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Case Report

세포교정영양요법(OCNT)을 이용한 인유두종 바이러스, 질염, 자궁경부 이형성증 개선 사례 보고

서연희 약사
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A Case Report on the Improvement of Human Papillomavirus, Vaginitis, and Cervical Dysplasia Using Ortho-Cellular Nutrition Therapy (OCNT)

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ABSTRACT

Objective: Vaginitis refers to an inflammatory condition of the vagina, one of the female reproductive organs, characterized by abnormal discharge, foul odor, irritation, itching, and burning sensations. It is primarily classified into bacterial vaginosis, vulvovaginal candidiasis, and trichomoniasis. Diagnosis is made based on the patient's symptoms, clinical examination findings, and results from hospital and laboratory tests.

Case Report: The patient in this case study was a woman in her 40s who had experienced recurrent vaginitis and human papillomavirus (HPV) infection-related genital diseases, as well as cystitis, for the past five years. She also reported abnormalities in the gastrointestinal tract, colon, breast, and uterus, along with osteoporosis. Accordingly, Ortho-Cellular Nutrition Therapy (OCNT), including anthocyanins, selenium, iodine, *Punica granatum*, *Angelica sinensis*, probiotics, omega-3 fatty acids, vitamin K, and collagen, was administered over five sessions. Following treatment, the patient's major gynecological symptoms showed significant improvement, and her overall health condition was also confirmed to have improved.

Conclusion: In this case study, OCNT appeared to have a positive effect on improving symptoms of vaginitis, HPV infection, cystitis, osteoporosis, and Sjögren's syndrome. However, since this treatment was personalized and applied to a single patient, its generalizability to other patients with vaginitis is limited. Nevertheless, given the meaningful improvements in overall immune function and health status, as well as the contribution to enhancing the patient's quality of life, this case study is reported accordingly.

Keywords Ortho-Cellular Nutrition Therapy (OCNT), vaginitis, antibiotics, anthocyanins, selenium

Introduction

Vaginitis refers to an inflammatory condition of the vagina, a female reproductive organ, characterized by abnormal discharge, unpleasant odor, irritation, itching, and burning sensations. The main types of vaginitis are classified into three categories: bacterial vaginosis, vulvovaginal candidiasis, and trichomoniasis. Among these, bacterial vaginosis accounts for approximately 40-50% of all vaginitis cases, vulvovaginal candidiasis comprises 20-25%, and trichomoniasis represents 15-20%. Additionally, there is non-infectious vaginitis, which is relatively rare, constituting about 5-10% of total vaginitis cases.[1]

Diagnosis of vaginitis is based on a comprehensive assessment of the patient's symptoms, physical examination findings, hospital tests, and laboratory results. In cases of bacterial vaginosis, bacteria are collected from the patient's vaginal discharge, and diagnosis is generally made through Gram staining. Recently, advanced diagnostic methods have been introduced to improve sensitivity and specificity, such as the detection of *Gardnerella vaginalis* DNA or the measurement of sialidase activity in vaginal secretions. Vulvovaginal candidiasis is diagnosed by microscopic examination using potassium hydroxide (KOH). When a

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Candida species other than *Candida albicans* is suspected, additional confirmation through culture testing is required.[2]

Treatment of vaginitis varies depending on the causative pathogen. Treating bacterial vaginosis helps reduce the risk of infections such as chlamydia, gonorrhea, human immunodeficiency virus (HIV), and herpes simplex virus type 2 (HSV-2), and is therefore recommended from a preventive standpoint. Generally, treatment involves prescribing oral or intravaginal metronidazole or using intravaginal clindamycin. Although bacterial vaginosis treatment during pregnancy was once believed to help prevent preterm birth, multiple studies have concluded that antibiotic treatment is not effective in preventing preterm labor.[3]

In cases of vulvovaginal candidiasis, treatment is primarily aimed at symptom relief. Generally, topical azole agents or oral fluconazole are prescribed, with both treatments showing similar success rates of approximately 80%.[4] Finally, trichomoniasis is treated with oral metronidazole or tinidazole. In particular, treatment of trichomoniasis in HIV-infected individuals has been reported to reduce the risk of HIV transmission to sexual partners. Additionally, trichomoniasis during pregnancy has been associated with low birth weight and preterm birth; therefore, pregnant women should undergo mandatory testing for vaginitis and receive appropriate treatment if necessary.[5]

This case study involved a female patient in her 40s who had been experiencing symptoms of vaginitis and human papillomavirus (HPV) infection for the past five years. The patient had cervical dysplasia caused by HPV infection, which resulted in vaginitis. She also reported persistent discomfort from reproductive tract-related conditions, including frequent cystitis. Additionally, chronic inflammatory reactions of the scalp and skin, *Helicobacter pylori* infection in the stomach, colon polyps, and breast lumps and nodules were identified. Accordingly, it was determined that overall immune function and homeostasis required improvement, and Ortho-Cellular Nutrition Therapy (OCNT) was applied. After symptom improvement, the patient's consent was obtained to report this case.

Case Study

1. Subject

This case study involved a patient with vaginitis.

1) Name: Seo OO (49 years old, F)
2) Diagnosis: Vaginitis
3) Date of onset: January 2020
4) Treatment period: October 28, 2024 – Present
5) Chief complaints: *Candida* vaginitis, HPV infection, cervical dysplasia, cystitis
6) Medical history: Early-stage Sjögren's disease, colon polyps, breast lump, breast nodules, *Helicobacter pylori* infection, osteoporosis, melasma, blemishes, skin inflammation
7) Social history: Failed in vitro fertilization attempts
8) Family history: None
9) Current illness and medications: Frequent use of antifungals and antibiotics

2. Methods

Details of the OCNT applied to the patient are provided in Table 1. Additionally, from the third prescription onward, topical agents—Botanical Feminine Wash and Cyaflex Balm—were prescribed concurrently.

Results

The patient had been experiencing HPV infection of the cervix and *Candida* vaginitis for the past five years, with frequent recurrent cystitis. Following the first OCNT prescription, the patient became aware through POT inflammation testing that systemic inflammation levels were high. Health screening revealed abnormal findings in the stomach, colon, breast, and uterus, in that order. Notably, *Helicobacter pylori* infection was detected in the stomach, and

Table 1. OCNT Applied to the Patient

Session (Prescription date) / Products	1st (Oct 28, 2024)	2nd (Nov 29, 2024)	3rd (Jan 3, 2025)	4th (Feb 19, 2025)	5th (Apr 17, 2025)	Remarks
Cyaplex A Capsule	202	202	-	-	-	-
Cyaplex F Capsule	-	-	303	303	-	-
Eufaplex Alpha Capsule	303	303	303	303	-	-
Selenplex Capsule	101	101	101	100	100	-
Thyroplex F Capsule	101	101	101	100	100	-
Vivagin X Capsule	101	101	101	100	100	-
Apple Vinegar Powder	Ten sachets prescribed	-	Ten sachets prescribed	-	-	-
Paragon	Ten sachets prescribed	-	Ten sachets prescribed	-	-	-
Angelan F Granules	-	-	101	101	-	-
Epibiome F Granules	-	-	101	101	-	-
Collaplex Granules	-	-	-	100	100	-
Vivaquinone Capsule	-	-	-	101	101	-
Aqua SAC Pure	-	-	-	-	100	-
Heartberry Black	-	-	-	-	100	-
Cyaplex Mineral Rock Salt	-	-	-	-	100	-

* 100: One sachet or capsule once daily in the morning; 101: One sachet or capsule twice daily, morning and evening; 202: Two sachets or capsules twice daily, morning and evening; 303: Three sachets or capsules twice daily, morning and evening

eradication therapy was administered. Subsequently, the patient reported gastrointestinal symptoms such as bloating, abdominal pain, indigestion, and irregular bowel movements. Accordingly, OCNT tailored to the patient's symptoms was conducted for one month. After the second OCNT treatment, the patient reported greater improvement in various systemic inflammatory responses, including scalp and skin inflammation, compared to previous herbal medicine or dietary supplement use. Notably, recurrent stomatitis ceased, and symptoms of Sjögren's disease, such as dry mouth and dry eyes, were alleviated. Additionally, the patient experienced reduced persistent fatigue and was frequently told by others that her complexion had improved. Symptoms of chest tightness and indigestion, which had been constant, also improved following OCNT, resulting in an overall increase in vitality.

After the third OCNT treatment, the patient reported that getting up in the morning had become easier and that the frequently recurring cystitis had been prevented. However, intermittent itching and burning sensations in the lower genital area, along with continued vaginal discharge, persisted due to vaginitis and HPV infection. The patient had experienced these symptoms for several years and reported visiting the gynecology clinic approximately once a week over the past five years. Therefore, additional nutrients and topical agents were prescribed to address the vaginitis symptoms. Following the fourth OCNT treatment, the patient's vaginitis symptoms significantly improved, and during a gynecological examination, the attending physician confirmed that the cervix, previously infected with HPV, showed normal findings.

The patient had a prior diagnosis of osteoporosis, which resulted in a microfracture of a toe. Therefore, Collaplex and Vivaquinone were additionally prescribed to promote bone health and tissue repair. After two months, the patient reported improvement in the toe microfracture and an overall alleviation of symptoms related to immune deficiency, which were attributed to various underlying conditions. Additionally, although the patient had a constitution characterized by poor sweating, following OCNT treatment, sweating and body hydration increased, leading to noticeable improvements in skin condition.

Discussion

The patient in this case study was a woman in her 40s who had experienced HPV infection, cervical dysplasia, and *Candida* vaginitis for approximately five years, accompanied by persistent pruritus and burning sensations in the vulvar region. In the gastrointestinal tract, Helicobacter pylori infection was identified, and eradication therapy was administered; however, digestive symptoms such as indigestion continued thereafter. In consideration of the patient's overall health status, impaired immune function, and chronic inflammatory condition, a personalized nutrient regimen was implemented to improve systemic health.

The patient presented with multiple reproductive tract conditions, including *Candida* vaginitis, HPV infection, and cystitis. To support the overall health of the reproductive system, nutrients beneficial for improving vaginal health were prescribed. Vaginitis disrupts the microbial balance by reducing normal vaginal flora and allowing anaerobic bacteria to dominate. In particular, a decline in *Lactobacillus*, a key commensal species, leads to decreased hydrogen peroxide production. This results in an elevated vaginal pH and a weakened natural defense system. The resulting environment creates a vicious cycle of diminished vaginal immunity and increased proliferation of anaerobic bacteria. Anthocyanins, through their antioxidant properties, inhibit the production of reactive oxygen species and suppress the generation of inflammatory cytokines, thereby fostering an environment conducive to the survival and proliferation of *Lactobacillus*. As a result, lactic acid production increases, vaginal pH decreases, and the overgrowth of anaerobic bacteria is suppressed, ultimately contributing to improved vaginal health.[6] Accordingly, the patient was prescribed Cyaplex A Capsules, Cyaplex F Capsules, and Heartberry Black, all rich in anthocyanins, to enhance immunity in the vagina and reproductive organs and alleviate inflammatory responses.

In addition, the treatment aimed to improve overall vaginal health and immunity while suppressing the growth of *Candida* species, a major cause of vaginitis. According to one study, when *Candida albicans* was introduced into selenium-deficient experimental animals, the infection progressed approximately 4–5 days faster than in the control group, demonstrating that selenium deficiency is associated with impaired neutrophil function.[7] Conversely, selenium supplementation has been shown to inhibit the growth of *Candida* species. In a cell-based study, *Candida* strains cultured in selenium-containing media exhibited significantly reduced proliferation compared to the control group, and increased oxidative stress was observed in their metabolic processes.[8] Accordingly, Selenplex Capsules and Vivagin X Capsules were prescribed to supplement selenium and to achieve fundamental improvement of vaginitis by inhibiting *Candida* growth.

Another nutrient that helps improve *Candida* vaginitis is iodine. Iodine is a trace mineral essential for the human body, primarily involved in thyroid hormone synthesis, but it has also been reported to have positive effects on female reproductive health and vaginitis improvement. In particular, research on povidone-iodine related to vaginitis is actively conducted. In one study, women suffering from trichomoniasis and *Candida* vaginitis were treated with povidone-iodine vaginal suppositories for two weeks. As a result, approximately 92% of trichomoniasis patients and 96% of *Candida* vaginitis patients were completely cured.[9] This appears to result from iodine's antimicrobial and germicidal effects, which directly inhibit the pathogenic microorganisms causing vaginitis.[10] Therefore, Thyroplex F Capsules containing iodine were prescribed to alleviate inflammation of the patient's reproductive tract and to inhibit the growth of pathogens causing vaginitis.

The patient experienced frequent recurrent cystitis due to weakened immunity and was diagnosed with HPV infection in the cervix, along with various gynecological conditions. Accordingly, nutrients that could support female reproductive health were prescribed to alleviate the patient's symptoms. *Punica granatum*, a plant commonly found in temperate regions, contains compounds such as punicic acid in its peel that are reported to have estrogen-like effects. Additionally, *Punica granatum* exhibits antioxidant and anti-inflammatory properties, and some studies have demonstrated its positive impact on breast cancer prevention and female reproductive health.[11] Therefore, Paragon, which contains *Punica granatum* extract, was prescribed with the goal of improving the patient's reproductive system function and reducing inflammation.

Another nutrient beneficial for the female reproductive system is *Angelica sinensis*. *Angelica sinensis* is a traditional medicinal herb used in Eastern medicine to treat various gynecological conditions such as menstrual irregularities,

dysmenorrhea, and menopausal symptoms. Additionally, modern pharmacological studies have shown that *Angelica sinensis* contains multiple bioactive compounds, which have been demonstrated to exert hematopoietic, immunomodulatory, antitumor, and antioxidant effects.[12] Therefore, Angelan F Granules, which are rich in *Angelica sinensis*, were prescribed to positively influence the patient's gynecological conditions and overall health status.

Epibiome F Granules contain probiotics, which are defined as live microorganisms that confer health benefits to the host. Since the 21st century, various studies have shown that the microbiota residing in the gut and urogenital tract play a central role in maintaining human health. In particular, the microbial communities in the intestines, vagina, and urethra are reported to be important for preserving female health and preventing gynecological infections. A meta-analysis conducted on non-pregnant women indicated that probiotic use reduces the recurrence rate of vaginitis and promotes the restoration of normal vaginal flora in patients with bacterial vaginosis.[13] Therefore, probiotics were prescribed to the patient suffering from gynecological infections and indigestion caused by *Helicobacter pylori* to promote the growth of beneficial bacteria in the gut and vagina and to improve the overall condition.

Meanwhile, the patient also had osteoporosis and recently experienced a microfracture in a toe. Therefore, additional nutrients beneficial for improving bone and tissue health were prescribed. First, Eufaplex Alpha Capsules contain omega-3 fatty acids. Omega-3, a major active component of fish oil, contributes to bone health by inhibiting bone loss and promoting mineralization, in addition to its preventive effects on cardiovascular and neurodegenerative diseases.[14] Vivaquinone Capsules, containing a high concentration of vitamin K, were prescribed concurrently to improve osteoporosis. Vitamin K is known to contribute to bone formation by promoting osteoblast differentiation and activating proteins that induce mineralization within the bone matrix.[15] Finally, the collagen contained in Collaplex Granules is an organic component that affects bone stiffness. Bone strength is determined by both quantitative and qualitative factors of bone tissue, of which approximately 90% consists of type 1 collagen, forming the bone matrix. Mineral deposition on this matrix maintains the stiffness and durability of bone.[16] Therefore, omega-3, vitamin K, and collagen were prescribed to maintain bone health and promote tissue recovery.

The patient in this case study experienced improvement in vaginitis and cystitis through five rounds of OCNT, and a gynecological examination confirmed that the cervix previously infected with HPV showed normal findings. Additionally, gastrointestinal symptoms and the toe microfracture caused by preexisting osteoporosis also improved. However, since this case study involved only a single patient, its generalizability to all patients with gynecological conditions is limited. Nevertheless, the patient's long-standing symptoms showed significant improvement, and overall immune function was enhanced, contributing to an improved quality of life. Accordingly, this case study is reported with the patient's consent.

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