CellMed
Cellmed Orthocellular Medicine and Pharmaceutical Association

Special Issue_Case Report

세포교정영양요법(OCNT)을 이용한 요로결석 및 만성 소화불량 개선 사례

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A Case Report on Improvement of Urolithiasis and Chronic Dyspepsia Using Ortho-Cellular Nutrition Therapy (OCNT)

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ABSTRACT

Objective: To improve the symptoms of patients with urolithiasis and chronic dyspepsia using OCNT.

Methods: A 60-year-old Korean male who had undergone extracorporeal shock wave lithotripsy six times without natural stone removal was treated with OCNT for two weeks.

Results: The stones were removed through adequate hydration and light exercise while undergoing OCNT.

Conclusion: The application of OCNT in patients with urolithiasis can be beneficial in alleviating symptoms.

Keywords Ortho-Cellular Nutrition Therapy (OCNT), Urolithiasis, Dyspepsia

Introduction

Urolithiasis refers to the formation of stones (calculi) in the urinary tract, which is involved in the production, transport, storage, and excretion of urine. Depending on the location of stone formation, it can be classified into renal calculi, ureteral calculi, bladder calculi, and urethral calculi. A characteristic of stones obstructing the ureter or renal pelvis is severe, intermittent pain spreading from the flank to the groin or inner thigh.[1] This occurs due to the transmission of referred pain signals from the thoracic splanchnic nerves to the lumbar splanchnic nerves when the stone moves from the kidney or proximal ureter to the distal ureter. Most stones have a combination of genetic and environmental factors. Key risk factors include high urinary calcium levels, obesity, diet, medications, calcium supplements, hyperparathyroidism, gout, and insufficient fluid intake. In particular, dehydration due to low fluid intake is a major factor in stone formation. It is a well-known fact that people living in warmer climates are at a higher risk of urolithiasis due to increased fluid loss.[2] Preventing stone formation by ensuring adequate hydration is beneficial; producing over 2 liters of urine per day is helpful.[3]

Urolithiasis is diagnosed by assessing the patient's symptoms, physical examination, urine tests, and radiographic examinations. Patients suspected of having ureteral calculi may experience increased pain when the back area is gently tapped. In cases accompanied by urinary infection, urinalysis may show pyuria with increased urinary leukocytes and the presence of bacteria. Simple radiographic imaging can detect stones, but stones not visible on plain radiographs can be missed. Additionally, ureteral stones may be obscured by the pelvic bones or difficult to distinguish from feces or other organs, so contrast studies or computed tomography (CT) may be necessary to confirm the presence of stones.

The patient in this case report was diagnosed with urolithiasis and underwent multiple treatments without progress, eventually opting for surgery. This report aims to document the outcomes of applying OCNT to such a patient.

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Received Jan 31, 2024; **Accepted** Jan 31, 2024; **Published** Jan 31, 2024
doi: http://dx.doi.org/10.5667/CellMed.spc.066

† This report has been translated and edited by the CellMed editor-in-chief, Prof. Beom-Jin Lee.

Case

1. Subject

This case study focuses on one patient with urolithiasis.

1) Name: Kim O O (M/60 years old)
2) Diagnosis: Urolithiasis
3) Date of Onset: 2022
4) Treatment Duration: 2 weeks (14 days)
5) Primary Symptoms: Frequent belching, indigestion
6) Past Medical History: None
7) Social History: Former smoker (quit 5 years ago), alcohol consumption (once a week)
8) Family History: None
9) Current Medications: Liver medication

2. Methods

Heartberry Black (101, twice a day, one sachet per intake)
Aqua SAC Pure (101, twice a day, one sachet per intake)
Cyaplex Mineral Rock Salt (100, once a day, one sachet per intake)
The patient consumed these by dissolving one sachet in 500 ml of water for each intake.

Results

The patient, a 60-year-old male, was diagnosed with urolithiasis in 2022. Despite undergoing extracorporeal shock wave lithotripsy six times, the stones were not eliminated, and his symptoms worsened over time. He was awaiting surgery for stone removal. During this period, he underwent OCNT for about two weeks, along with some light exercise. During the OCNT, the stones were naturally expelled. Additionally, the patient had been suffering from chronic indigestion, experiencing discomfort related to increased gas formation during the digestion process, which also improved. Consequently, he did not require surgery for urolithiasis and has not experienced discomfort due to urolithiasis or indigestion since.

Discussion

In this case, the patient had undergone extracorporeal shock wave lithotripsy multiple times, but the stones were not completely removed. There can be various reasons for this. The size, shape, location, and composition of the stones can make fragmentation challenging. Particularly, large stones or certain types of stones may not be sufficiently destroyed even after several attempts. Additionally, if the stones are highly dense or extremely hardened, shock waves might not penetrate effectively, or their fragmentation can be difficult. While extracorporeal shock wave lithotripsy has the advantage of removing urolithiasis without surgery or anesthesia, it works by fracturing the stone to facilitate natural expulsion, which can cause pain as the fragmented stones pass through the ureter to the bladder.

Calcium is one of the components of calcium oxalate, the main constituent of human urolithiasis. Past studies have reported that consistent intake of calcium or vitamin D supplements significantly increases the risk of urolithiasis.[4] However, it's also emphasized that dietary calcium intake helps prevent urolithiasis.[5] Moreover, a 2005 study involving 30,448 urolithiasis patients showed a significantly increased incidence of kidney stones in people with metabolic syndrome (obesity, diabetes, hypertension, dyslipidemia).[6] These results indicate that urolithiasis is not a simple disease but can occur due to complex factors depending on the patient's health status.

The patient in this case suffered from chronic indigestion and frequent belching, which can influence the formation of urolithiasis. Indigestion can reduce the production of acid in the stomach, leading to decreased solubility of calcium in the small intestine. This reduces the absorption of calcium in the small intestine and increases the amount of calcium excreted in the urine, contributing to stone formation.[5] Chronic indigestion, which results in inadequate production of gastric acid, can hinder protein breakdown and cause digestive disorders and abdominal distension. Gastric acid secretion is regulated by parietal cells in the gastric mucosa, and it's known that Ca^{2+} is involved in this process.[7] In vitro study has shown that when Ca^{2+} ions in parietal cells are precipitated and their normal function is limited, acid secretion decreases.[8] Therefore, intake of various minerals like calcium and magnesium contained in Aqua SAC Pure and Cyaplex Mineral Rock Salt can help improve symptoms by promoting gastric acid secretion and ensuring normal intestinal absorption of calcium.

Citric acid in Heartberry Black can inhibit the formation and growth of oxalate and phosphate stones, which strongly bind with calcium in the urine.[9] Clinical trials have shown that the intake of chloride-citrate in adults reduced factors influencing urolithiasis formation and significantly decreased the size of pre-existing stones.[10] One of the components of Heartberry Black, epigallocatechin gallate (EGCG), has various functions, including regulating glucose metabolism, α-amylase, and α-glucosidase activity, and protecting internal organs, which could also have contributed to the improvement of the patient's indigestion.[11]

The patient in this case likely experienced worsening urolithiasis symptoms due to chronic indigestion and abnormal calcium metabolism. Therefore, restoring normal gastric function and reducing calcium excretion in the urine might have helped in expelling the remaining stones. However, this is a single case, and more clinical

cases are needed to prove the relationship between digestive function and stone formation. Additionally, consistent hydration was recommended, and the stones might have naturally expelled through the ureter due to the previous lithotripsy.

This case report is presented with the patient's consent.

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