Case Report

A case report of traditional Korean medicine treatments on uterine myoma with thyroid cancer

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ABSTRACT

Uterine myoma is a common benign tumor. When the symptoms are not severe, patients are often suggested to wait for menopause without treatment. If the size becomes too large or the symptoms get worse, the patient will receive surgery or hormone therapy. If a patient does not receive surgery or hormone therapy because of the waiting period, traditional Korean medicine (TKM) treatment can be applied. This is a case of a 47-year-old woman who was diagnosed with thyroid cancer and uterine myoma. She was diagnosed with thyroid cancer in 2012 and uterine myoma in 2013. She had not received treatments. In December 2017, the size of the uterine myoma increased to more than 8 cm, and the patient suffered from dysmenorrhea, urination frequency, and vaginal discharges. She wanted TKM treatment instead of surgery or hormone therapy. From January 16, 2018 to April 12, 2018, she received TKM treatment; herbal medicine, acupuncture, moxibustion, and pharmacopuncture. Before the treatment, the urination frequency was more than 10 times a day, but decreased to 6–7 times a day after treatments. Dysmenorrhea decreased from VAS8 to VAS5 after treatments. After menstruation, the duration of vaginal secretion persisted for 3–4 days, but after treatments, it was visible only for a day after menstruation. Ultrasonography showed that the thyroid cancer did not worsen and the size of uterine myoma decreased by 2 cm. It is considered that TKM treatment, as a substitute for surgery or hormone therapy, will exert positive effect on uterine myoma without the aggravation of thyroid cancer.

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1. Introduction

The uterine myoma is the most common benign tumor in the uterus. It is common in fertile women and is found in the frequency of 20–30%. It is caused by gene abnormality and hormonal effects. Typical symptoms include abnormal uterine bleeding, pelvic pain, sciatica, urinary frequency, dysuria, and constipation. Symptoms vary according to the site, type, and size of the lesion but in most cases (50–65%), there are no symptoms.\(^1\) Recently, various treatment methods such as uterine artery embolization and HIFU (high-intensity focused ultrasound) have been attempted in addition to hormone therapy and surgical treatments.\(^2\) In traditional Korean medicine, the treatment depends on the diagnosis of symptoms. For a person who is diagnosed as a static blood type, coagulated blood needs to be circulated. Warming the body and removing body fluids are suitable for a person who is diagnosed as a cold-damp type.\(^3\) This is a case report of a 47-year-old woman with uterine myoma who was diagnosed with thyroid cancer. She had psychological burdens for surgery because already had malignant tumor operation years ago. In addition, she struggled to manage the expenses of treatment also. Therefore, she did not want to receive any surgical interventions against uterine myoma. So she received traditional Korean medicine treatments for uterine myoma from January 16, 2018 to April 12, 2018. After treatments including acupuncture, moxibustion, herbal medicine, and pharmacopuncture, the main symptoms and the size of uterine myoma decreased without aggravating the thyroid cancer.

2. Case presentation

2.1. Patient characteristics and medical history

A 47-year-old woman visited a traditional Korean medicine clinic with uterine myoma after a gynecological examination without treatments. Her chief complaints are as follows: (1) underbelly pressure: begins to feel pressure from the pubic area 2–3 days before the menstruation. It lasts for 2–3 days after menstruation. (2) Frequent urination: usually urinates more than 10 times a day.

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During the menstrual period, the urge to urinate is accompanied by pressure in the lower abdomen. (3) Dysmenorrhea: from the beginning of 2017 (age 46), menstrual pain became worse and the amount of menstruation increased. (4) Leucorrhea: from the beginning of 2017 (age 46), vaginal secretion lasted 3–4 days after menstruation. Previously, there was vaginal secretion only for a day after menstruation. She was diagnosed with uterine myoma in 2017, and as the size was bigger than 8 cm, hormone therapy was also recommended (Fig. 1).

She received surgical treatment for myosarcoma on the upper-back area at the tertiary hospital in 1988 (age 17). She received a surgery for cholelithiasis in 1993 (age 23). She was diagnosed with thyroid carcinoma in 2012 (age 41) and did not receive any intervention. Her menstrual history is as follows: (1) cycle: 25–28 days, (2) duration: 3–4 days, (3) pain: there were no hindrances in general life. Since January 2017, menstrual pain has increased, so she took painkillers on the first day of menstruation, and (4) secretion: after menstruation, small amounts of white secretions were visible for a day. From early 2017, yellowish sticky secretions after menstruation lasted for 3–4 days. Her obstetric history was full-term birth 2, pre-term birth 0, abortion 0 and live offspring 2 (GPAL: 2–0–0–2). First examination of the patient included the following: (1) pulse: faint, weak and thin, (2) sleep: normal, (3) defecation: normal, (4) urination: frequent (more than 10 times a day and the urge to urinate is accompanied by a pressure in the lower abdomen during the menstrual period), (5) digestion: normal, (6) abdomen: a mass was palpable in the underbelly and a slight bump was observed visually, and (7) anthropometrics: 167 cm, 74.7 kg, BMI: 26.8, and BMR: 1562 kcal (Fig. 2).

2.2. Treatment and progress of symptoms

After the examination, the patient was diagnosed as a cold-damp type. In herbal medicine, Gyejibokryoungwhan was chosen because it warms the body and suppresses blood clotting. Also, it has the effect of improving blood circulation and reducing coagulated blood which reduces tumor. About 3 g of Gyejibokryoungwhan (granule type made by Hanpoong pharmaceutical company) was taken twice a day after breakfast and dinner for a total of 85 days from January 16, 2018 to April 11, 2018. Acupuncture treatments were performed on 01/16/2018, 01/18, 01/25, 01/30, 02/01, 02/06, 02/14, 02/27, 03/15, 04/07, and 04/12 (11 times in total). ST36, SP06, ST08, GB16, CV02, CV03, and CV04 were chosen. A total of 11 moxibustion treatments were performed before every acupuncture therapy. Moxibustion therapy was performed for 20 minutes each time on the CV08 and CV04. After the acupuncture treatment, pharmacopuncture was performed with a 1.0 mL to ST25 (2), CV03, CV04, and CV02. In each acupoint, 0.1 mL was used, and in total it was 0.5 mL. The ingredients of pharmacopuncture were Aucklandiae Radix, Salviae miltiorrhizae Radix, and Carthami Flos. During the treatment, there was no change in treatment methods.

The main symptoms after treatments are as follows: (1) Underbelly pressure: the feeling of pressure felt in the pubic bone 2–3 days before menstruation is similar between before and after treatment. (2) Frequent urination: the patient urinated more than 10 times a day, but the number of urination decreased from mid-March 2018 to about 6–7 times a day. However, the continuous feeling of urination during menstruation did not
change. (3) Dysmenorrhea: starting in the year 2017, menstrual pain began to get worse to VAS8 and needed to take analgesics. In February 2018, the use of pain medication was discontinued. The pain reduced to VASS. (4) Leucorrhea: From the beginning of 2017, vaginal discharge continued for 3–4 days after menstruation. However, during the menstrual period in March 2018, the vaginal discharge stopped a day later. (5) The size of the uterine myoma decreased by about 2 cm on the ultrasonography (Fig. 1). (6) There was no significant change in the size of the thyroid cancer. It was not possible to get thyroid function test results from the patient; however, she reported that the thyroid function was within normal range after medical check-up. We found no significant adverse effects during and after treatments.

2.3. Informed consent and ethics

Informed consent is obtained from the patient on the use of personal medical information for publication. This study was approved by the Institutional Review Board at Dunsan Korean medicine hospital of Daejeon University (Deliberation number: DJDSKH-18-E-09).

3. Discussion and conclusion

In this case study, traditional Korean medicine was found to be effective for women with uterine myoma who are close to menopause and for those who did not want surgical or hormone therapy. Patients may refuse surgery due to fear, financial burden or individual situation. They could be proposed alternative treatments instead of invasive surgery, minimizing the growth of uterine myoma and helping her to go through natural menopause. For this, enough information on the advantages and disadvantages of various treatments should be provided. In this case, it had to be assessed whether the treatments may affect aggravation thyroid cancer or not.

In traditional Korean medicine, Gyejibokryounghwan was chosen as a standard prescription in treating uterine myoma for patients diagnosed as a cold-damp body type. The constitutive herbs of Gyejibokryounghwan are as follows (Table 1): (1) Cinnamomi Ramulus contains Cinnamic aldehyde that expands blood vessels to facilitate blood and nutrition in peripheral cells. (2) Poria Sclerotium contains β-Pachymose, Pachymic acid, Protein, Fat, Potassium, and Lecithin. They nourish every cell, activate brain cells to stabilize the mind and improve the frail nature.

They reduce edema by promoting diuretics by inhibiting tubular reabsorption. (3) Moutan Cortex Radicis contains Paenol and Benzyl-oxypaeoniflorin. They can prevent the production of thrombin, and as a result an antithrombotic effect is induced. So, it is effective in removing coagulated blood and body fluid condensation. (4) Paonia Radix contains paoniflorin which suppresses the seizure of vascular smooth muscle and strengthens the exercise capacity of vascular muscles. It also improves urinary frequency by strengthening the exercise capacity of the bladder muscle and strengthens the exercise capacity of uterine muscles. (5) Persicae Semen prevents blood clotting and dissolves the thrombus to remove blood congestion around the uterus and pelvis. It contains lipid oil that relaxes constipation, so it lowers high viscosity hematocrit caused by constipation. The pharmacokinetics of Gyejibokryounghwan in the body are summarized as follows: it increases platelets, fibrinogen, and PATI values. It exhibits antithrombotic effects by reducing platelet aggregation, PT, PTT, FDP, and blood viscosity. It increases the caspase-3 and caspase-9 activity, and Bcl-2 expression. It decreases the cell proliferation, COX-1, COX-2, and MAP kinase activity. Therefore it is often used for uterine myoma because of its antitumor efficacy.

In the acupuncture therapy, the combination of acupoints belongs to the method for treating the lower abdomen in Juheng acupuncture theory. It is a popular method used for treating female genital diseases. These acupoints are used to promote blood circulation and to remove edema for females. SP06, CV03, CV04, and CV02 are preferred acupoints for gynecological diseases in general acupuncture treatment. The moxibustion treatment has the effect of improving blood circulation, improving immunity, and relieving pain with a hot stimulus. Moxibustion therapy was performed on the CV08 and CV04 because those acupoints can stimulate blood circulation in the abdomen.
The pharmacopuncture solution has the effect of relieving blood clots and reducing dysmenorrhea by using certain ingredients to promote blood circulation.\textsuperscript{17} The effects of the solution are as follows: Aucklandiae Radix is mainly composed of saussurine and resin and it has anti-seizure, analgesic, smooth muscle relaxation, and diuretic effects. Salviae miltiorrhiza Radix is mainly composed of diterpenoids and saflavonic acids, which promote blood circulation, sedation and antithrombotic effects. Carthami Flos is mainly composed of chalcones and carthamidin, and it has anti-thrombotic, analgesic and sedative effects. The solution improves blood circulation and eliminates wastes in the blood to reduce pain and tumor.\textsuperscript{18}

In this case study, the patient had a present history of thyroid cancer, so it was necessary to confirm the effects of the above treatments on the thyroid cancer. According to the patients’ memory, the size of the thyroid cancer was about 1 cm. This study was performed with a careful consideration of the progress of the thyroid cancer. Ultrasonography was used as a method to confirm the condition of the thyroid cancer. After treatments, ultrasonic examination revealed that the size of the thyroid cancer was 0.79 $\times$ 0.85 cm. The change in size could not accurately be compared due to the lack of previous recordings, but estimations were made that the treatments for uterine myoma did not affect the size of the thyroid cancer. The size of uterine myoma was confirmed by ultrasonography. The evaluation of the therapeutic effect on the uterine myoma through ultrasonography has already been studied.\textsuperscript{19,20} In this study, the size of the uterine myoma was 9.13 $\times$ 6.64 cm on November 30, 2017 (Fig. 1A). The treatments started on January 16, 2018. After 2 months of treatments, on March 15, 2018, the size of the uterine myoma was 9.81 $\times$ 5.66 cm (Fig. 1B). The vertical diameter decreased by 0.08 cm, but the lateral diameter increased by 0.68 cm. The 0.68 cm increase is within the error range. On the last examination held on April 12, 2018, the size of uterine myoma was measured as 7.77 $\times$ 6.70 cm (Fig. 1C). The vertical diameter increased by 0.14 cm, but the horizontal diameter decreased by 2.04 cm (Table 2). The decrease of the horizontal diameter by 2.04 cm was considered to be a significant change.

Consequently, this 47-year-old woman with thyroid cancer was diagnosed with uterine myoma. Underbelly pressure, menstrual pain, urinary frequency, and vaginal discharge were some of the major symptoms. It was treated with traditional Korean medicine that included herbal medicine, acupuncture therapy, moxibustion treatment, and pharmacopuncture for 3 months from January 16, 2018 to April 12, 2018. Therefore, major symptoms associated with uterine myoma decreased. Menstrual pain decreased from VAS8 to VAS5, urinary frequency decreased from 10 times to 6–7 times a day, and vaginal discharge period decreased from 3 to 4 days to 1 day after menstruation. The size of uterine myoma reduced by about 2 cm without aggravating the thyroid cancer.

**Conflict of interest**

The authors declare that they have no competing interests.

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