

## 세포교정영양요법(OCNT)을 이용한 림프부종 개선 사례 연구

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### A Case study on the improvement in lymphedema patient using Ortho-Cellular Nutrition Therapy (OCNT)

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#### ABSTRACT

**Objective:** Lymphedema case study through the application of Ortho-Cellular Nutrition Therapy (OCNT)

**Method:** OCNT is implemented to a Korean female patient in her 70s with difficulties in walking due to severe swelling in one of her legs.

**Results:** Lymphedema was improved following implementation of OCNT.

**Conclusion:** Application of OCNT to lymphedema patient can be helpful.

**Keywords** Ortho-Cellular Nutrition Therapy (OCNT), lymphedema

#### Introduction

Lymphedema is a chronic disease in which the tissues swell due to improper lymphatic function.<sup>1</sup> The movement of lymph fluid in the initial lymphatic vessels (lymphatic capillaries and collecting ducts) of the body depends on the pressure exerted by the surrounding tissues. For example, pressure exerted on the skin, contraction of muscles or pulsation of neighboring arteries can cause these vessels to dilate or contract, thereby helping lymphatic fluid to move forward. Lymphatic capillaries and collecting ducts have one-way valves that prevent lymphatic fluid from flowing backward. This lymphatic fluid travels to the collecting lymphatic vessels, where the smooth muscles in the lymphatic vessel walls contract and pump lymph fluid to the lymph nodes. This pumping process depends on the amount of lymph fluid coming from the initial lymphatic vessels.<sup>2</sup>

Lower extremity lymphedema manifests most often in

the limbs and can be caused by narrowing in the thighs, where there are fewer other pathways for lymphatic fluid to flow. Although there are various secondary causes of lower extremity lymphedema, the most frequent one is the obstruction or blockage of lymphatic vessels.<sup>2</sup>

Lymphedema is diagnosed primarily through the format of diagnosis of exclusion. This is because it can be caused by lifestyle or other medical conditions.<sup>3</sup>

The most effective treatments for lymphedema include complete decongestive therapy (CDT), manual lymph drainage (MLD), compression therapy, exercise and lifestyle changes. A combination of these treatments is applied depending on the conditions and needs of the patient.<sup>4</sup>

If lymphedema aggravates, degenerative changes are observed in the lymphatic vessels, which results in fibrosis and blocking of the lymphatic vessels. Accumulation of lymphatic fluid induces development of edema, changes in fatty tissues, disorders in and hardening of skin, and shrinking of lymphatic vessels.<sup>5</sup>

Surgery is usually reserved for patients with lymphedema for whom standard treatment failed and is aimed at reducing the volume rather than curing it.<sup>6</sup>

This case is reported with the consent of the patient since the lymphedema symptoms, which are difficult to improve even after surgical treatment, have been improved through simple OCNT.

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## Case

### 1. Subject

It was conducted on 1 case of lymphedema patient.

- 1) Name: ○ ○ Kim (F/76 years)
- 2) Name of diagnosis: Lymphedema
- 3) Date of manifestation: 2018
- 4) Treatment period: July 4, 2023 ~ Present
- 5) Main symptoms: One of the legs was firmly swollen by about 2 folds in comparison to the other leg with severe pain
- 6) Past medical history: Hepatocirrhosis and experienced numerous complications after having been hospitalized due to ascites in 2018
- 7) Past social history: None (frequent alcohol consumption prior to the diagnosis of hepatocirrhosis)
- 8) Past family history: None
- 9) Current medical condition and medication being administered: Follow-up observation at each 6-month interval at liver diseases department with no administration of medicine

### 2. Method

#### A. July 4 ~ 18, 2023

Cyaplex X Granule (101, 1 sachet at a time for 2 times a day)

Collaplex (101, 1 sachet at a time for 2 times a day)

Viva Circu (101, 1 capsule at a time for 2 times a day)

#### B. July 19 ~ August 18, 2023

Cyaplex A Capsule (202, 2 capsules at a time for 2 times a day)

Collaplex (100, 1 sachet at a time for once a day)

Viva Circu (100, 1 capsule at a time for once a day)

#### C. September 1 ~ October 1, 2023

Cyaplex A Capsule (202, 2 capsules at a time for 2 times a day)

Haepobooster F (100, 1 sachet at a time for once a day)

Viva Circu (100, 1 capsule at a time for once a day)

#### D. December 4 ~ 8, 2023

Vivagin X Capsule (101, 1 capsule at a time for 2 times a day)

Viva Circu Capsule (100, 1 capsule at a time for once a day)

Viva Kan Capsule (100, 1 capsule at a time for once a day)

#### E. December 8, 2023 ~ Present

Cyaplex A Capsule (202, 2 capsules at a time for 2 times a day)

Vivagin X Capsule (101, 1 capsule at a time for 2 times a day)

Viva Circu Capsule (100, 1 capsule at a time for once a day)

Viva Kan Capsule (001, 1 capsule at a time for once a day)

### Results

At the time of the first visit on July 4, 2023, bruises due to burst blood vessels were observed on both wrists, and one of the legs was swollen by about 2 folds in comparison to the other leg. Lymphedema was suspected as it was a hard edema that cannot be pressed with fingers easily.

The patient complained of edema in the leg, generalized circulatory disorder symptoms, leg pain and frequent cramps over several years. In addition, she could only walk for about 30 minutes due to the pain in her legs.

During the 1<sup>st</sup> session of OCNT, she was recommended to exercise such as walking for at least 15 minutes daily and frequent foot or half baths.

When the 2<sup>nd</sup> session of OCNT began on July 18, 2023, her pain improved although her lymphedema had not improved significantly.

At the time of the 3<sup>rd</sup> session of OCNT on September 1, 2023, the edema in her leg was clearly reduced, and the pain and numbness improved to the point of being able to walk for more than 30 minutes without limping during walking exercises.

Prior to the commencement of the 4<sup>th</sup> session of OCNT on December 4, 2023, her skin condition improved as the result of the improved circulation achieved through the 1<sup>st</sup> ~ 3<sup>rd</sup> sessions of OCNT. However, when the patient stopped OCNT, her skin and scalp became very itchy and dry. Accordingly, focus was placed on restoring her liver function in order for her to continue OCNT for a prolonged period of time. This resulted in her symptoms improving within 4 days. Since then, she has been maintaining her existing OCNT to maintain her current conditions (**Table 1**).

**Table 1.** Changes observed over the 5 months of implementation of OCNT are indicated with relevant index with range of 1~5. Symptoms are severer with higher values.

Symptoms	1 <sup>st</sup> session 2023.07.04	2 <sup>nd</sup> session 2023.07.18	3 <sup>rd</sup> session 2023.09.01	4 <sup>th</sup> session 2023.12.04	Remarks
Lymphedema	3	3	1	1	Swelling in the leg reduced from 2 folds -> less than 1.3 folds
Leg pain	2	2	1	1	Reduced pain when walking
Skin disorder	2	1	1	2	Recurrence of skin disorder 2 months after the discontinuation following the 3 <sup>rd</sup> session

### Considerations

The patient is a 76-year-old female with the past medical history of having been hospitalized in 2018 due to ascites arising as a complication of hepatocirrhosis. Although she was undergoing followed-up observation with blood tests and ultrasonography at every 6-month interval for her liver disorder, she was not taking any medications. She had been taking omega-3 and various nutritional supplements, but his leg swelling, which began in 2018 without significant improvement in her swollen leg over many years.

At the time of her 1<sup>st</sup> visit to my pharmacy in July 2023, one of the legs was swollen by about 2 folds in comparison to the other leg with the disappearance of the external curvature in the ankle and was very firm to the extent of not being able to be pressed with fingers. Since it was painful to walk, she limped slightly and could not walk for a prolonged period of time. As there was no improvement even if she slept with leg elevated for several years, lymphedema was suspected and OCNT was recommended.

Collagen is involved in the generation of lymphatic vessels and collagen contained in Collaplex can inhibit lymphedema by strengthening the (lymphatic) vascular tissues.<sup>7</sup> In addition, since lymphedema often displays immune dysfunction, Cyaplex X, which contains anthocyanin as an antioxidant, was recommended to focus on strengthening immune function while strengthening lymphatic and vascular tissues at the same time.<sup>8,9</sup>

The flavonoid component of Ginkgo biloba leaf extract in Viva Circu and the bioflavonoid component in Collaplex help to improve lymphedema.<sup>10,11</sup> Bioflavonoid is a subset of flavonoids and refers to specific compound in plant-derived flavonoid that has beneficial bioactivity in the body.

At the time of the 2<sup>nd</sup> visit, Cyaplex X Granule was substituted with Cyaplex A Capsule due to convenience in administration and financial issues, while it was recommended that she continues to take Collaplex and Viva Circu. After a total of 45 days of treatment between the time of the 1<sup>st</sup> and the 2<sup>nd</sup> visits, her lymphedema improved with the swelling being reduced from 2 folds to 1.3 folds, along with substantial improvement in the pain, allowing her to walk for more than an hour without limping.

At the time of her 3<sup>rd</sup> visit in September, details of her diagnosis as stage 1 hepatocirrhosis were disclosed and, at her request to take glutathione, administration of Cyaplex A and Viva Circu was maintained but Collaplex was substituted with Haepobooster F. After having taken them for one month, she displayed improvements without any discomfort. As such, administration was discontinued for two months. However, she developed severe itching on her scalp and skin, and made her 4<sup>th</sup> visit in December.

At the time of the 4<sup>th</sup> visit, Vivagin X, Viva Circu and Viva Kan were recommended as maintenance therapy due to the financial burden, and, with improvement in itching slightly after 4 days, Cyaplex A was added.

Even though lymphedema is a disorder that is difficult to manage with conventional conservative and surgical treatments and her symptoms had not improved for many years, it was confirmed that her leg edema suspected to be lymphedema improved significantly within 2 months with only 3 products, improving the patient's quality of life. Accordingly, OCNT is highly recommended for at least a few months before resorting to surgery.

It is also suspected that the patient had pruritus due to hepatocirrhosis. It is deemed that bile salts, steroids, histamine, lysophosphatidic acid and opioids are thought

to be involved in the regulation of pruritus in chronic liver diseases.<sup>12</sup>

In addition to liver health, the Anthocyanin in Cyaplex can not only improve the liver health but also the overall health of a person, and reduce the risk of type 2 diabetes and cardiovascular disease.<sup>13</sup> After two months of OCNT discontinuation, the patient's skin conditions, which were improved previously, aggravated with manifestation of itchiness, etc. Upon administration of Vivagin X, Viva Circu and Viva Kan (milk thistle<sup>14</sup>) for 4 days, there was slight improvement. As such, the patient was instructed to take the aforementioned products continuously along with Cyaplex A added to her medication regime for a prolonged period of time.

Although this is a single case report and cannot be applied universally to all lymphedema patients, it is being reported with the consent of the patient as it is thought to be a case in which OCNT assisted with the improvement of the symptoms of the patient.

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