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Case Report

세포교정영양요법(OCNT)을 이용한 방광염 개선 사례 보고

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A Case Report on the Improvement of Cystitis Through Ortho-Cellular Nutrition Therapy (OCNT)

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ABSTRACT

Objective: Cystitis is the most common form of bacterial urinary tract infection (UTI) in women, and approximately one in two women experience at least one episode of cystitis during their lifetime. Acute cystitis predominantly arises from ascending infection of the urinary tract. Anatomically, women are more susceptible due to a shorter urethra, facilitating the entry of uropathogenic bacteria into the bladder. In addition, the development and recurrence of cystitis are closely associated with host immune status.

Case Report: The patient was a Korean woman in her 70s who presented with chronic, recurrent cystitis accompanied by persistent lower urinary tract discomfort. The patient also had multiple comorbid conditions, including gastritis, bronchitis, and constipation. To enhance fundamental immune function, Ortho-Cellular Nutrition Therapy (OCNT), utilizing anthocyanins, fructooligosaccharides, and omega fatty acids, was applied. Following OCNT, the patient reported improvement in nocturia, dysuria, and other cystitis-related symptoms, as well as an overall reduction of symptoms related to her pre-existing comorbid conditions.

Conclusion: Although this case report is limited to a single individual and cannot be generalized to all patients with cystitis, the marked improvement in overall health during a short intervention period suggests clinically meaningful potential.

Keywords Ortho-Cellular Nutrition Therapy (OCNT), cystitis, urinary tract infection, anthocyanin, fructooligosaccharides

Introduction

Cystitis is the most common bacterial urinary tract infection (UTI) among women and refers to an inflammatory condition confined to the bladder caused by bacterial invasion of the urinary tract, which consists of the kidneys, ureters, bladder, and urethra. Approximately one in two women experience at least one episode of cystitis during their lifetime, and frequent episodes within a short period may progress to recurrent cystitis. In fact, recurrence has been reported in nearly one-third of women with a history of cystitis. Common symptoms of acute cystitis include dysuria, urinary frequency, urgency, nocturia, voiding difficulty, urinary incontinence, and foul-smelling or turbid urine, sometimes accompanied by hematuria. In addition, patients may present with lower back pain or suprapubic discomfort. Clinically, cystitis is classified as acute or chronic.[1]

The primary infectious pathway of acute cystitis is ascending urinary tract infection originating in the urethra. UTI refers to the presence of microbial pathogens within the urinary tract, and it occurs far more frequently in women, accounting for approximately 95% of all cases. This is largely because males possess a longer urethra, which makes it difficult for external microorganisms to reach the bladder, and the prostate gland serves as an additional protective barrier against microbial invasion. In contrast, the female urethra is approximately 4 cm in length, providing a shorter route for bacterial entry into the bladder, and the close anatomical proximity between the urethral opening, vagina, and anus increases the likelihood of colonization by enteric microorganisms. Furthermore, factors such as sexual activity, pregnancy, and immunosuppression facilitate ascending bacterial migration, thereby significantly increasing the risk of developing cystitis.[2]

More than 80% of cystitis cases are caused by *Escherichia coli*, followed by *Staphylococcus spp*, *Klebsiella spp*, *Enterococcus spp*, and *Proteus* species, which are also recognized as major uropathogens. However, the mere presence

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of bacteria in the bladder does not necessarily lead to the development of cystitis. The urothelium of the bladder is covered by a glycosaminoglycan (GAG) layer, which acts as a protective barrier by preventing various urinary solutes, including toxic, acidic, and infectious substances, from penetrating the epithelium. In addition, the mechanical flushing action of urination helps remove bacteria, and multiple immune components within the urine suppress the proliferation of harmful microorganisms. Immune factors such as CD4 and CD8 T cells contribute to infection prevention by binding to bacteria or interfering with bacterial adherence to the urothelium. Therefore, the occurrence of cystitis is closely associated with host immune function.[3]

Acute and chronic cystitis are primarily diagnosed through urinalysis and urine culture. Acute cystitis may resolve spontaneously; however, in contemporary clinical practice, appropriate antibiotic therapy remains the standard of care. In cases in which antibiotic-resistant pathogens are suspected, treatment options may include trimethoprim-sulfamethoxazole (TMP-SMX), fluoroquinolone agents, or beta-lactam antibiotics. Nevertheless, prevention and management strategies are of paramount importance in reducing cystitis incidence. Adequate hydration promotes the elimination of harmful bacteria from the bladder, and maintenance of regular voiding habits, avoidance of delaying urination, postcoital urination, and proper perineal hygiene—such as wiping from front to back after urination or defecation—are recommended lifestyle practices that significantly reduce the risk of developing cystitis.[4]

The patient in this case had experienced chronic, recurrent cystitis accompanied by persistent discomfort, for which she had previously undergone inpatient treatment at a hospital. Subsequently, she was introduced to Ortho-Cellular Nutrition Therapy (OCNT) through an acquaintance and reported symptomatic improvement following its application. This case report aims to present the observed clinical improvement.

Case Study

1. Subject

A single case of a patient with chronic cystitis was examined.

1) Name: Ann OO (72 years/F)
2) Diagnosis: Chronic cystitis
3) Onset: Not available
4) Treatment period: August 23, 2024 – December 31, 2024
5) Chief complaint: Dysuria, voiding difficulty, urinary frequency, nocturia
6) Past medical history: Pulmonary tuberculosis, childhood asthma, gastritis, constipation, bronchitis, previous hospitalization due to cystitis
7) Social history: Buddhist temple residency
8) Family history: None
9) Present illness and current medications: None

2. Methods

The patient underwent OCNT, as summarized in Table 1.

Table 1. OCNT Applied to the Patient

Month / Product	1	2	3	4
Cyaplex F granule	101	101	101	101
Debactin granule	101	101	101	-
Bioplex F	101	101	101	101
Gastron granule	101	101	101	101
Noeufa Raphanus seed oil	101	101	101	101
Heartberry Cran	100	100	101	101
Apple vinegar powder	-	-	-	101

* 100: once daily, one sachet/tablet in the morning; 101: twice daily, one sachet/tablet in the morning and evening

Results

The patient reported multiple discomforts related to recurrent cystitis, chronic gastritis, constipation, and bronchitis. Notably, she had previously undergone four days of inpatient treatment due to an exacerbation of cystitis, after which she initiated OCNT upon recommendation from an acquaintance. After three days of OCNT intake, the patient experienced expectoration of a large amount of sputum, which was followed by improvement in respiratory symptoms. During the same period, burning sensations around the lower abdomen and genital area also showed improvement. After one month, the frequency of nocturia decreased from 4–5 times to approximately twice per night, accompanied by marked improvement in abdominal bloating and digestive function. Overall symptoms related to cystitis showed progressive improvement throughout the intervention period. Symptom changes observed in accordance with OCNT administration are summarized in Table 2.

Table 2. Severity of symptoms reported by the patient during OCNT. Higher scores from 0 to 5 indicate greater discomfort experienced by the patient.

Month / Symptoms	1	2	3	4
Dysuria	3	2	1	0
Voiding difficulty	3	2	1	0
Urinary frequency	3	1	1	1
Nocturia	4	2	1	1
Sputum and cough	3	1	0	0
Abdominal bloating	4	2	1	0

0: No symptoms and no impact on daily activities; 1: Mild symptoms with minimal impact on daily activities; 2: Noticeable symptoms requiring minor adjustments in daily activities; 3: Symptoms significantly affect daily activities, making some tasks difficult; 4: Major difficulty performing tasks during daily activities; 5: Symptoms severely interfere with daily activities, causing substantial distress

Discussion

The patient was a woman in her 70s who lived as a Buddhist lay practitioner and participated in temple volunteer activities. She reported frequent episodes of cystitis, including dysuria, urinary frequency, and nocturia, which were associated with prolonged prayer practices and a demanding volunteer schedule. Daily life stress was also accompanied by chronic symptoms such as gastritis, constipation, and bronchitis, and she had a history of a four-day hospitalization due to recurrent cystitis exacerbation. Therefore, OCNT was administered with the aim of alleviating discomfort and pain while improving symptoms associated with cystitis.

First, Cyaplex F granule was prescribed to the patient, as it contains a high concentration of polyphenolic compounds, particularly anthocyanins, which are expected to support the reduction of inflammation associated with cystitis. According to multiple review studies, anthocyanins may play a preventive role against UTIs. The European Association of Urology (EAU) guidelines also include anthocyanin-rich berry products as an alternative prophylactic option for women with recurrent UTIs.[5] Based on these findings, Cyaplex F granule was administered to this patient with chronic recurrent cystitis to promote symptomatic improvement.

Bioplex F contains fructooligosaccharides (FOS), a carbohydrate-based dietary fiber found in perennial vegetables and grains such as artichoke, chicory, and onion. Supplementation with fructooligosaccharides supports the growth of beneficial gut microbiota, which may positively influence the incidence of cystitis.[6] In a study analyzing the relationship between gut microbiota and urinary tract infection, individuals with higher abundances of beneficial bacteria such as *Faecalibacterium spp*. and *Romboutsia spp*. demonstrated a lower likelihood of bacteriuria. Conversely, subjects with bacteriuria exhibited significantly reduced populations of these beneficial gut microbes compared with those without bacteriuria.[7] Therefore, fructooligosaccharides were prescribed to this patient in an effort to improve gut microbial balance and contribute to reducing urinary tract infection risk.

Lastly, Noeufa Raphanus seed oil was prescribed, as it contains a high concentration of omega fatty acids. Omega fatty acids include the polyunsaturated fatty acids eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), which are known to exert beneficial effects through anti-inflammatory and immunomodulatory mechanisms.[8] Given that this patient also experienced discomfort associated with various inflammatory conditions, including gastritis and bronchitis, this product was prescribed with the aim of improving symptoms related to inflammatory responses.

This patient experienced chronic recurrent cystitis associated with daily stress and a demanding lifestyle within a Buddhist temple community, which led to the implementation of OCNT. Because she also had a history of multiple inflammatory conditions, OCNT was administered with the expectation of enhancing immune function and providing antioxidant and anti-inflammatory benefits. As a result, the patient reported notable improvement not only in cystitis-related symptoms such as dysuria, urinary frequency, and nocturia, but also in underlying respiratory symptoms, including productive cough. Although this report describes a single case and thus cannot be generalized to all patients with cystitis, the marked improvement observed within a relatively short period suggests potential clinical usefulness. With informed consent from the patient, this case is presented to share its observed therapeutic outcomes.

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