

Treatment of Breast Cancer by Internal and External Chinese Medicine Combination Therapy: An Effective Case Report of Traditional Chinese Medicine Treatment

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Abstract

Background: TCM practitioners treat Breast Cancer (BC) by adjusting Qi and blood of Chinese spleen and liver. The combined internal and external treatment of Traditional Chinese Medicine has the advantage of toning body in an internal way and preventing breast cancer in an external way. The current standard treatments cannot solve the root of BC, therefore, resulting in a higher recurrence rate. On the other hand, TCM can effectively treat BC by overall regulating the internal environment, and the balance of yin and yang of the human body.

Aim-Case report: In this report, we present the case of a 76-year-old woman diagnosed with BC (cT1N0Mx, mucinous CA, ER8/8, PR6/8, HER2 (-)) in September 2015. Her body check showed a 1cm mass in the 12 H direction of the right periareolar. She refused operation and all other mainstream treatments and sought the help of TCM in March 2016 at the Central Clinic Centre for Teaching & Research, School of Chinese Medicine, and University of Hong Kong. The patient was diagnosed with stagnation of liver, Qi spleen deficiency and phlegm. We mainly provided her oral herbs decoction and external application with TCM to treat her BC. And in September 2017, the ultrasonography report showed her tumor mass was reduced from more than 1.5*1.5cm to 0.51*0.88 mm.

Methods: In this case, we treated the patient with oral herb decoction and external application including sticking herb and infrared ray on her side breast.

Results: At the one-year follow-up visit, we found that the mass (>1.5*1.5 cm) diminished significantly (0.75*0.88 cm). At the one and a half-year follow-up visit, the mass diminished to 0.51*0.88 cm.

Discussion & conclusion: TCM treatment can be proved to cure breast cancer effectively on a 76-year-old woman who refused western medicine treatment.

Key words: Breast cancer; Chinese medicine; Case report; Combination therapy

Abbreviations: BC: Breast Cancer; TCM: Traditional Chinese Medicine; USG: Ultrasonography; ER: Estrogen Receptor; PR: Progesterone Receptor; CA: Cancer; HER2: Human Epidermal Growth Factor Receptor 2; AI: Aromatase Inhibitor

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Background

Breast cancer is one of the most aggressive malignancies resulting in death in women [1]. According to the related reports, BC causes 30% of all female cancers, which accounts for 14% of cancer death worldwide [2]. In China, the incidence rate of BC rises and it is regarded as the most common cancer in adult women in recent years [3]. Surgery, radiotherapy, chemotherapy, targeted therapy and hormone therapy are commonly seen as standard treatments of breast cancer. Although the average 10-year survival rate of BC is 83% [4], these treatments cannot guarantee the person thoroughly healthy, for they always have side effects on patients like gastrointestinal traction, bone marrow inhibition and so on [5]. Besides, they often cause a loss on drug resistance, recrudescence and shift question. Nowadays, the median age at diagnosis of breast cancer patients in the United States is 62 years old and the risk of using western medicine therapy increases with age [6]. In view of these problems, the risk of the many therapies by western medicine which leads to the high mortality cannot be ignored. Pure Traditional Chinese Medicine (TCM) treatment is not the standard treatment nowadays, but it can prevent some of the side effects and ease the pain. In TCM treatment, practitioners think the cause of breast cancer is liver-Qi stagnation due to being heavyhearted, spleen-Qi deficiency caused by thinking too much and liver-fire flame caused by anger or gluttony [7]. Traditional Chinese Medicine practitioners treat breast cancer by adjusting Qi and blood of spleen and liver [8]. The combined internal and external treatment of Traditional Chinese

Table 1: Oral herbs decoction.

No.	Herbal name	Latin name	Dosage (g)
1	Lizhihe	<i>Semen Litchi</i>	15
2	Juhe	<i>Citrus reticulate Blanco</i>	15
3	Tengligen	<i>Actinidia argute(Sieb. &Zucc)Planch.ex Miq</i>	40
4	Jixueteng	<i>Apatholobus suberectus Dunn</i>	25
5	Dangshen	<i>Codonopsis pilosula (Franch.) Nannf.</i>	25
6	Wuzhualong	<i>Ficus simplicissima Lour.[F.hirta Vahl var. palmatiloba(Merr.)Chun]</i>	70
7	Yiyiren	<i>Coix lacryma-jobi L. var. ma-yuen(Roman) Stapf</i>	40
8	Baizhu	<i>Atractylodes macrocephala</i>	25
9	Lianzi	<i>Nelumbo nucifera Gaertn.</i>	25
10	Shijianchuan	<i>Salvia chinensia Benth.</i>	18
11	Sangjisheng	<i>Taxillus chinensis(DC.)Danser</i>	20
12	Shancigu	<i>Iphigenia indica Kunth</i>	10
13	Cheqianzi	<i>Semen Plantaginis</i>	20
14	Yejaoteng	<i>Caulis Polygoni Multiflori</i>	40
15	Heidou	<i>Glycinemax(L.)merr</i>	25

Introduction of main Chinese medicine and decoction: Lizhihe, Juhe, Tenligen, Wuzhualong, Jixueteng, Baizhu can nourish and smoothen the liver. Yiyiren, Lianzi, Dangshen, Heidou can tonify the spleen. Lizhihe, Shancigu, Shijianchuan can eliminate the phlegm. In this decoction, hardening softening and stagnation resolving herbs like Shijianchuan and Shancigu are the monarch. Circulation promoting and stasis removing herbs like Jixueteng and Wuzhualong, and spleen tonifying herbs like Yiyiren, Lianzi, Dangshen, etc. are the minister.

Table 2: External decoction.

No.	Herbal name	Latin name	Dosage (g)
1	Juhe	<i>Citrus reticulate Blanco</i>	30
2	Jixueteng	<i>Apatholobus suberectus Dunn</i>	60
3	Shijianchuan	<i>Salvia chinensia Benth.</i>	40
4	Shancigu	<i>Iphigenia indica Kunth</i>	40
5	Ezhu	<i>Curcuma zedoaria Christm. Rosc.</i>	30
6	Quangualou	<i>Cucumis melody.L.</i>	40
7	Lizhihe	<i>Semen Litchi</i>	30
8	Huangyaozi	<i>Dioscorea bulbifera L.</i>	20

Introduction of main Chinese medicine and decoction: Jixueteng nourishing blood and invigorate the blood ,Ezhu breaks blood stasis to dispel stagnation.,Huangyaozi(Air Potato Yam): clearing heat and removing toxicity, sputum elimination fights, Quangualou can subsidence of a swelling, and they have an anticancer effect in vitro. In this decoction, heat-clearing, detoxifying, hardening softening and stagnation resolving herbs like Shijianchuan, Shancigu, Huangyaozi and Quangualou are the monarch. Circulation promoting, stasis removing and phlegm expelling herbs like Jixueteng, Ezhu are the minister.

Medicine has the advantage of toning body in an internal way and preventing breast cancer in an external way. TCM treatment of BC can be dated back to the book “Wai Ke Zheng Zong”, which was published in the 17th century. As time goes by, TCM treatment has proved to offer effective recipes to BC therapy. Yet TCM treatment is not a main way to treat BC internationally. TCM treatment is restricted to regulating body condition after an operation or after a standard treatment. However, TCM treatment can have a role in each stage of BC therapy. Whatever the risk factors of BC are, such as prolonged estrogen stimulation or genetically susceptible background, the general principle of TCM treatment of BC is to strengthen vital Qi to eliminate pathogenic factor. And in the holism concept of TCM, BC is viewed as a systemic problem and the tumor a reflection in the systemic process. Under this concept, BC is also an inner disease as well as a surgical disease. Both pure internal and external TCM treatments can control BC effectively for they can tone body by internal way or prevent BC, a subcutaneous tumor, in an external way respectively.

We report a case of BC that can benefit from the advantages of TCM, which includes taking combined internal and external TCM treatments.

Case Report

A 76-year-old woman was admitted to the Central Clinic Centre for Teaching & Research, School of Chinese Medicine, and the University of Hong Kong. Her BC has been confirmed since 29 September 2015 (Reference No: (254) in 7/213/17 Tsuen Wan Hospital). Ultrasonography (USG) report showed a 7 mm lump in the 12 H direction of the right breast. Core biopsy showed it was invasive ductal carcinoma. And in October 2015, the BC was diagnosed as cT1N0Mx, mucinous CA, ER8/8, PR6/8, HER2 (-). Her body check showed 1cm mass in the 12 H direction of right periareolar and axillae clear. CT showed no metastasis in liver and lung. This patient has no family history of BC. But she has a history of cholecystectomy, total thyroidectomy for nodular goiter, hysterectomy for fibroid and osteoporosis.

The standard treatment of this kind of BC is operation first. So, the doctor in the Queen Mary Hospital strongly advised her to undergo surgical treatment. Nevertheless, in view of her age and the fact that she had undergone 3 operations already, the patient was instructed to take Tamoxifen Citrate tablet (20 mg) once a day for 12 weeks to control her breast cancer. In January 2016, body check showed she had (~) 1.5 cm breast mass in the 1 H direction of the right periareolar. The patient herself persistently refused to have an operation which was advised by the western practitioner and hence she visited the Central Clinic Centre for Teaching & Research, School of Chinese Medicine, the University of Hong Kong to seek for help in March 2016.

When she first visited TCM clinic on 10 March 2016, we diagnosed the patient with the four traditional methods of TCM: inspection, listening, inquiry and pulse-taking. The patient was in poor mental condition and was nervous with increased stool frequency and stringy pulse. Although western medicine “Tamoxifen” has been used for nearly 6 months for her cancer therapy, the body check result still showed more than 1.5*1.5 cm tumor mass in the latest examination. So, the patient longed for TCM treatment to control and reduce the tumor growth process. And she gave up the western medicine standard treatment voluntarily. The tumor mass was confirmed to be bigger by palpating the patient’s breast and the patient was diagnosed with

Table 3: Important date.

Date	Examination Mode	Mass Size (cm)	Therapy Methods
23-Sept-2015	BODY CHECK	1	Tamoxifen
8-Jan-2016	BODY CHECK	~1.5	Tamoxifen
10-Mar-2016	TCM Examination	>1.5	TCM Method Decoction (Table1), Tamoxifen
15-May-2016	TCM Examination	~1.5	Infrared Ray Sticking, TCM Method Decoction, Tamoxifen
3-Jun-2016	TCM Examination	~1.5	External Application of TCM (Table2), Infrared Ray Sticking, TCM Method Decoction, Tamoxifen
30-Sept-2016	BODY CHECK	1.5	External Application of TCM, Infrared Ray Sticking, TCM Method Decoction, Tamoxifen
17-Mar-2017	USG	0.75*0.98 cm	External Application of TCM, Infrared Ray Sticking, TCM Method Decoction, Tamoxifen
15-Sept-2017	USG	0.51*0.88 cm	External Application of TCM, Infrared Ray Sticking, TCM Method Decoction, Tamoxifen

stagnation of liver, Qi spleen deficiency and phlegm. Prescription followed the theory of TCM after the patient waived the standard treatment. The patient was first treated by taking oral herbs decoction and she visited the practitioner for re-examination at regular intervals. And on the basis of this decoction, the practitioner revised it with symptoms when she revisited (Table 1).

After 2-month-TCM treatment, the patient started to receive extra-apply by sticking infrared ray on both sides of her affected breast twice a day and she felt her breast tissue becoming softer. Body check showed that the mass maintained at the same size in the last examination. On 3 June 2016, other than oral herbs decoction and the extra application with the infrared ray sticking, the patient started to be treated by an external application with Chinese medicine for 15 minutes twice a day and then she self-massaged her breast from the button up (Table 2).

Before externally applying TCM with use of ginger juice, the patient needed to make medicine packages herself. **Steps are as follows:** *Shancigu* should be shattered and soaked for two or three days before use. Then steam *Shancigu* over high heat for 15 minutes and put it into the shattered mixture of other herbs. Mix the whole herbal mixture which is required to be stirred for about 2 minutes with little distilled liquor to the degree of pasty form. Put appropriate mixture into a package and heat it before use. The external way aims to attack pathogen by absorbing active ingredient through skin.

Results

In January 2017, we found the tumor had shrunk after palpation, and that was felt by the patient. On 17 March 2017, USG showed the breast mass significantly decreased, which was the size of 0.75 cm*0.98 cm. On 5 September 2017, USG showed the breast mass was of the size of 0.51 cm*0.88 cm and body check showed axilla clear. As her condition was better, the western hospital didn't exam the patient furthermore.

Discussion

In this case, the patient, a postmenopausal woman (76 years old), was initially diagnosed as having breast cancer (cT1N0Mx, mucinous CA, ER8/8, PR6/8, HER2 (-)). And core biopsy showed it was invasive ductal carcinoma.

The international standard treatment of this kind of BC is operation, chemotherapy, radiotherapy first, and the second step is supportive

hormonal therapy using Aromatase Inhibitor (AI) [9]. Obviously, these ways may influence the quality of the patient's life [10], and tamoxifen is not a good choice for a 76-year-old woman. It was found out that her tumor was becoming larger after using tamoxifen for 6 months meaning that hormonal therapy did not help this patient. Under this circumstance, we can infer that TCM treatment plays an overall role in follow-up treatments. Although the patient was seen for follow-up visits at regular intervals, she was always reluctant to undergo another surgery. In March 2017, the western practitioner was surprised at the decreased size of this tumor and wrote "Now on TCM" on her medical records.

In the 17th century, Chen Shi-gong had first made a comprehensive discussion on the names, diagnoses, treatments of Chinese Medicine on BC [11]. He regarded the cause of BC was liver-Qi stagnation due to heavyhearted, spleen-Qi deficiency caused by thinking too much, and liver-fire flame caused by anger or gluttony. He proposed that adjusting Qi and blood of spleen and stomach in the disease process was beneficial for patients. Chen also had a point of view on combining internal treatment and external treatment like hot packs or drug compressing as a strategy for breast cancer therapy [6].

Pure internal and external TCM treatments can both control BC effectively [12]. TCM practitioners regard BC as an easily treatable disease as there are many successful cases not only recorded in the books published in ancient China but also in today's Chinese hospitals as well. However, many doctors and patients are worried about the effectiveness of it nowadays [13].

In the holism concept of TCM, BC is not a local disease but a systemic problem. TCM regards the tumor as a local reflection in the systemic process. And in this concept, human is an organic whole. BC is also an inner disease that reflects on surgical disease. The optimal way to treat BC in TCM is to adjust vital Qi and blood of bodies to eliminate pathogenic factors by taking oral herbs decoction (Table 1).

In this formula, *Juhe*, *Tengligen*, *Wuzhualong*, *Shancigu*, *Shijianchuan Yiyiren*, *Lianzi* and *Dangshen* are used as the basic prescription. They prevent cancer by smoothing liver, nourishing liver, strengthening spleen and dredging collaterals. And the monarch like *Shijianchuan* and *Shancigu* can soft hardening, resolve stagnation and phlegm. The minister like *Jixueteng* and *Wuzhualong* can promote circulation and remove stasis. The minister like *Yiyiren*, *Lianzi*, *Dangshen*, etc can *tonify* spleen.

And in the external decoction (Table 2), except the above herbs, *Jixueteng* invigorates the blood and *Ezhu* breaks blood stasis to dispel stagnation. *Huangyaozi* which is toxicity herb, can clear heat and remove toxicity, sputum eliminate fights. The herb is very safe for external use, *Quanguaiou* can subside a swelling, and they have an anticancer effect in vitro. Though *Huangyaozi* is a slightly toxic herb that may lead to hepatic impairment when the patient takes its water decoction with long-term medication, it is under the safe dosage in this decoction and the administration route is only for external application. And the monarch like *Shijianchuan*, *Shancigu*, *Huangyaozi* and *Quanguaiou* can clear heat, detoxifying, soft hardening and resolve stagnation. The minister like *Jixueteng*, *Ezhu* can promote circulation, remove stasis and expel phlegm.

We also regard BC as a subcutaneous tumor, and so external application is also an effective way to treat BC. The external application (Table2) makes the local tissue to absorb active ingredients of Chinese Medicine as a transdermal way. We call it "Transdermal Drug Delivery System" (TDDS) [14]. And this method also has a better function of killing tumor cells, activating blood, moving Qi and removing stasis for BC is considered as a pathological product caused by Qi stagnation and blood stasis [15,16].

The combination of internal way and external way is also a reflection of the holism concept, which achieves a good effect. After two years of TCM treatment, the tumor became smaller reducing to the size of 0.51*0.88 cm, and the patient's spirit was lifted much more than two years before. The improvement in mental stage in turn proves the holism concept of TCM. In TCM, the treatment not only means curing disease but also improving living quality by strengthening vital-Qi and alleviating pain [17].

Lastly, since the TCM treatment is based on syndrome differentiation, the drug components will not be the same for everybody. Even for the same patient, the TCM practitioner should treat her carefully based on syndrome differentiation after every examination. Although the drug component cannot be copied, the treatment principle of BC and the concept of TCM like holism and syndrome differentiation can be generalized.

Conclusion

Combining the internal & external therapy of TCM can treat BC effectively. The internal way aims at strengthening body resistance, smoothing the liver and strengthening the spleen, while the external way aims at attacking pathogen by absorbing active ingredient through skin. And we are able to generalize the use of internal & external TCM therapy on the treatment of BC by recording this case. Traditional Chinese Medicine treatment of this breast cancer case may have significant implications for this area.

Declarations

Authors' contributions: Dr. Jianping Chen is the patient's doctor who contributes to the procedure of this case. All authors contribute to the development of the literature review, discussions, and writing of the manuscript.

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Ethics approval and consent to participate

The patient was very satisfied with the treatment and she read and revised this article herself. She thinks that CM has improved the quality of her life significantly, and helps to control the breast cancer.

Consent for publication: The patient gave written consent to this case study. And all authors agree to public.

Availability of data and material: All dates and materials are available.

Competing interests: The authors have no competing financial interests.

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