

Chinese Herbal Medicines as an Adjunct Management For Fatigue and Muscle Weakness in Cancer Patients Receiving Chemotherapy

Executive Summary

[Adapted from the report by NOORMAH MOHD DARUS]

Authors:

Noormah Mohd Darus
Mr. Lee Sit Wai

Expert Committee:

Dr. Aidatul Azura Binti Abdul Rani
Dr. Jaspal Kaur
Dr. Liow Sook Mee
Dr. Lim Ren Jye
Madam Wan Najbah Nik Nabil
Dr. Maznah bt Wazir
Dr. Yong Kian Fui
Dr. Suhaila Ismail
Dr Wong Yoke Fui
Mr. Azmi Nor Mohd Farez
Dr Junainah Sabirin

External Reviewer:

Dr Cao Ni Da
Seetha a/p Ramasamy

Disclaimer:

This Health Technology Assessment has been developed from analysis, interpretation and synthesis of scientific research and/or technology assessment conducted by other organizations. It also incorporates, where available, Malaysian data, and information provided by experts to the Ministry of Health Malaysia. While effort has been made to do so, this document may not fully reflect all scientific research available. Additionally, other relevant scientific findings may have been reported since completion of the review.

For further information please contact:

Health Technology Assessment Section (MaHTAS)
Medical Development Division
Ministry of Health Malaysia
Level 4, Block E1, Precinct 1
Government Office Complex
62590 Putrajaya.

Tel: 603 8883 1246

Fax: 603 8883 1230

Available at the following website:

Background

A National Health & Morbidity Survey was conducted in year 2015 to study the prevalence usage of traditional & complementary medicine (T&CM) in Malaysia. From the survey, the overall prevalence of ever used T&CM with consultation was 29.25% (95% CI: 27.66%, 30.89%). The prevalence of T&CM use within the last twelve months was 21.51% (95% CI: 20.11%, 22.98%). T&CM practices are mainly used to maintain wellness. Chinese herbal medicines originated in ancient China and have evolved over thousands of years. The basic concept of traditional Chinese medicines is to help patients achieve balance with the application of essence-qi-spirit theory, *yin-yang* theory and five elements theory. Throughout the years, large number of Chinese herbal medicines was used to treat different health conditions. Studies have been done on the effectiveness of single herbs entity, multiple herbs entity which are used separately or concurrently with mainstream medicines to treat selected diseases.

Currently in Malaysia, Chinese herbal medicines treatments are available at four Ministry of Health hospitals namely National Cancer Institute, Hospital Kepala Batas (Pulau Pinang), Hospital Sultan Ismail (Johor Bahru) and Hospital Wanita & Kanak-kanak Sabah. A guideline was developed to document the practice of using traditional and complementary medicine on herbal therapy as an adjunct treatment for cancer.² In the guideline, it was mentioned that an adjunct is define as a supporting treatment for chemotherapy and radiotherapy. The aim of herbal treatment is usually to improve well being. There are four categories of patients that will be referred for the herbal therapy. i.) Newly diagnosed cancer patients on radiotherapy or chemotherapy or surgery. ii.) Patients completed chemotherapy with recurrence. iii.) Advanced stage cancer on palliative treatment. iv.) Cancer patients who refused medical treatment. As a standard of practice, the guideline outlined that all cancer patients seeking for adjunct treatment at T&CM Unit should be referred by medical oncologist, properly investigated and a precise diagnosis has been made. A qualified herbal practitioner will provide consultation and prescribe herbal treatment. Then, the patients will receive concentrated extract granule (which are prepared and packed in the form of sachet).

With the development of herbal therapy as an adjunct for the cancer patients during or after chemotherapy, there are always issues that need to be discussed and considered regarding the treatment effectiveness.

This Health Technology Assessment (HTA) focuses on the study of Chinese herbal medicines concept in management of the fatigue and muscle weakness in cancer patients receiving chemotherapy. For example, herbs such as ren shen, dang shen huang qi, bai zhu, fu ling, gan cao huang jing and hong zao, have been used to address the fatigue and muscle weakness which are caused by syndrome of Qi.

This HTA was requested by Senior Principal Assistant Director from Traditional and Complementary medicine Division, Ministry of Health to assess the effectiveness of Chinese herbal medicines in the management of fatigue and muscle weakness in cancer patients receiving chemotherapy.

Technical Features

In Traditional and Complementary Medicine (T&CM), herbs are used in combinations to enhance their medical benefit and/or to reduce their side effects. In fact, low dose of multiple pharmacological agents are being administered synergistically. As a branch of T&CM, Chinese herbs or herbal products may have been ingested (as in a tea), inhaled or applied to the body and may have been used singly or in combination with other herbs. A (non-exhaustive) list includes ren shen (ginseng), huang qi (astragalus root), shan yao (dioscorea rhizome), fu ling (poria), common curculigo, gan cao (glycyrrhiza root), bai zhu (atractylodes rhizome), and Chinese jujube. Herbs that have been recently studied through clinical research for chronic fatigue syndrome (CFS) and related symptoms include single herbs such as ren shen (ginseng root), fu ling (poria), gan cao (glycyrrhiza root), dang gui (angelica root), and bai shao (peony root), as well as established formulations.

Many patients have symptoms of general weakness, thirst, and fatigue during or after chemotherapy or radiotherapy. These symptoms are similar to the syndrome of Qi and Yin deficiency in Traditional Chinese medicine theory. Usually for these symptoms, the patients were given Chinese herbal medicines recipes that will benefit the Qi or Yin. In recent decades, cancer patients around the world and especially in China have used a large number of herbal medicines including single herbs, traditional herbal formulations, and Chinese medicine preparations.

Policy Question

Should Chinese herbal medicine be used as an adjunct in the management for fatigue and muscle weakness in cancer patients receiving chemotherapy?

Objective

- a) To assess the efficacy/effectiveness of using Chinese herbal medicines as an adjunct management for fatigue and muscle weakness in cancer patients receiving chemotherapy.
- b) To assess the safety of using Chinese herbal medicines as an adjunct management for fatigue and muscle weakness in cancer patients receiving chemotherapy.
- c) To assess the economic implications of using Chinese herbal medicines as an adjunct management for fatigue and muscle weakness in cancer patients receiving chemotherapy.
- d) To assess the organizational issues related to the use of certain Chinese herbal medicines as an adjunct management for fatigue and muscle weakness in cancer patients receiving chemotherapy.

Methods

Major electronic databases such as Medline, Embase, Pubmed, EBM reviews, HTA databases, Cochrane Central Register of Controlled Trials and Cochrane Database of Systematic Review, Database of Abstracts of Reviews of Effects (DARE), NHS Economic Evaluation Database (NHS EED) and Health Technology Assessment (HTA) databases were searched until November 2016. Studies were reviewed separately according to the research questions. Retrieved records were screened for relevance. The search was limited to publication year from 2000-2016. Additional articles were identified by reviewing the bibliographies of retrieved articles and hand searching of journals. Potentially relevant papers were retrieved and independently checked against predefined criteria for inclusion by two reviewers. Included reviews and primary papers were critically appraised using the Critical Appraisal Skills Programme (CASP), evidence was graded based on guidelines from U.S./Canadian Preventive Services Task Force, and data were extracted and narratively presented.

Result and conclusion

Six studies were included in this review: one systematic review, four randomized controlled trial (RCT's), and one pre and post interventional study. All the six studies reported on efficacy/effectiveness, while only five of the six studies reported on safety/side effects. We found two chinese papers with abstracts in English and full text in Chinese. However due to lack of funds, it was not translated by a professional translator (expensive payment fee required). The article on Systematic review by Wu X et al, had most of the articles included in the study from the Chinese database (Wan Fang Digital Journals, Chinese Biomedical Databases, and Taiwan Periodical Literature Databases). All papers were from China and studies were done on the chinese population.

a) Management of fatigue

There was limited fair to low level of evidence to suggest that Chinese herbal medicines was effective in improving the QoL such as fatigue symptoms severity when used as an adjunct management for fatigue in cancer patients receiving chemotherapy. Most of the side effects of the Chinese herbal medicine in these studies were mild such as agitation, anxiety, insomnia, nausea, and vomiting. There were no morbidity and severe adverse events reported. There was no retrievable evidence on cost-effectiveness. However, the retail price of certain Chinese herbal medicine in Malaysia ranges from RM 26 to RM 151 per 100 gm. However, small number of subjects limited most of the studies and most studies did not report on allocation concealment as well as blinding. The studies included involved the use of many different types of Chinese herbal medicines and many different types of assessment tools were used to measure the efficacy / effectiveness of the Chinese herbal medicines for the management of fatigue in cancer patients receiving chemotherapy.

b) Management of muscle weakness

There was no retrievable evidence on effectiveness, safety and cost effective of Chinese herbal medicine as an adjunct management of muscle weakness for cancer patients receiving chemotherapy.

Recommendations

Based on the above review, most of the studies suggested that Chinese herbal medicines such as Yi-fei-bai-du decoction, Fei-liu-ping extract, Hai-shen-su, Fu-zheng-jie-du decoction Kang-la-te injection, Shen-qi-fu-zheng injection, compound ku-shen injection, Kang-ai injection, Zi-jin-long tablet, Xiao-ai-ping injection, Shen-fu injection, American ginseng, Ren Shen Yangrong Tang (RSYRT), Bojungikki-tang and Panax Ginseng may have potential benefit for the management of fatigue in cancer patients receiving chemotherapy. However, the evidence retrieved was limited and had biases. More rigorous and well-designed clinical trials investigating the effects of Chinese herbs on relieving the fatigue and muscle weakness effect in cancer patients receiving chemotherapy is warranted. Hence, Chinese herbal medicines may be used for the management of fatigue in cancer patients receiving chemotherapy in a research environment by a certified and registered practitioner.

