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Case Report

세포교정영양요법(OCNT)을 이용한 갑상선 기능 저하증 개선 사례 보고

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Improvement of Hypothyroidism with Ortho-Cellular Nutrition Therapy (OCNT): A Case Report

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ABSTRACT

Objective: The thyroid is an endocrine organ located in the anteroinferior neck beneath the cricoid cartilage. It produces various hormones, including thyroxine (T4), triiodothyronine (T3), and thyroid-stimulating hormone (TSH), and it plays a key role in regulating overall bodily functions. When secretion is excessive or insufficient, hyperthyroidism or hypothyroidism can be diagnosed, and dysfunction may occur throughout the body. Diagnosis is established by measuring serum thyroid hormone levels, after which an appropriate treatment is applied.

Case Report: This case involves a Korean woman in her 50s who reported persistent discomfort across multiple systems—including gastrointestinal, respiratory, dermatologic, and neurologic—and was found on routine health screening to have hypothyroidism, with concurrent hyperlipidemia and anemia. Accordingly, she was prescribed Ortho-Cellular Nutrition Therapy (OCNT) using iodine, selenium, iron, omega-3 and omega-6 fatty acids, red yeast rice extract, anthocyanins, silymarin, and minerals. After OCNT, elevated TSH and cholesterol levels returned to the normal range, and her reported symptoms improved.

Conclusion: Because this report concerns a single patient, the generalizability of applying the same OCNT to all individuals with hypothyroidism is limited. Nevertheless, the case suggests that an appropriately tailored OCNT regimen can improve thyroid function in hypothyroidism and enhance the quality of daily life.

Keywords Ortho-Cellular Nutrition Therapy (OCNT), thyroid function, thyroid hormones, trace elements

Introduction

The thyroid gland is a butterfly-shaped endocrine organ located in the anterior neck, below the cricoid cartilage, and it consists of numerous follicles. It is the earliest endocrine organ to appear during human embryogenesis, emerging at approximately day 22. The gland synthesizes and secretes various thyroid hormones (TH) and maintains iodine homeostasis. It plays a key role in regulating the cardiovascular, nervous, gastrointestinal, and reproductive systems as well as skin and brain function, and its activity varies with the body's requirement for TH and the availability of iodine.[1]

TH include thyroxine (T4), triiodothyronine (T3), thyroid-stimulating hormone (TSH), calcitonin, and so on. They generally bind nuclear receptors, modulate neuronal responses, and influence gene expression pathways. When TSH is released from the pituitary gland and reaches the thyroid, it binds to the TSH receptor on follicular cells and promotes the synthesis and secretion of T4 and T3. The resulting T4 and T3 support cell proliferation, angiogenesis, and metabolic regulation, thereby maintaining systemic homeostasis.[2]

If the secretion of TH is excessive or insufficient, thyroid function becomes abnormal and affects the body. In such cases, excess secretion is termed hyperthyroidism, whereas deficiency is termed hypothyroidism. Because TH influences whole-body function and homeostasis, both conditions can affect metabolic responses and multiple systems, including the cardiovascular, gastrointestinal, dermatologic, musculoskeletal, and nervous systems. However, as hyperthyroidism and hypothyroidism are linked to increased and decreased metabolism, respectively, their clinical manifestations are usually opposite. For example, body weight tends to decrease in hyperthyroidism and increase in hypothyroidism, and in the gastrointestinal tract, particularly the bowel, hyperthyroidism often presents with frequent diarrhea

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and loose stools, whereas hypothyroidism presents with constipation.[3, 4]

Thyroid dysfunction as described above arises from a multifactorial interplay of autoimmune disease, iodine imbalance, genetic and environmental factors, lifestyle and diet, comorbid conditions, radiation exposure, pregnancy, childbirth, and menopause, with additional determinants such as sex and age. Primary evaluation relies on serum TSH and T4: in hyperthyroidism, TSH decreases, and higher T4 indicates greater severity; in hypothyroidism, elevated TSH with low T4 defines overt disease, whereas elevated TSH with normal T4 indicates subclinical hypothyroidism. Current management typically employs antithyroid drugs for hyperthyroidism or levothyroxine for hypothyroidism together with symptomatic measures; however, these agents can cause adverse effects, including cardiac and skeletal complications, agranulocytosis, and hepatic injury, underscoring the need for careful symptomatic therapy and consideration of additional treatment approaches.[3, 4]

This case report describes a patient diagnosed with hypothyroidism who underwent Ortho-Cellular Nutrition Therapy (OCNT). The patient reported daily-life discomfort due to diverse symptoms involving the gastrointestinal, respiratory, dermatologic, and neurologic systems and showed improvement in these symptoms with OCNT. The case is presented with the patient's consent.

Case Report

1. Subject

A single case of hypothyroidism was included.

1) Name: Lee OO (53 years/F)
2) Diagnosis: Hypothyroidism
3) Onset: August 2022
4) Treatment period: September 2022–March 2023, April 2025–June 2025
5) Chief complaints: chronic fatigue, halitosis, esophagitis, gastritis, enteritis, constipation, abdominal bloating, edema, sensation of incomplete bladder emptying, decreased concentration, nervous irritability, forgetfulness, snoring, hair thinning, dyspnea, pruritus, urticaria
6) Past history: pyelonephritis
7) Social history: none
8) Family history: younger brother—carotid artery stenosis, diabetes mellitus, vascular stent placement due to atherosclerotic cardiovascular disease
9) Current history and medications: hyperlipidemia, borderline diabetes, anemia

2. Methods

The OCNT prescribed to the patient is detailed in Table 1. The patient was also instructed to reduce coffee intake and to maintain regular meals as part of lifestyle modification.

Results

Before OCNT, a health screening showed that TSH exceeded the reference range, and the patient was diagnosed with hypothyroidism. Total cholesterol was at a borderline level according to the reference criteria, and LDL-cholesterol exceeded the reference range, leading to an additional diagnosis of hyperlipidemia. After three months of OCNT, a follow-up screening confirmed that TSH, total cholesterol, and LDL-cholesterol had reached the normal range. Most reported symptoms also improved, and the first treatment period was concluded. The values obtained after the health screenings performed during this period are presented in Figs. 1 and 2.

Table 1. OCNT prescribed to the patient.

Period	Cycle	Prescribed products and dosing frequency		Notes
OCNT Period 1	1st cycle (Sep 2022–Nov 2022)	- Cyaplex X granules 202 - Thyroplex granules 101 - Hemoplex capsules 202 - Cyaplex mineral bamboo salt 101*	- Eufaplex Alpha 202 - Monacol capsules 202 - Aqua SAC pure 101* - Heartberry black 101*	* Instructed to take after diluting in 500 mL of water.
	2nd cycle (Nov 2022–Jan 2023)	- Cyaplex X granules 202 - Thyroplex granules 202 - Hemoplex capsules 202 - Viva kan capsules 101 - Cyaplex mineral bamboo salt 101*	- Eufaplex Alpha 202 - Monacol capsules 202 - Selenplex capsules 202 - Aqua SAC pure 101* - Heartberry black 101*	* Instructed to take after diluting in 500 mL of water.
	3rd cycle (Jan 2023–Mar 2023)	- Cyaplex X granules 202 - Thyroplex granules 202 - Hemoplex capsules 202 - Viva kan capsules 101 - Cyaplex mineral bamboo salt 101*	- Eufaplex Alpha 202 - Monacol capsules 202 - Selenplex capsules 202 - Aqua SAC pure 101* - Heartberry black 101*	* Instructed to take after diluting in 500 mL of water.
OCNT Period 2	1st cycle (Apr 2025–May 2025)	- Cyaplex X granules 101 - Tmplex F granules 101 - Bioplex F 101 - Selenplex capsules 202 - Viva kan capsules 101	- Eufaplex Alpha capsules 303 - Collaplex granules 101 - Thyroplex granules 101 - Hemoplex capsules 202 - Cyaplex mineral bamboo salt 101	-
	2nd cycle (May 2025–Jun 2025)	- Cyaplex X granules 101 - Tmplex F granules 101 - Bioplex F 101 - Selenplex capsules 202 - Viva kan capsules 101 - Sacoplex 101	- Eufaplex Alpha capsules 303 - Collaplex granules 101 - Thyroplex granules 101 - Hemoplex capsules 202 - Cyaplex mineral bamboo salt 101	-

• 101: take twice daily, one sachet/capsule in the morning and in the evening. 202: take twice daily, two sachets/capsules in the morning and in the evening, 303: take three times daily, three sachets/capsules in the morning and in the evening.

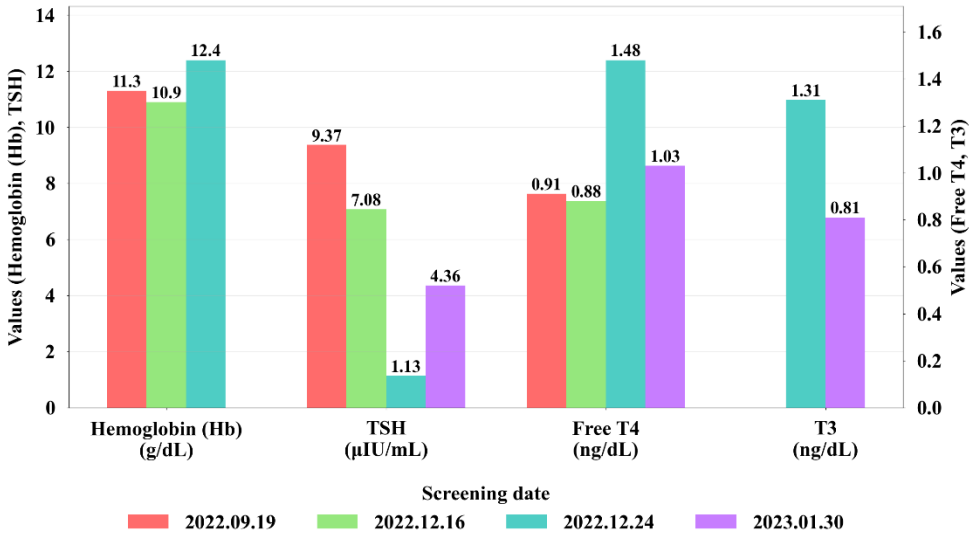

Fig. 1. Hemoglobin, TSH, Free T4, and T3 levels from the patient's health screening.
* Normal ranges for each parameter: hemoglobin 12 – 16 (g/dL), TSH 0.27 – 4.20 (μIU/mL), Free T4 0.93 – 1.70 (ng/dL), T3 0.8 – 2.0(ng/dL)

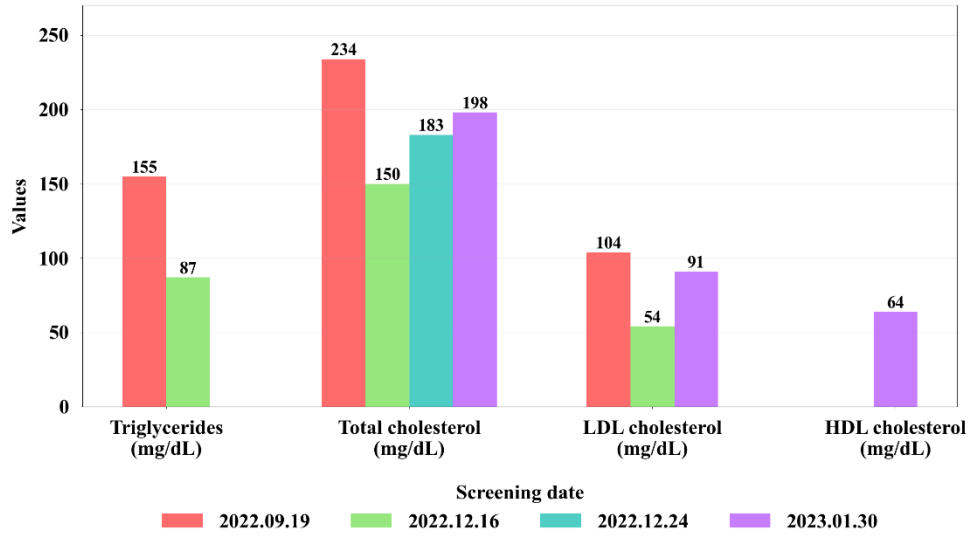

Fig. 2. Triglycerides, total cholesterol, LDL cholesterol, HDL cholesterol levels from the patient's health screening results.
* Normal ranges for each parameter: triglycerides 150 or below (mg/dL), total cholesterol under 200 (mg/dL), LDL cholesterol under 130 (ng/dL), HDL cholesterol 40 or above (ng/dL)

Subsequently, around April 2025, symptoms including a thyroid nodule, edema, low back pain, cystitis, dry skin, cold extremities, and pruritus developed, and a second OCNT period was prescribed. After OCNT, the patient showed overall symptom relief and reported recovery of the quality of daily life.

Conclusions

The patient in this case was a Korean woman in her fifties who reported discomfort from diverse symptoms, including chronic fatigue, halitosis, various gastrointestinal complaints, impaired concentration, and pruritus. Therefore, she was advised to undergo a health screening, which showed thyroid hormone and cholesterol levels above the reference range, leading to diagnoses of hypothyroidism, hyperlipidemia, borderline diabetes, and anemia. Although pharmacotherapy was recommended, the patient declined because of a history of pyelonephritis and concern that drug-related adverse effects could negatively affect renal function.

History taking revealed irregular meal patterns and excessive caffeine intake. The patient also reported experiencing excessive stress. Accordingly, based on the test results and the patient's account, the following were set as the goals of this OCNT.

1. Supply of nutrients to support thyroid function
2. Supply of nutrients to improve metabolic symptoms such as hyperlipidemia and to maintain systemic homeostasis
3. Supply of nutrients to enhance bodily water and nutrient absorption

Adequate provision of diverse trace elements is essential for the normal operation of the thyroid and the TH system. Among these, iodine, selenium, and iron are most critical for thyroid function. Iodine is an indispensable constituent of T3 and T4, and selenium and iron support the conversion of T4 to T3. When their serum levels are low, thyroid function is impaired and diverse symptoms occur. Populations living in regions with

iodine deficiency show a significantly higher incidence of congenital hypothyroidism (cretinism). Large cohort studies on selenium show that appropriate intake is associated with a reduced risk of hypothyroidism and with changes in TSH and T4. Iron deficiency, which is commonly linked to anemia, can inhibit the synthesis of thyroid peroxidase (TPO), an enzyme required for TH biosynthesis, and ultimately lead to hypothyroidism. Accordingly, Thyroplex, Selenplex, and Hemoplex were used to provide these three trace elements in appropriate amounts.[5]

Beyond these three trace elements, additional elements can contribute to the regulation of thyroid function, most notably copper, zinc, and manganese. Copper participates in cellular redox reactions and plays an important role in TH activation and signal-transduction pathways. Zinc is an essential trace element for immune and reproductive function, is directly linked to thyroid function, and has been reported to be associated with hypothyroidism when intake is insufficient. Finally, when maintained at appropriate concentrations, manganese supports TH metabolism by modulating deiodinase activity and thereby benefits thyroid function. These elements were supplied via Tmplex.[6]

The patient was diagnosed with hypothyroidism, hyperlipidemia, and prediabetes and complained of various symptoms, including chronic fatigue, digestive symptoms such as gastritis and enteritis, and skin diseases such as pruritus. These findings were considered to reflect impaired systemic homeostasis and an exaggerated inflammatory response attributable to hypothyroidism. Accordingly, OCNT was prescribed to address the symptoms and improve energy homeostasis.

To help control the patient's cholesterol levels, Monacol and Eufaplex were prescribed. Eufaplex contains abundant polyunsaturated fatty acids (PUFAs), including omega-3 and omega-6. Randomized controlled trials have shown that appropriate omega-3 intake significantly lowers triglyceride (TG) concentrations in the blood.[7] In addition, omega-6 fatty acids, known as linoleic acid, significantly reduce LDL cholesterol when consumed.[8] Monacol contains monacolin compounds extracted from red yeast rice, and monacolin K, one of its subtypes, is known to be structurally identical to lovastatin, a lipid-lowering drug. Multiple randomized controlled trials with this compound have demonstrated significant reductions in total cholesterol and LDL cholesterol.[9] Therefore, these constituents are considered to have contributed meaningfully to the patient's cholesterol control.

OCNT was subsequently prescribed to improve systemic energy homeostasis, build antioxidant capacity, and strengthen anti-inflammatory function. This plan incorporated anthocyanins, a class of polyphenols abundant in blue and purple plants. Anthocyanins promote the activation of AMPK and the PI3K/AKT pathway, regulate the expression of inflammatory mediators including NF-κB, IL-1β, and IL-6, and activate Nrf2, thereby enhancing antioxidant function.[10] In addition, milk thistle was used to improve fatigue. Milk thistle contains silymarin, and follow-up studies have reported significant improvements in fatigue symptoms with this compound.[11] These constituents were supplied through Cyaplex X and Viva kan.

In patients with hypothyroidism, adequate fluid intake is necessary. However, simply drinking more water does not ensure sustained hydration. Accordingly, appropriate electrolyte intake is important. Sodium plays the primary role, and potassium and calcium also contribute.[12] Therefore, Aqua SAC pure and Cyaplex mineral bamboo salt were prescribed to supplement these components.

Through the above OCNT, the various symptoms that had arisen due to hypothyroidism were observed to improve. In particular, TSH, total cholesterol, and LDL-cholesterol, which had been above the normal range, returned to the normal range, which is noteworthy. In addition, when symptoms recurred, OCNT tailored to the patient's condition at that time was prescribed and likewise led to symptom improvement, which is meaningful. Nevertheless, because this report concerns a single patient, applying the same OCNT to all individuals with hypothyroidism has limitations. Even so, appropriately selected OCNT that takes the patient's physical status into account can induce improvement in symptoms related to hypothyroidism, and this case is reported with the patient's consent.

References

1. Pirahanchi Y, Tariq MA, Jialal I. Physiology, thyroid. StatPearls [Internet]. 2023.
2. Mullur R, Liu Y-Y, Brent GA. Thyroid hormone regulation of metabolism. Physiological reviews. 2014;94(2):355-82.
3. Lee SY, Pearce EN. Hyperthyroidism: A Review. Jama. 2023;330(15):1472-83.
4. Chaker L, Razvi S, Bensenor IM, Azizi F, Pearce EN, Peeters RP. Hypothyroidism. Nat Rev Dis Primers. 2022;8(1):30.
5. Köhrle J. Selenium, Iodine and Iron-Essential Trace Elements for Thyroid Hormone Synthesis and Metabolism. Int J Mol Sci. 2023;24(4).
6. Zhou Q, Xue S, Zhang L, Chen G. Trace elements and the thyroid. Front Endocrinol (Lausanne). 2022;13:904889.
7. Zhang C, Xie Y, Zhou J, Xiang Q, Zhong Y, Xiao J, et al. Effects of Omega-3 Fatty Acids Intake on Lipid Metabolism and Plaque Volume in Patients With Coronary Heart Disease: A Systematic Review and Dose-Response Meta-Analysis of Randomized Clinical Trials. Food Sci Nutr. 2025;13(6):e70372.
8. Wang Q, Zhang H, Jin Q, Wang X. Effects of Dietary Linoleic Acid on Blood Lipid Profiles: A Systematic Review and Meta-Analysis of 40 Randomized Controlled Trials. Foods. 2023;12(11).
9. Li P, Wang Q, Chen K, Zou S, Shu S, Lu C, et al. Red Yeast Rice for Hyperlipidemia: A Meta-Analysis of 15 High-Quality Randomized Controlled Trials. Front Pharmacol. 2021;12:819482.
10. Chen K, Kortesniemi MK, Linderborg KM, Yang B. Anthocyanins as Promising Molecules Affecting Energy Homeostasis, Inflammation, and Gut Microbiota in Type 2 Diabetes with Special Reference to Impact of Acylation. J Agric Food Chem. 2023;71(2):1002-17.

11. Gillessen A, Schmidt HH. Silymarin as Supportive Treatment in Liver Diseases: A Narrative Review. Adv Ther. 2020;37(4):1279-301.

12. Kiela PR, Ghishan FK. Physiology of Intestinal Absorption and Secretion. Best Pract Res Clin Gastroenterol. 2016;30(2):145-59.