Journal of Clinical and Nursing Research, 2025, Volume 9, Issue 4
http://ojs.bbwpublisher.com/index.php/JCNR
Online ISSN: 2208-3693
Print ISSN: 2208-3685

Observation on the Clinical Effect of Traditional Chinese Medicine Fuzheng Quxie Tea Drinking Package in Treating Cancer of Zhengxu Xielian Type

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Abstract: *Objective*: To explore the clinical efficacy of traditional Chinese medicine Fuzheng Quxie tea drinking package in the treatment of Zhengxu Xielian type cancer. *Methods*: In this study, 50 cases of Zhengxu Xielian type cancer admitted to our hospital from January 2020 to December 2021 were selected. They were divided into a control group (n = 25) and a treatment group (n = 25) according to the random number table method. The control group received conventional symptomatic treatment plus adjuvant therapy for cancer while the treatment group received traditional Chinese medicine Fuzheng Quxie tea drinking package plus conventional symptomatic treatment and adjuvant cancer therapy. Tumor marker indexes, quality of life scores, and fatigue scores before and after treatment were compared and analyzed between the two groups. *Results*: After treatment, the CEA, CA125, and NSE indexes in the treatment group were lower than those in the control group, and the differences were statistically significant ($P < 0.05$). After treatment, the quality of life scores of the treatment group were better, and the data between the two groups were statistically significant ($P < 0.05$). After treatment, the fatigue score of the observation group was significantly lower at 67.56 ± 4.69 compared to 110.59 ± 10.59 in the control group ($t = 18.576$, $P < 0.05$). *Conclusion*: The treatment of Zhengxu Xielian type cancer patients with traditional Chinese medicine Fuzheng Quxie tea drinking package can significantly reduce tumor marker indexes, improve patients' quality of life, and reduce fatigue, which has clinical significance.

Keywords: Traditional Chinese medicine Fuzheng Quxie tea drinking package; Zhengxu Xielian type cancer; Quality of life; Tumor markers

Online publication: April 18, 2025

1. Introduction

Cancer is one of the major threats to human health, and treatment methods include surgery, chemotherapy,

radiotherapy, and comprehensive supportive therapy. Surgery is significantly effective for early-stage cancer, while chemotherapy is often used for post-surgical and advanced-stage patients [1]. However, the drug resistance and side effects of chemotherapy limit its application. Therefore, Chinese and Western medications are often combined to reduce toxic side effects and enhance efficacy. The "Yellow Emperor's Inner Canon" states, "When the righteous Qi is sufficient, external pathogens are difficult to invade; where pathogens invade, the righteous Qi must decline." According to Chinese medicine theory, cancer patients often suffer from spleen deficiency, leading to a lack of Qi and blood generation, which causes Qi and blood deficiency [2]. At the same time, the loss of kidney essence, insufficient nourishment of the essence, and inadequate blood transformation exacerbate the state of Qi and blood deficiency. Patient symptoms include fatigue, weakness, shortness of breath, lack of desire to speak, shortness of breath, loss of appetite, spontaneous sweating, pale and swollen tongue with tooth marks, and deficient pulse, as well as clinical manifestations such as bone marrow suppression, anemia, and decreased white blood cells and platelets. Long-term immunosuppression severely affects patients' quality of life and shortens their survival time [3]. Modern clinical studies have confirmed that the combined application of traditional prescriptions such as Si Jun Zi Tang, Er Xian Tang, Liu Wei Di Huang Tang, and Xue Fu Zhu Yu Tang with chemotherapy drugs can effectively prevent the recurrence and metastasis of colorectal cancer and prolong the survival time of patients with advanced cancer. For patients with advanced cancer who often experience weakened righteous Qi and abundant pathogenic Qi after surgery or radiotherapy and chemotherapy, the Chinese medicine tea drinking package selects *Astragalus*, *Pseudostellaria* Root, *Scutellaria barbata*, and *Salvia chinensis*. This tea drinking package focuses on strengthening the body's resistance and eliminating pathogens as a supplementary treatment. After processing by the pharmacy, it can be used for long-term use by cancer patients as an adjuvant treatment with good results. Therefore, this study selected 50 patients with Zhengxu Xielian type cancer admitted to our hospital from January 2020 to December 2021 and explored the clinical efficacy of traditional Chinese medicine Fuzheng Quxie tea drinking package.

2. Materials and methods

2.1. General information

Fifty patients with Zhengxu Xielian type cancer admitted to our hospital were selected and divided into a control group and a treatment group using the random number method, with 25 patients in each group. The control group consisted of 11 males and 14 females, aged between 36 and 79 years, with an average age of (69.58 ± 4.11) years. The treatment group consisted of 12 males and 13 females, aged between 35 and 80 years, with an average age of (69.41 ± 4.12) years. All participants and their families were informed of the study protocol and signed consent forms. There were no significant differences in the basic characteristics between the two groups ($P > 0.05$). This study was approved by the ethics committee of the hospital.

2.2. Inclusion and exclusion criteria

Inclusion criteria: (1) Patients meet the UICC tumor diagnostic criteria and have been confirmed as having cancer through pathological or cytological examination; (2) Meet the diagnostic criteria of "Zhengxu Xielian Syndrome" in traditional Chinese medicine [4]; (3) Patients have no intellectual disabilities or mental illnesses and have the cognitive ability to evaluate their overall health status; (4) Age range is limited to 18 to 80 years old, and patients must voluntarily participate in the study and sign an informed consent form; (5) The estimated

survival period must exceed 3 months.

Exclusion criteria: (1) Patients with severe cardiovascular and cerebrovascular diseases, liver and kidney dysfunction, and primary diseases of the hematopoietic system; (2) Women who are pregnant or breastfeeding; (3) Patients who are allergic to the medications used in this study.

2.3. Methods

The control group received conventional symptomatic treatment plus adjuvant therapy for cancer, with a treatment course of 15 days, and was observed for two courses.

The treatment group was given traditional Chinese medicine Fuzheng Quxie tea drinking package plus conventional symptomatic treatment and adjuvant cancer therapy. The prescription included: *Astragalus* 9g, *Pseudostellaria* Root 6g, *Scutellaria barbata* 3g, and *Salvia chinensis* 3g. All were prepared by the Pharmaceutical Center of Hui Medical Traditional Chinese Medicine Hospital Affiliated to Ningxia Medical University. Each tea drinking package contained approximately 3g of the original medicinal herbs. One packet was taken at a time, twice a day, brewed with boiling water, and taken warm. The treatment course was 15 days, with a total of two courses.

2.4. Observation indicators

The tumor marker indicators, quality of life scores, and fatigue scores of the two groups of patients before and after treatment were compared and analyzed.

(1) Tumor marker indicators: The tumor marker indicators of the two groups of patients before and after treatment were analyzed and compared, including carcinoembryonic antigen (CEA), cancer antigen 125 (CA125), and neuron-specific enolase (NSE). Venous blood samples of 3 to 4 milliliters were drawn from the patients, followed by serum separation processing. The ZC-32301 detection kit from Shanghai Zhuocai Biotechnology Co., Ltd. was used to perform professional detection for the aforementioned test items.

(2) Quality of life score: The quality of life scores of the two groups of patients before and after treatment were analyzed and compared using the SF-36 scale [5]. The Cronbach's α coefficient of the scale reached 0.845, covering physiology, emotion, spirit, vitality, social function, and overall health. A higher score indicated better nursing intervention effects and better quality of life.

(3) Fatigue score: The fatigue scores of the two groups of patients were analyzed and compared using the Fatigue Assessment Instrument (FAI) [6]. The Cronbach's α coefficient of the scale was 0.886. The scale contained 29 items, using a 1–7 rating system, with a total score ranging from 29 to 203. A higher score indicated a higher degree of fatigue.

2.5. Statistical methods

The data obtained in this study, including normally distributed measurement data (t) and count data (X^2), were analyzed using SPSS 24.0 statistical software. Measurement data were expressed as ($X \pm s$), and count data were expressed as (n, %). If $P < 0.05$, the results were considered statistically significant.

3. Results

3.1. Comparison of tumor marker indicators before and after treatment between the two groups

After treatment, the tumor marker indicators such as CEA, CA125, and NSE in the observation group were better than those in the control group ($P < 0.05$), as shown in **Table 1**.

Table 1. Comparison of tumor marker indicators before and after treatment between the two groups ($\bar{x} \pm s$ false)

Group	*n*	CEA(ng/ml)		CA125(U/ml)		NSE(ng/ml)	
		Before treatment	After treatment	Before treatment	After treatment	Before treatment	After treatment
Control group	25	25.29 ± 3.21	6.44 ± 1.98*	89.49 ± 2.11	64.29 ± 3.21*	29.01 ± 0.21	16.38 ± 1.21*
Treatment group	25	25.23 ± 3.22	3.98 ± 1.57*	89.44 ± 2.10	53.59 ± 2.19*	29.02 ± 0.22	13.55 ± 1.09*
t		0.066	4.868	0.084	13.768	0.164	8.658
p		0.948	< 0.001	0.933	< 0.001	0.870	< 0.001

Note: Compared with before treatment in the same group, *$P < 0.05$

3.2. Comparison of quality of life scores before and after treatment between the two groups

After treatment, the quality of life scores in the observation group were significantly better ($P < 0.05$), as seen **Table 2**.

Table 2. Comparison of quality of life scores before and after treatment between the two groups (, scores)

Group	*n*	Quality of life	
		Before treatment	After treatment
Control group	25	59.39 ± 4.21	72.58 ± 2.19*
Treatment group	25	59.33 ± 4.15	78.51 ± 2.22*
t		0.051	9.508
p		0.960	< 0.001

Note: Compared with before treatment in the same group, *$P < 0.05$

3.3. Comparison of fatigue scores before and after treatment between the two groups

After treatment, the fatigue score of patients in the observation group was significantly lower at 67.56 ± 4.69 compared to 110.59 ± 10.59 in the control group (t = 18.576, $P < 0.05$), as seen in **Table 3**.

Table 3. Comparison of fatigue scores before and after treatment between the two groups (, scores)

Group	*n*	Fatigue score	
		Before treatment	After treatment
Control group	25	142.45 ± 5,12	110.59 ± 10.59*
Treatment group	25	142.39 ± 4.07	67.56 ± 4.69*
t		0.046	18.576
p		0.964	< 0.001

Note: Compared with before treatment in the same group, *$P < 0.05$

4. Discussion

Cancer is a common disease that poses a serious threat to human health. Cancer cells exhibit vigorous metabolic activity, consuming vast resources. Simultaneously, the infiltration and compression effects of cancerous tissues, along with the damage caused by radiotherapy and chemotherapy, as well as the potential toxic side effects of targeted immunotherapy drugs, collectively impact the patient's immune system, leading to impaired or weakened function, and ultimately resulting in a significant reduction in immune function [7]. Cancer is a common disease in China with a high fatality rate. Western medicine treatment methods include surgery, chemotherapy, radiotherapy, targeted therapy, and immunotherapy, but the efficacy in advanced stages is often unsatisfactory.

Traditional Chinese medicine (TCM) can improve patients' symptoms and prolong survival, making the integration of Chinese and Western medicine and multidisciplinary collaboration a trending treatment approach. The causes of malignant tumors are classified into internal factors, external factors, and non-internal-non-external factors. Internal factors primarily involve deficiency of healthy Qi and inadequate defense against external pathogens; external factors include invasion by pathogenic factors such as the six exogenous pathogens, carcinogen-induced pathogenic toxins, and imbalance of Yin and Yang; non-internal-non-external factors encompass inappropriate diet, excessive physical or mental exertion, and decline of healthy Qi due to aging, leading to insufficient generation of Qi and blood, deficiency of healthy Qi, and accumulation of pathogenic toxins [8]. Scholars have pointed out that the imbalance of Qi movement is a fundamental mechanism in tumor formation, involving liver dysfunction, poor blood circulation, spleen dysfunction, resulting in blood stasis, phlegm nodules, and the formation of cancerous masses. Long-term immunosuppression not only reduces patients' quality of life but also shortens their survival. Therefore, improving the quality of life of cancer patients while extending their survival has garnered significant social attention.

The "Yellow Emperor's Inner Canon" discusses the theory of healthy Qi and pathogenic Qi, stating that "when healthy Qi is preserved internally, pathogenic Qi cannot invade," indicating a dynamic balance between healthy Qi and pathogenic Qi within the body. Healthy Qi encompasses defensive Qi, organ and meridian functions, etc. When it is abundant, the body functions normally and has a strong ability to adapt to the external environment. Pathogenic Qi includes disease-causing factors such as phlegm, dampness, toxins, and blood stasis. When healthy Qi is strong, pathogenic Qi is less likely to invade, maintaining a stable physiological balance in the body; damage to healthy Qi and retention of pathogenic Qi can lead to tumor formation, causing imbalance of Yin and Yang, blood stasis, and accumulation of phlegm and dampness. The theory of healthy Qi and pathogenic Qi bears similarities to modern medical immunology theories. Human immune cells exist in a dynamic balance, resembling the balance between healthy Qi and pathogenic Qi. Tumor immunotherapy microenvironment emphasizes holism and multi-target approaches, aligning with the principles of TCM treatment. Immunosuppression is a crucial characteristic of the tumor microenvironment, and tumor cells exploit the negative regulatory mechanisms of the immune system to form an immunosuppressive network [9].

In TCM, the spleen and kidneys are closely related to immune function, with the spleen controlling blood and the kidneys storing essence, which are essential nutrients for immune regulation. The "Jingyue Quanshu" highlights that insufficiency of the spleen and kidneys can lead to the accumulation of diseases. Modern pharmacological research suggests that TCM herbs that tonify healthy Qi and eliminate pathogenic Qi can regulate macrophages, improve the immunosuppressive state of the tumor microenvironment, and thus control cancer cell proliferation. Consequently, the approaches of tonifying healthy Qi and eliminating pathogenic Qi

in tumor treatment, and immune regulation share similar goals, aiming to achieve immune balance and enhance immune function [10].

The TCM herbal tea formula targets the pathogenesis of cancer patients in the middle and late stages after surgery or radiotherapy, and chemotherapy, specifically addressing the imbalance of healthy Qi and pathogenic Qi. It carefully selects herbs such as *Astragalus*, *Pseudostellaria* Root, *Scutellaria barbata*, and *Salvia chinensis*, with the primary focus on tonifying healthy Qi and the secondary focus on eliminating pathogenic Qi. Processed by our hospital's pharmacy, it is intended for long-term adjuvant therapy for patients and has received positive clinical feedback. As a unique formulation of TCM, herbal teas are easy to consume, highly targeted, and effective in preventing and treating diseases, strengthening the body, and promoting longevity. They maintain the remarkable effectiveness of decoctions while avoiding tedious preparation and wastage of medicinal materials. Long-term consumption of herbal teas often yields better results than ready-made Chinese medicines. In this study, after treatment, the CEA, CA125, and NSE indicators in the treatment group were lower than those in the control group, with a statistically significant difference ($P < 0.05$).

Additionally, the quality of life scores in the treatment group were better after treatment, showing a statistically significant difference between the two groups ($P < 0.05$). Furthermore, the fatigue score in the observation group was significantly lower at 67.56 ± 4.69 compared to 110.59 ± 10.59 in the control group ($t = 18.576$, $P < 0.05$). This suggests that the active components of *Astragalus*, including polysaccharides, flavonoids, saponins, amino acids, and trace elements, can promote metabolism, reduce fatigue, stimulate serum and liver protein renewal, induce tumor cell apoptosis by regulating the cell cycle, modulate the tumor microenvironment, inhibit tumor angiogenesis, enhance immune function to reduce inflammatory factor levels, induce tumor cell autophagy, effectively inhibit tumor growth and metastasis, reverse multidrug resistance in chemotherapy, enhance the sensitivity of tumor cells to chemotherapeutic drugs, and reduce toxic side effects of chemotherapy [11].

Pseudostellaria Root is a tonic medicine that nourishes Qi and strengthens the spleen, and its polysaccharide components exhibit anti-inflammatory, hypoglycemic, and antitumor activities. *Scutellaria barbata*, recorded in the "Chinese Pharmacopoeia," possesses the functions of clearing heat, detoxifying, and promoting blood circulation. Pharmacological studies have demonstrated its significant antitumor, anti-inflammatory, and immune-modulating effects [12]. *Scutellaria barbata* inhibits tumor cell growth, and its flavonoid monomers significantly suppress SKOV3 cell proliferation. Scutellarin inhibits MCF-7 cell proliferation, upregulates miRNA-15a and miRNA-16 expression, downregulates CDC25A and AURKA genes, blocks the cell cycle, and inhibits tumorigenesis by reactivating HMOX1 and HSPA1A genes and blocking the NF-κB pathway. Additionally, scutellarin exhibits antitumor activity in colorectal cancer by inhibiting autophagy [13].

Salvia chinensis inhibits the proliferation and metastasis of various tumor cells by regulating signaling pathways and proteins. The combination of these four herbs aligns with the approaches of tonifying healthy Qi, eliminating pathogenic Qi, and immune regulation in tumor treatment, aiming to achieve immune balance. This effectively reduces patients' tumor marker indicators, improves their quality of life, and reduces fatigue scores, thereby demonstrating clinical significance.

5. Conclusion

In summary, the treatment of Zhengxu Xielian type cancer patients with traditional Chinese medicine Fuzheng

Quxie tea drinking packets can significantly reduce tumor markers, improve quality of life, and reduce fatigue, which has clinical significance.

Funding

Dai Yongfu's Observation on the Clinical Effect of Traditional Chinese Medicine Fuzheng Quxie Tea Drinking Package in Treating Cancer of Zhengxu Xielian Type- A Key Scientific Research Project of the Ningxia Health and Family Planning Commission (Project No.: 2019-NW-004).

Disclosure statement

The authors declare no conflict of interest.

References

[1] Wang X, Jiao Y, Liu Y, et al., 2024, Clinical Observation on the Adjuvant Treatment of Chemotherapy-Related Peripheral Neuropathy in Digestive Tract Tumors with Traditional Chinese Medicine Fumigation and Moxibustion. Journal of Practical Traditional Chinese Medicine, 40(11): 2304–2306.

[2] Xu M, Jiang M, Zheng Y, 2024, Clinical Study on the Treatment of Intestinal Obstruction in Advanced Cancer with Enema of Yiqi Yangyin Formula. New Journal of Traditional Chinese Medicine, 56(11): 161–165.

[3] Zhang Y, Wu S, Zheng L, 2022, Clinical Study on the Treatment of Intestinal Obstruction in Patients with Advanced Cancer by Traditional Chinese Medicine Enema Combined with Acupoint Application. Chinese Journal of Health Care Medicine, 24(1): 44–47.

[4] Zheng X, 2002, Guiding Principles for Clinical Research of New Chinese Medicines (Trial). China Medical Science and Technology Press, Beijing: 361–367, 376–380, 385–392.

[5] Li L, Wang H, Shen Y, 2002, Development and Performance Test of the Chinese Version of the SF-36 Health Survey Scale. Chinese Journal of Preventive Medicine, 2002(2): 38–42.

[6] Xiong B, Liu T, Si Y, 2011, Application Concept of Fatigue Rating Scale in Special Service Recuperation. Chinese Journal of Convalescent Medicine, 20(1): 27.

[7] Jiao H, Peng H, 2024, Discussion on the Treatment Principles and Methods of Primary Liver Cancer Based on the Liver's Function of Dispersing and Discharging. Guangming Journal of Chinese Medicine, 39(7): 1322–1325.

[8] Yuan M, Luo W, Donggui W, 2021, Experience in Treating Brain Metastasis of Breast Cancer Based on "Internal Wind Secretly Swirling". Global Traditional Chinese Medicine, 14(4): 714–717.

[9] Yang N, Wu L, Liu X, et al., 2019, Research Progress on the Regulation of Tumor Immune Microenvironment by Traditional Chinese Medicine. Journal of Liaoning University of Traditional Chinese Medicine, 21(8): 164–167.

[10] Liu Y, Wu Y, Liu J, et al., 2021, Discussion on the Pathogenesis and Treatment of Tumors from the Transformation of Healthy Qi and Pathogenic Qi. Journal of Beijing University of Traditional Chinese Medicine, 44(2): 183–187.

[11] Wu X, Deng H, 2022, Theory and Research Progress of Strengthening Healthy Qi to Treat Lung Cancer. Journal of Integrated Traditional Chinese and Western Medicine, 14(1): 45–47.

[12] Pan Y, Yu Y, Wang X, et al., 2020, Tumor-Associated Macrophages in Tumor Immunity. Front Immunol, 11: 583084.

[13] Zhu X, Zheng Y, Liu Z, et al., 2020, Network Pharmacology Analysis of the Synergistic Anticancer Mechanism of

Major Flavonoids in Scutellaria Barbata. Traditional Chinese Drug Research and Clinical Pharmacology, 31(9): 1037–1044.