Clinical Observation on the Improved Short-Term Effects of Anti-Tumor Purified Chinese Medicine Injection Ai-Jing for 138 Cases with Malignant Tumors

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Abstract

The subjects of this study were to observe the improved short-term effects of anti-tumor purified Chinese medicine injection Ai-Jing for 138 cases with malignant tumors. This was a multi-center clinical study, and a total of 138 patients included 96 males and 42 females, with the age from 60 to 76 years. Ai-Jing has obtained the Chinese invention patent since 2008 (ZL991-03528.3). A novel technique acupoint injection method was adopted. Except for lung cancer, patients with other malignant tumors were injected once every other day, 2 ml each time. A course of treatment needs 6 Ai-Jing injections, lung cancer patients need 10 - 20 Ai-Jing injections. At the same time, patients were treated with traditional medicine decoction. Due to the limited number of cases, cure rate, recovery rate and remission rate were calculated as a whole, respectively 18.12%, 44.20% and 32.15%. All the invalid patients were lung cancer, accounting for 16.67% of the patients treated with lung cancer, and the total treatment inefficiency was 6.52%. Conclusion: Chinese Medicine Injection Ai-Jing extracts the effective components of anti-cancer and tumorigenesis, and has the effects of anti-cancer and tumorigenesis, anti-inflammatory and analgesic, and repairing body damage, with small toxic and side effects and low cost.

Keywords

Anti-Tumor Purified Chinese Medicine Injection Ai-Jing, Short-Term Effects, Malignant Tumors
1. Introduction

The effectiveness of Traditional Chinese medicine in the treatment of cancer has been highly valued and widely studied. Substantial randomized trials demonstrated different types/stages of cancer were treated by various TCM modalities, alone or in combination with conventional medicine [1].

The principles of TCM treatment of tumors are nourishing Yin and tonifying the kidney, promoting blood circulation and removing stasis, dispersing stasis and relieving pain, tonifying blood and clearing collaterals, sterilizing and reducing inflammation, warm and heat clearing, purging fire and removing toxic substance, attacking poison and dispersing nodules. Based on these theories, we have invented a new type of anti-cancer Chinese medicine: Ai-Jing which is combined with a variety of rare and effective Traditional Chinese medicines. Previous animal studies have shown safety and efficacy, as well as all cost of a course of treatment, is only 20% of the cost of the traditional same cancer course, which can greatly save the cost of patients. The main purpose of this study is a clinical observation on the improved short-term effects of anti-tumor Chinese Medicine Ai-Jing for 138 cases with Malignant Tumors.

2. Data and Methods

2.1. Chinese Herbal Medicinal Ingredient Prescription of Ai-Jing

Anti-tumor Purified Chinese Medicine Injection Ai-Jing has obtained the Chinese invention patent since 2008 (ZL991-03528.3). The compositions and proportions of Ai-Jing: *Chinese Blister Beetle* (150 g), *Hirudo* (1000 g), *Hydnocarpus Anthelmintica* (1000 g), *Centipede* (300 g), *Snake Slough* (800 g), *Thermopsis Lanceolata* (1000 g), *Bezoar* (250 g), *Coptis Chinensis* (1000 g), *Rangoon Creeper* (1000 g), *Scorpion* (1000 g), *Huangqi (Astragalus)* (1000 g), *Pericarpium Papaveris* (1000 g), *Musk* (250 g), *Fructus Cnidii* (1000 g), *Nux Vomica* (100 g).

2.2. Preparation Process of Injection

These Chinese medicines are processed or crushed after treatment according to the Pharmacopoeia of the People’s Republic of China. Injection preparation is complicated and secretive. The final filtrate was filled, fused and sterilized, and divided into 2 ml ampoule injection.

2.3. General Information of Data

This was a multi-center clinical study, including Yuhong District Cancer Hospital in Shenyang (8 cases), Hongqi District Hospital in Harbin (50 cases), Qiqihar Farm Bureau Hospital (50 cases), and Hubei Hospital (30 cases). The study was approved by the ethics committee and the patient. The subjects were a total of 138 patients, including 96 males and 42 females, with the age from 60 to 76 years.
2.4. Diagnostic Criteria

All the patients were in accordance with the western diagnostic standards, and the patients had pathological reports and relevant diagnostic examination results from grade 3 grade A hospitals, as well as all patients, did not respond to the surgery treatment, radiotherapy or chemotherapy. The standard examination of TCM vision, hearing, cutting and listening was performed on each patient. Patients with intermediate and advanced metastatic tumors were diagnosed with major tumor diseases: gastric carcinoma (6 cases), Lung cancer (54 cases), liver cancer (24 cases), lymphoma (3 cases), Breast cancer (6 cases), Pancreatic cancer (3 cases), laryngocarcinoma (11 cases), Nasopharyngeal carcinoma (2 cases), osteocarcinoma (3 cases), Bladder cancer (1 case), Colorectal cancer (6 cases), Prostate cancer (2 cases), Colon cancer (1 case), Esophageal cancer (7 cases), Tongue cancer (1 case), Maxillary sinus carcinoma (1 case), NDC tumor NDC (1 case), Brain tumor (1 case), renal carcinoma (1 case), The oral cavity (1 case), Vocal tract cancer (1 case), Mediastinal tumor (1 case), Thyroid cancer (1 case).

2.5. Treatment Methods

A novel technique acupoint injection method was adopted. Except for lung cancer, patients with other malignant tumors were injected once every other day, 2 ml each time. A course of treatment needs 6 Ai-Jing injections, lung cancer patients need 10 - 20 Ai-Jing injections. At the same time, patients were treated with traditional medicine decoction. The observation period was from 2 months to 6 months.

3. Results Chinese

3.1. Clinical Short-Term Efficacy Indicators

The short-term efficacy indicators included clinical symptoms, positive signs, length of stay, and morphology of tumor entities. For examples: 1) After a laryngocarcinoma patient was injected Ai-Jing 4 ampoules, neck pain relief, clear pronunciation, throat pain disappeared, blood sputum disappeared, drug withdrawal and discharge. This patient was hospitalized for 11 days. After a month’s reexamination, the swelling quickly shrank and his pronunciation was normal. 2) When some Colorectal cancer patients were treated with the injection Ai-Jing 6 times abdominal pain disappeared, hematochezia disappeared, rectal anal treatment before the index finger could not be inserted, now the tumor has shrunk, become soft, can see branch narrow bowel cavity, hospitalized for 15 days and discharged.

3.2. The Outcomes Were Divided into Four Grades

This multicenter observational clinical study shows that Chinese medicine injection Ai-Jing has significant short-term efficacy against a variety of aggressive tumors.
The outcomes were divided into four grades: 1) The cure means the tumor has disappeared or gone significantly; 2) The improvement means that the condition is basically under control and can be discharged normally; 3) The remission refers to the reduction of clinical symptoms; 4) The ineffective treatment refers to no improvement in any symptoms or indicators.

### 3.3. The Proportion of Cure, Improvement and Remission

Due to the limited number of cases, cure rate, recovery rate and remission rate were calculated as a whole, respectively 18.12%, 44.20% and 32.15%. All the invalid patients were lung cancer, accounting for 16.67% of the patients treated with lung cancer, and the total treatment inefficiency was 6.52% (Table 1).

| diagnosis cases        | cure | improvement | remission | ineffective | treatment |
|------------------------|------|-------------|-----------|-------------|-----------|
| gastric carcinoma      | 6    | 0           | 2         | 4           | 0         |
| Lung cancer            | 54   | 11          | 24        | 10          | 9         |
| liver cancer           | 24   | 3           | 12        | 9           | 0         |
| lymphoma               | 3    | 2           | 0         | 1           | 0         |
| Breast cancer          | 6    | 3           | 2         | 1           | 0         |
| Pancreatic cancer      | 3    | 0           | 0         | 3           | 0         |
| Laryngocarcinoma       | 11   | 2           | 8         | 1           | 0         |
| Nasopharyngeal carcinoma | 2    | 0           | 1         | 1           | 0         |
| Osteosarcoma           | 3    | 0           | 0         | 3           | 0         |
| Bladder cancer         | 1    | 0           | 0         | 1           | 0         |
| Colorectal cancer      | 6    | 0           | 3         | 3           | 0         |
| Prostate cancer        | 2    | 0           | 1         | 1           | 0         |
| Colon cancer           | 1    | 0           | 0         | 1           | 0         |
| Esophageal cancer      | 7    | 1           | 5         | 1           | 0         |
| Tongue cancer          | 1    | 0           | 0         | 1           | 0         |
| Maxillary sinus carcinoma | 1    | 0           | 0         | 1           | 0         |
| NDC tumor NDC          | 1    | 0           | 0         | 1           | 0         |
| Brain tumor            | 1    | 1           | 0         | 0           | 0         |
| renal carcinoma        | 1    | 0           | 1         | 0           | 0         |
| The oral cavity        | 1    | 0           | 1         | 0           | 0         |
| Vocal tract cancer     | 1    | 1           | 0         | 0           | 0         |
| Mediastinal tumor      | 1    | 1           | 0         | 0           | 0         |
| Thyroid cancer         | 1    | 0           | 1         | 0           | 0         |
| Total                  | 138  | 25          | 61        | 43          | 9         |
4. Discussions

This multicenter clinical observational study has shown that Chinese medicine injection Ai-Jing improved short-term effects for a variety of malignancies. As an original Chinese medicine injection, A has potential clinical value. In terms of drug delivery methods, this study was also innovative.

The most effective ingredient is Musk which comes from dry secretions in the sachets of mature male musk deer, musk deer or musk deer. Characteristics of traditional Chinese medicine are spicy taste, with opening, blocking tourets, collaterals, dispersions and anti-inflammatory effects, and can treat stroke, sputum convulsion, evil upset, abdominal pain, injury, and ulcer cancer. Musk contains musk ketone on the virus in the human body and the blood stasis caused by the splitting of virus factors has an inhibitory effect on cancer cells. Musk ketone contains a variety of androgenic derivatives and cholelith alcohol compounds, protein amino acids, fat urea amine salt and so on, and prevents the migration of white blood cells, which is a potential liver Yang medicine. To the central nervous system and has the effect of biphasic regulation, anti-inflammatory antibacterial effect. It has been found that muscone can inhibit the division of virus and virus factors in human body to form blood stasis in cancerous cells. Musk Ketone Induces Neural Stem Cell Proliferation and Differentiation in Cerebral Ischemia via Activation of the PI3K/Akt Signaling Pathway [2]. This research provided strong evidence that native musk and synthetic musk ketone can induce the growing repression and the apoptosis of cancer cells [3].

In classical Chinese medicine prescriptions, Musk and Bezoar work together to produce many effects, while Coptis Chinensis also assists in healing.

Leeches are also being used to treat cancer, also accompanied by Musk and Bezoar [4].

The infant millet shell has the function of the collecting lung, relieving cough, astringent intestine, relieving pain and preventing the spread of cancer cells. Scorpion, Nux Vomica and Centipede present to dredge channels and collaterals. Huangqi (Astragalus) is widely used, particularly for anti-inflammatory and immunostimulatory activities [5].

In conclusion, Chinese Medicine Injection Ai-Jing extracts the effective components of anti-cancer and tumorigenesis, and has the effects of anti-cancer and tumorigenesis, anti-inflammatory and analgesic, and repairing body damage, with small toxic and side effects and low cost.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.
References

[1] Lu, C.-L., Li, X., Zhou, H.-M., et al. (2021) Traditional Chinese Medicine in Cancer Care: An Overview of 5834 Randomized Controlled Trials Published in Chinese. *Integrative Cancer Therapies*, 20, 1-12. [https://doi.org/10.1177/15347354211031650](https://doi.org/10.1177/15347354211031650)

[2] Zhou, Z., Dun, L., Wei, B., Gan, Y., Liao, Z., Lin, X., Lu, J., Liu, G., Xu, H., Lu, C. and An, H. (2020) Musk Ketone Induces Neural Stem Cell Proliferation and Differentiation in Cerebral Ischemia via Activation of the PI3K/Akt Signaling Pathway. *Neuroscience*, 435, 1-9. [https://doi.org/10.1016/j.neuroscience.2020.02.031](https://doi.org/10.1016/j.neuroscience.2020.02.031)

[3] Xu, L. and Cao, Y. (2016) Native Musk and Synthetic Musk Ketone Strongly Induced the Growth Repression and the Apoptosis of Cancer Cells. *BMC Complementary and Alternative Medicine*, 16, Article No. 511. [https://doi.org/10.1186/s12906-016-1493-2](https://doi.org/10.1186/s12906-016-1493-2)

[4] Ji, Y., Li, L. and Wu, M.-H. (2015) Research Progress of Anti-Tumor Mechanism of Leech (Chinese). *Chinese Journal of Traditional Chinese Medicine Information*, 131-133.

[5] Qi, Y., Gao, F., Hou, L. and Wan, C. (2017) Anti-Inflammatory and Immunostimulatory Activities of Astragalosides. *The American Journal of Chinese Medicine*, 45, 1157-1167. [https://doi.org/10.1142/S0192415X1750063X](https://doi.org/10.1142/S0192415X1750063X)