

세포교정영양요법(OCNT)을 이용한 점막하종양 환자 개선 사례 연구

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A Case Study on the Improvement of Patients with Submucosal Tumors Using Ortho-Cellular Nutrition Therapy (OCNT)

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ABSTRACT

Objective: A case report on submucosal tumor improvement using Ortho-Cellular Nutrition Therapy (OCNT)

Methods: The subject is a Korean female in her 50s who frequently experiences indigestion and eructation problems and feels psychological discomfort due to submucosal tumors.

Results: After commencing OCNT, she completely recovered from submucosal tumors, verified through an upper gastrointestinal endoscopy one year later.

Conclusion: OCNT can be helpful in the treatment of patients with submucosal tumors.

Keywords Ortho-Cellular Nutrition Therapy (OCNT), submucosal tumor, upper gastrointestinal endoscopy (Gastroscopy)

Introduction

Submucosal tumors are protrusions or masses within the gastrointestinal tract that are covered by normal mucosa.

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Submucosal tumors can be found not only in the stomach but also in the esophagus, duodenum, and colon through endoscopic examinations. Out of 1,000 patients who undergo gastroscopy, it is observed that approximately 3 to 4 patients have submucosal tumors in the stomach. In general, submucosal tumors do not cause symptoms. However, if the tumor is large, it can be accompanied by bleeding and abdominal pain.

Submucosal tumors can exist in various forms depending on the underlying causes, such as cysts,

lymphangiomas, vascular lesions, gastrointestinal stromal tumors (GIST), leiomyoma, carcoid tumors, fibroma, lymphoma, and lipoma. Due to the nature of submucosal tumors, it is difficult to make an accurate diagnosis through tissue sampling because the lesions are located beneath the mucosal layer. ¹Moreover, predicting the growth or malignant transformation of the tumor is hard and therefore, determining the appropriate treatment can be challenging. Prominent attention is required for two representative submucosal tumors, which are gastrointestinal stromal tumors and carcinoid tumors. Gastrointestinal stromal tumors (GISTs) are the most commonly observed submucosal tumors in the stomach; while the majority of GISTs are benign, some can progress to become malignant. Gastrointestinal stromal tumors (GISTs) originate from the muscular layer of the gastrointestinal tract, and when their size exceeds 3cm, there is a higher likelihood of malignancy, so surgical resection should be considered in such cases. Carcinoid tumors originate from neuroendocrine cells, and the malignancy of the lesion is related to its size. If the lesion is less than 1cm and confined to the submucosal layer without lymph node involvement, endoscopic resection can be considered. If a significant amount of air enters the stomach during an endoscopic examination, it can cause extrinsic compression by adjacent organs, leading to a mistaken perception of a tumor. Therefore, to increase accuracy, other diagnostic methods, such as abdominal ultrasound, computed tomography (CT), and endoscopic ultrasound are used to distinguish such cases.¹

① Endoscopy

Endoscopy allows for the differentiation of various submucosal tumors by observing the size, shape, mobility, consistency, and color of the tumor. Cystic lesions are observed with some transparency, while lipomas with yellowish coloration. Vascular lesions

have a bluish coloration, similar to varices. If a submucosal tumor is soft and mobile, it is suspected to be a lipoma.

② Endoscopic ultrasound

Endoscopic ultrasound allows for the accurate differentiation between submucosal tumors and extrinsic compression. It is the key diagnostic method for distinguishing submucosal tumors based on their size, internal features, and adjacent lymph node involvement.

③ Other imaging diagnostic methods

Imaging diagnostic methods used for diagnosing submucosal tumors include abdominal ultrasound, computed tomography (CT), magnetic resonance imaging (MRI), and positron emission tomography (PET). However, these imaging methods are not particularly useful for observing the location where submucosal tumors initially develop, as they are challenging to visualize the wall of the gastrointestinal tract. On the other hand, these imaging methods are helpful in diagnosing extrinsic compression, identifying large lipomas, and assessing the presence of metastasis in malignant gastrointestinal stromal tumors (GISTs).

Submucosal tumors have a lower incidence rate compared to other types of tumors, and their natural progress is not well known. If cystic lesions, lipomas, or vascular lesions are suspected, further testing, treatment, or follow-up examinations are not necessarily required. There is currently no pharmacological treatment available for submucosal tumors.

Cases Study

1. Target

A case study was conducted on a patient with submucosal tumor.

1) Name: Jang, O O (F/54 years old)

- 2) Diagnosis: Submucosal tumor
- 3) Date of Onset: April 2022
- 4) Treatment Period: May 2022 to April 2023
- 5) Chief Complaint: Eructation and indigestion symptoms
- 6) Past History: None
- 7) Social History: None
- 8) Family History: None
- 9) Current medication: None

2. Method

1st line OCNT

Traditional herbal medication granules for digestion

Cyaplex X (101, twice a day, 1 sachet per dose)

Eufaplex (101, twice a day, 1 sachet per dose)

Aqua SAC Pure (101, twice a day, 1 sachet per dose)

Heartberry black (101, twice a day, 1 sachet per dose)

Cyaplex Mineral Rock Salt (0.5 0 0.5, twice a day, half sachet per dose)

No improvement was observed after 6 months of taking regimen.

2nd line OCNT

Traditional herbal medication granules for digestion

Cyaplex X (101, twice a day, one sachet per dose)

Eufaplex (101, twice a day, one sachet per dose)

Aqua SAC Pure (101, twice a day, one sachet per dose)

Heartberry black (101, twice a day, one sachet per dose)

Cyaplex Mineral Rock Salt (0.5 0 0.5, twice a day, one sachet per dose)

Notoplex (101, twice a day, one sachet per dose)

① Diet

Three balanced meals per day on time, and in moderate portions, with a preference for a Korean-style diet, was recommended. Recommended foods include mixed grain rice as the staple if digestion got difficult, with options like white rice, vegetables (beans, carrots,

pumpkins, garlic, onions, leafy greens), seaweed (sea mustard, kelp, laver), fish, and fermented condiments (bean paste, soy sauce, soybean paste). Only natural sea salt was recommended as the seasoning.

② Exercise

1) Breathing

Diaphragmatic breathing, in other words, abdominal breathing, improves energy levels, reduces tension, and improves mental activities.

2) Posture

Poor postures, such as slouching, drooping shoulders, or a lowered head, can lead to shallow breathing and low energy levels, but lifting the head to sit up and straightening the spine and neck can bring about self-confidence and increase energy levels.

3) Bodywork

Bodywork relieves tension by continuously stimulating the connective tissue that supports the human body, muscles, bones, and organs softly, and regular exercise can make one feel better and relieve stress and tension by releasing endorphins.

4) Exercise

30 minutes of daily exercise (10 minutes of bodily exercise, 20 minutes of walking) can reduce stress, tension, depression, lethargy, and anxiety.

Result

The patient is a 54-year-old female who was diagnosed with a submucosal tumor in April 2022. Due to the lack of improvement in symptoms during the initial 6-months period of OCNT, the medication was switched from Cyaplex X to Cyaplex F and added Notoplex to the regimen. After 4 months approximately, the patient experienced improved digestion and a significant reduction in belching. After an additional 2 months, in May 2023, the endoscopy revealed the disappearance of the submucosal tumor (**Fig. 1**).

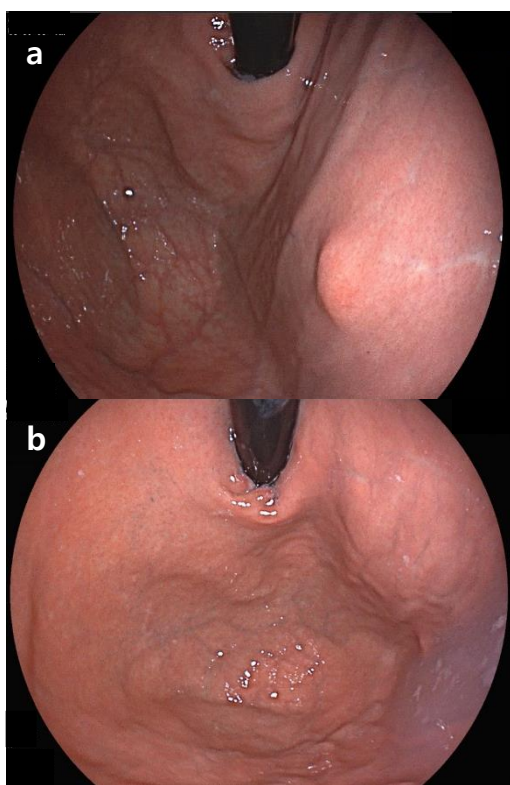


Fig. 1. Comparison of before and after photos of OCNT. (a) Photo prior to OCNT in Apr. 2022. (b) Photo after OCNT in May. 2023.

Consideration

The patient, in this case, was a 54-year-old female diagnosed with a submucosal tumor in April 2022.

Submucosal tumors are commonly found at the age of 50s and are often small in size and asymptomatic. However, in cases where symptoms are present, the general principle is to perform resection through endoscopy or surgery. For mucosal tumors smaller than 1 cm, asymptomatic and without complications, with no potential of malignancy, further monitoring with endoscopy or endoscopic ultrasound every 1-2 years is recommended. For mucosal tumors larger than 2 cm or those accompanied by symptoms such as bleeding or obstruction, and when malignancy is suspected, surgery is the primary treatment approach. Endoscopic resection is usually performed for tumors less than 2 cm in size and when they do not invade the muscularis propria layer, making it a safe procedure. It is recommended to obtain tissue samples for lesions located within the muscularis propria layer and measuring between 1 to 3 cm in size, with consideration for gastrointestinal stromal tumors. Try to obtain tissue samples through repetitive tissue sampling at the same site, endoscopic mucosal resection, or endoscopic ultrasound-guided fine-needle aspiration to ensure adequate tissue for examination. Tumors from the muscularis propria layer, measuring 3 cm or larger, can cause symptoms and have a higher potential of malignancy, and require surgical resection.²Most mucosal tumors cannot be treated with medication alone and require surgical resection.³However, in the case of this patient, who had a small-sized mucosal tumor without symptoms, OCNT was implemented to aid in natural healing. This decision was based on Ginsenoside-Rb2 from Notoplex's potential to inhibit tumor angiogenesis and exhibit⁴ anti-cancer effects⁵, and the presence of anti-cancer activity in golden⁶ extract further raised expectations for the regression of the tumor. Furthermore, the extract of *Panax notoginseng* root contained in Notoplex was found to promote the proliferation of colony-forming unit-granulocyte macrophage (CFU-GM) and erythroid

hematopoietic progenitor cells (CFU-EHP) in vitro and induce the formation of transcription factors NF-E2, c-jun, and c-fos in AP-1 hematopoietic cell lineages. In addition, it increases the binding activity with specific DNA stimulators and regulates the expression of genes associated with the proliferation and differentiation of human hematopoietic cells.^{7,8}In summary, it was recommended with the purpose of improving blood flow to the mucosal layer by assisting in hematopoiesis, promoting blood production, and facilitating the smooth circulation of blood.

It has been shown in vitro experiments that anthocyanins found in Cyaplex X, F, and Heartberry black inhibit the growth of tumor cells⁹, and linoleic acid, an unsaturated fatty acid found in Eufaplex, is converted to GLA (all-cis-6,9,12-octadecatrienoic acid, C18:3, n-6) by D-6-desaturase, and GLA and its metabolites play a crucial role in regulating cell apoptosis, selectively inhibiting the growth of tumor cells.¹⁰

Calcium found in Aqua SAC pure also participates in cell apoptosis, contributing to the elimination of tumor cells.^{11,12}

As this is a single case study, the findings may not be universally applicable to all patients with mucosal tumors. However, it is reported with the patient's consent as a case that has shown improvement in symptoms.

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