glucose production and contributing to improvements in fasting blood glucose and glycated hemoglobin levels.[13]

Finally, ingredients that can induce body fat reduction were applied to support changes in the subject's body fat. In this regard, green tea (catechins) and *Garcinia cambogia* were used. In a randomized double-blind trial, the group that consistently consumed green tea showed a significant reduction in body composition and fat area compared to the control group.[14] The main active component of *Garcinia cambogia*, hydroxycitric acid (HCA), has been shown to inhibit the de novo synthesis of fat and cholesterol, suppress intestinal fat absorption, and increase central serotonin levels, thereby contributing to reductions in body fat and body weight.[15]

Through this OCNT regimen, the subject's body composition analysis showed reductions in body fat mass and body fat percentage, and she reported increased vitality. These outcomes are believed to reflect the significant effects of an OCNT prescription tailored to the patient's condition and symptoms, combined with dietary adjustments and continued exercise. Notably, overall body fat decreased despite the absence of caloric restriction. Although the timing of intake was occasionally irregular, overall medication adherence was good, and no adverse effects were reported except for diarrhea on the first day of administration. Consequently, the patient expressed a desire to continue OCNT, and ongoing management was confirmed.

Since this case study involved only a single subject, its applicability to all individuals requiring body fat management is limited, and further research is needed to determine OCNT prescriptions suitable for broader populations. Nevertheless, the ability to induce body fat reduction through a simple OCNT regimen, along with the high satisfaction reported by the subject, is considered meaningful. Therefore, this case is reported with the subject's consent.

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