

세포교정영양요법(OCNT)을 이용한 기생충 감염증 개선 사례

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Improvement of Parasitic Disease Through Ortho-Cellular Nutrition Therapy (OCNT)

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ABSTRACT

Objective: Parasitism is a symbiotic relationship in which a parasite exploits its host as both a habitat and nutrient source, causing unilateral harm. According to the World Health Organization (WHO), approximately one billion people worldwide are infected with parasites. In South Korea, egg-positive rates have declined markedly through large-scale deworming programs, yet various parasitic infections continue to be reported. The mainstay of treatment is the administration of drugs such as albendazole, mebendazole, and ivermectin. However, limitations include insufficient efficacy against certain parasites, a limited number of available drugs, and delays in the development of novel therapeutic agents. Accordingly, research into alternative therapeutic approaches utilizing antiparasitic medicinal plants has recently attracted increasing attention.

Case Report: This case report describes a Korean male patient in his sixties who presented with generalized pruritus, neck discomfort, hyperkeratosis of the hands, and facial muscle tremors, and in whom parasitic infection was suspected. To alleviate his symptoms, Ortho-Cellular Nutrition Therapy (OCNT) using fennel, *Artemisia annua*, clove, *Torreya nucifera*, buckwheat, pomegranate, aronia, walnut, and bamboo salt was administered. Following the intervention, the disappearance of facial muscle tremors and neck discomfort was confirmed, along with the alleviation of generalized pruritus and hyperkeratosis of the hands.

Conclusion: As this case is based on a single patient, generalizing the findings to patients with similar symptoms has inherent limitations. Nevertheless, this case is considered meaningful in that a simple OCNT intervention could contribute to improvements in the patient's symptoms and quality of life.

Keywords Ortho-Cellular Nutrition Therapy (OCNT), Parasite, Parasitic infection, Medicinal plant

Introduction

Organisms belonging to two different species can exist in a physiological or ecological relationship with one another. This relationship is referred to as symbiosis and can be classified into mutualism, commensalism, and parasitism according to the costs and benefits to the two species. Among these, parasitism refers to a relationship in which one organism benefits while the other is harmed. In this relationship, the organism that benefits is referred to as a parasitic organism, or parasite, whereas the organism that is harmed is referred to as a host. Parasitic

infection may be defined as a condition in which a parasite uses a host as both a habitat and a source of nutrients, potentially causing biological damage or imposing a biological cost on the host.¹

Depending on the species, parasitic infections may be acquired from various sources, including feces, soil, contaminated water, and other organisms. According to the World Health Organization (WHO), more than one billion people worldwide were infected with parasites as of 2020. South Korea was predominantly an agrarian society until the 1970s, and the intestinal helminth egg-positivity rate was as high as 84.3% in 1971. However, following large-scale deworming programs, this rate was reported to have declined to 2.6% by 2012. Nevertheless, infections caused by various parasites continue to occur today, including soil-transmitted helminths such as *Ascaris lumbricoides*, *Trichuris trichiura*, and *Ancylostoma duodenale*; trematodes such as *Clonorchis sinensis* and *Paragonimus westermani*; and cestodes such as *Taenia asiatica*.^{2,3}

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In modern medicine, the administration of pharmacological agents is used as a fundamental approach to parasite control and treatment. Representative drugs include albendazole, mebendazole, ivermectin, and levamisole, and the frequency of administration may be adjusted according to the type of parasite and the severity of infection, with combination therapy using different drugs also being possible. However, the number of currently available drugs is limited, and their efficacy may be insufficient against certain parasites. In addition, from a long-term perspective, concerns regarding the development of resistance to anthelmintic agents and the slow pace of new drug development have emerged as limitations. Accordingly, research on parasite control utilizing the antiparasitic activity of medicinal plants has been actively conducted in recent years.^{4,5}

This case report describes a Korean patient in his sixties who presented with generalized pruritus, neck discomfort, hyperkeratosis of the hands, and facial muscle tremors. A review of the patient's medical and social history revealed multiple findings suggestive of parasitic infection, and Ortho-Cellular Nutrition Therapy (OCNT) was subsequently administered in an attempt to alleviate his symptoms. Following the intervention, overall improvement in the symptoms reported by the patient and an improvement in his quality of life were confirmed. This case is reported with the patient's informed consent.

Case Study

1. Subject

One case of a patient with suspected parasitic infection was included.

- 1) Name: Cho O.O. (65 years old / M)
- 2) Diagnosis: Suspected systemic parasitic infection
- 3) Date of onset: Unknown
- 4) Treatment period: October 2025 – April 2025
- 5) Chief complaints: Facial muscle tremors, dull pain in the neck and occipital region, generalized pruritus, hyperkeratosis and erythema of the hands
- 6) Past medical history: Cervical disc surgery in 2025
- 7) Social history: Resided in a rural area during childhood with exposure to soil and livestock feces, with a history of frequent consumption of unfiltered fresh water
- 8) Family history: None
- 9) Current illness and medications: Isotril ER tablet 60 mg (angina pectoris, ischemic heart disease), Molsiton tablet 4 mg (angina pectoris), Twynsta tablet 40/5 mg (hypertension), and Rosuzet tablet 10/5 mg (dyslipidemia), all taken for multiple years

2. Methods

During the OCNT intervention period, the following regimen was prescribed.

- Paragon (101, twice daily, 1 packet per dose)

Results

Following approximately six months of OCNT, the patient reported that the facial muscle tremors and dull pain in the neck and occipital region, which had been his primary complaints, had resolved and that the associated discomfort had markedly improved. He also reported substantial improvement in the severe generalized pruritus, which, by the end of OCNT,

occurred only occasionally and mildly in the lower extremities. In addition, marked improvement in scaling and erythema of both hands was observed, although the patient had previously reported that these symptoms had not improved despite dermatological consultation and treatment.

Discussion

The patient in this case report was a Korean male in his sixties who presented to a pharmacy with various discomforting symptoms affecting multiple parts of his body. His primary complaints included facial muscle tremors, dull pain in the neck and occipital region, generalized pruritus, and scaling and erythema of the hands. He stated that the scaling of his hands had not improved despite several dermatological consultations and treatments. A review of the patient's medical and personal history revealed that he had lived in a rural area during childhood and had engaged in agricultural and livestock farming without protective equipment. He also stated that he had consumed water drawn from a nearby freshwater source without taking separate purification measures, such as boiling the water.

Based on the patient's past medical and social history, it was considered likely that he had acquired a parasitic infection during childhood, and abnormal immune or inflammatory responses associated with parasitic infection were suspected to have occurred. These responses were presumed to have given rise to the various symptoms causing discomfort to the patient. Indeed, extensive research has been conducted on the mechanisms by which parasitic infection modulates immune cell activity, and the mechanisms underlying associated allergic and inflammatory responses are being progressively elucidated. Furthermore, age-related changes in the immune system may affect the regulation of immune responses to parasitic infection, potentially increasing susceptibility to symptoms attributable to prior parasitic infection.^{6,7} Accordingly, OCNT was prescribed with the aim of controlling parasites and modulating immune and inflammatory responses.

Paragon, which was prescribed to the patient, is formulated with various plants and ingredients, including fennel, *Artemisia annua*, clove, *Torreya nucifera*, buckwheat, pomegranate, aronia, walnut, and bamboo salt. Among these, *Artemisia annua*, clove, and *Torreya nucifera* are known to aid in parasite control. *Artemisia annua* contains an active compound called artemisinin, which is primarily known for its use as an antimalarial agent. However, artemisinin may positively contribute to anthelmintic activity by reacting with heme iron and releasing free radicals within parasite cells, thereby causing cellular damage to the parasites.⁸

Clove contains a natural compound known as eugenol, which is known to aid in anthelmintic activity. In one study investigating the antiparasitic activity of essential oil extracted from clove against *Giardia lamblia*, a parasite that causes diarrhea, the oil was found to inhibit parasite growth and proliferation, reduce its ability to adhere to intestinal epithelial cells, and affect parasite viability.⁹ *Torreya nucifera* contains compounds known as galangal acetate and miogadial, which have been shown to exhibit anthelmintic activity by inhibiting parasite motility.¹⁰

Buckwheat, aronia, and bamboo salt are known to aid in the regulation of immune responses in the body. These ingredients contain active constituents that may positively influence immune

responses, namely buckwheat polysaccharides, anthocyanins and cyanidin from aronia, and a natural sulfur and mineral complex from bamboo salt, respectively. Buckwheat polysaccharides activate the immune activity of certain immune cells, including macrophages and natural killer (NK) cells, while anthocyanins and cyanidin help support immune cell function through mechanisms that alleviate oxidative stress. Bamboo salt has also been shown to suppress the secretion of inflammatory cytokines and contribute to reductions in the expression of related mRNAs.¹¹⁻¹³

Finally, fennel, pomegranate, and walnut contain constituents that contribute to the modulation of inflammatory responses in the body. Pomegranate is rich in ellagic acid, gallic acid, and punicalagin, while walnut hull contains a phenolic compound known as juglone. These constituents may aid in the regulation of inflammatory responses by inhibiting macrophage-associated inflammatory mediators, including nitric oxide (NO), prostaglandin E2 (PGE-2), and interleukin-6 (IL-6). Fennel contains a variety of bioactive flavonoids, flavonols, and phenolic compounds. These constituents may contribute to reducing tissue damage associated with inflammatory responses through the inhibition of protein denaturation, stabilization of cell membranes, and suppression of proteolytic enzyme activity.¹⁴⁻¹⁶

Through the OCNT described above, the patient reported significant improvement in his presenting symptoms and improved quality of life. However, as this case report is based on a single patient, there are limitations in applying the same OCNT to all patients with the same symptoms and suspected sources of infection. Nevertheless, this case was considered meaningful in that the application of a simple OCNT intervention may contribute to clinical improvement, and is reported with the patient's informed consent.

References

- Rózsa L, Garay J. Definitions of parasitism, considering its potentially opposing effects at different levels of hierarchical organization. *Parasitology*. 2023;150(9):761-8.
- Montresor A, Mupfasoni D, Mikhailov A, Mwinzi P, Lucianez A, Jamsheed M, et al. The global progress of soil-transmitted helminthiasis control in 2020 and World Health Organization targets for 2030. *PLoS Negl Trop Dis*. 2020;14(8):e0008505.
- Hong ST, Yong TS. Review of Successful Control of Parasitic Infections in Korea. *Infect Chemother*. 2020;52(3):427-40.
- Keiser J, Utzinger J. The drugs we have and the drugs we need against major helminth infections. *Adv Parasitol*. 2010;73:197-230.
- Ranasinghe S, Aspinall S, Beynon A, Ash A, Lymbery A. Traditional medicinal plants in the treatment of gastrointestinal parasites in humans: A systematic review and meta-analysis of clinical and experimental evidence. *Phytother Res*. 2023;37(9):3675-87.
- McSorley HJ, Maizels RM. Helminth infections and host immune regulation. *Clin Microbiol Rev*. 2012;25(4):585-608.
- Humphreys NE, Grenis RK. Effects of ageing on the immunoregulation of parasitic infection. *Infect Immun*. 2002;70(9):5148-57.
- Ferreira JF, Peaden P, Keiser J. In vitro trematocidal effects of crude alcoholic extracts of *Artemisia annua*, *A. absinthium*, *Asimina triloba*, and *Fumaria officinalis*: trematocidal plant alcoholic extracts. *Parasitol Res*. 2011;109(6):1585-92.
- Machado M, Dinis AM, Salgueiro L, Custódio JB, Cavaleiro C, Sousa MC. Anti-Giardia activity of *Syzygium aromaticum* essential oil and eugenol: effects on growth, viability, adherence and ultrastructure. *Exp Parasitol*. 2011;127(4):732-9.
- Liu M, Veryser C, Lu JG, Wenseleers T, De Borggraeve WM, Jiang ZH, et al. Bioassay-guided isolation of active substances from *Semen Torreyae* identifies two new anthelmintic compounds with novel mechanism of action. *J Ethnopharmacol*. 2018;224:421-8.
- Oh MJ, Choi HD, Ha SK, Choi I, Park HY. Immunomodulatory effects of polysaccharide fraction isolated from *Fagopyrum esculentum* on innate immune system. *Biochem Biophys Res Commun*. 2018;496(4):1210-6.
- Bushmeleva K, Vyshtakalyuk A, Terenzhev D, Belov T, Nikitin E, Zobov V. Antioxidative and Immunomodulating Properties of *Aronia melanocarpa* Extract Rich in Anthocyanins. *Plants (Basel)*. 2022;11(23).
- Shin HY, Lee EH, Kim CY, Shin TY, Kim SD, Song YS, et al. Anti-inflammatory activity of Korean folk medicine purple bamboo salt. *Immunopharmacol Immunotoxicol*. 2003;25(3):377-84.
- BenSaad LA, Kim KH, Quah CC, Kim WR, Shahimi M. Anti-inflammatory potential of ellagic acid, gallic acid and punicalagin A&B isolated from *Punica granatum*. *BMC Complement Altern Med*. 2017;17(1):47.
- He Y, Zhao W, Sun Y, Ma L, Li C, Zheng X, et al. Elucidation of the Hemostatic and Anti-Inflammatory Effects of Walnut Shell Ethanol Extract by Network Pharmacology and Experimental Verification. *Food Sci Nutr*. 2025;13(8):e70726.
- Cherbal A, Bouabdallah M, Benhalla M, Hireche S, Desdous R. Phytochemical Screening, Phenolic Content, and Anti-Inflammatory Effect of *Foeniculum vulgare* Seed Extract. *Prev Nutr Food Sci*. 2023;28(2):141-8.