

Efficacy of Complementary and Alternative Therapies in Cancer Patients: A Systematic Review

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ABSTRACT

Objective: Complementary and alternative therapies (CATs) are common practices in cancer treatments. This study aims to investigate the most common types of CATs amongst cancer patients and distinguish the most effective practices amongst cancer patients.

Materials and Methods: A comprehensive systematic review was conducted on databases encompass the Science Direct, Cochrane Library, PubMed, EMBASE, Chinese Biomedical Literature Database by following the strategy of Cochrane Collaborative Group. The analysis conducted to investigate efficacy of different complementary and alternative therapies such as acupuncture, herbal medicine, Reiki, and Yoga.

Results and Analysis: The analysis of the different articles from various databases showed that some of the CATs were amongst the most effective methods for cancer patient treatment. The results showed that the herbal medicine was one of the most effective intervention methods and acupuncture was one of the most effective non-interventional methods.

Conclusion: The analysis showed that application of complementary and alternative therapies is effective to improve the symptoms such as pain and depression in patients with cancers in comparison with the conventional therapy. It is recommended that the results to be confirmed with a higher number of samples.

Introduction

Generally, complementary therapy and alternative medicine (CAM) is applied to cancer patients to alleviate chemotherapy adverse effects and to improve quality of life of these types of patients [1]. CAM treatments have been common amongst cancer patients over years. The use of CAM treatments for cancer patients is varied in the range of 30% to 90% in different countries. In Europe, this varies from up to 86%, however, many of these studies are limited to only breast cancer patients. Majority of people who are suffering from cancer believe that using CAM treatments ease the diseases symptoms and improve their health [2-4]. In General, more than 60% cancer survivors used spiritual practice, around 44% used relaxation method, around 42% used spiritual healing, around 40% used nutritional supplements/vitamins, around 15%

meditation, around 11% used religious counselling, around 11% used massage, and around 10% used support group to treat this disease [5]. The National Centre for Complementary and Integrative Health has categorized CAM in three groups: Mind practice (such as meditation, yoga, massage therapy...), natural products (herbal medicine, probiotics...) and other complementary therapies (homeopathy, Chinese traditional medicine).

The CAM treatments provide better emotional and psychological support in cancer treatment process [6]. The cancer patients are introduced to various types of CAMs through their relatives and friends, they express using CAMs will reduce pain, enhance body immunity system, and encourage them to cope with the diseases [7]. Some patients believed that CAMs are more effective than

conventional treatments [8]. This study aims to investigate efficacy of the CAMs treatments on cancer patients by performing a comprehensive systematic review study.

Materials and Methods

A comprehensive systematic review conducted to investigate efficacy of the complementary and alternative medicine therapies (CAMs) on cancer patients. The systematic review followed in this study already described in study performed by the author [9]. Therefore, systematic review was conducted on databases encompass the Science Direct, Cochrane Library, PubMed, EMBASE, Chinese Biomedical Literature Database by following the strategy

of Cochrane Collaborative Group. The analysis conducted to investigate efficacy of different complementary and alternative therapies such as acupuncture, herbal medicine, Reiki, and Yoga. (Figure 1) shows a diagram of the most important methods of CAMs in treatment of the cancer patients.

CAM Treatments for Cancer Patients

This section investigates some of the most common methods that are known as complementary and alternative medicine treatments. This is worth to mention that not all methods mentioned in the (Figure 1) investigated in this section as some of them still need more interrogation in the literature.

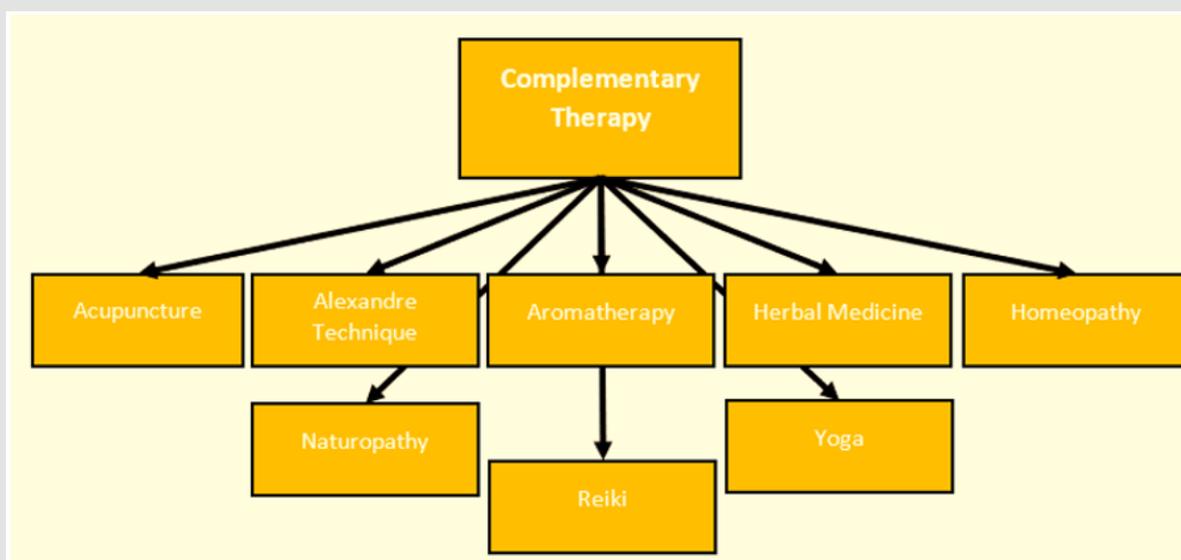


Figure 1: Some of the most popular types of complementary therapy methods.

Acupuncture

Acupuncture is one of the oldest traditional Chinese medicine which had been used recently worldwide by chronic diseases populations [10], however, one study showed that Acupuncture was not sufficiently effective without drug in cancer pain management while it increases pain remission rate when medicine was used [11]. Another study indicated that abdominal acupuncture can be effective in cancer relate-anorexia [12]. The other study showed that the acupuncture therapy improved the condition of breast cancer-related lymphedema in 95% of studied population [13].

Aromatherapy

One study has shown that the aromatherapy is able to enhance psychological and physical complications of more than 3000 cancer patients from 1995 to 2019 [14]. It has also indicated that this method improved sleep quality by smelling Rosa damascena essential oil in patients [15]. Another study showed that aromatherapy alleviated anxiety in stem cell infusion [16]. Also, another study showed that chemotherapy-induced nausea was reduced after Ginger aromatherapy but there was no significant effect on vomiting [17].

Herbal Medicine

The Medicinal plants are easy to use as herbal medicine which are provided mostly by traditional practitioners and previous successful experience encourage them to use along with chemotherapy [18]. A study about Chinese herbal medicine (CHM) showed that the number of survivals in gastric cancer has improved by using herbal medicine [19]. The traditional herbal medicine also eases peripheral neuropathy and improved immune functions in vitro and in vivo [18]. Also, one study showed that the Oral mucositis severity decreased after using Mille folium along routine solutions [20].

Homeopathy

The homeopathic treatments action mechanism considered unclear although it is thought to trigger self-regulatory responses [21]. The other study indicated that quality of life in patients receiving homeopathic remedies are as well as patients undergoing conventional treatment [22]. Another study indicated that patients receiving homeopathy treatment along with other remedies are supposed to live longer than the patients who are under conventional chemotherapy [23].

Reflexology

The reflexology action mechanisms are probably based on energy channels theory, lactic acid theory, and neuromatrix pain theory [24]. A study indicated that self-foot reflexology can decrease peripheral neuropathy during chemotherapy, even though it is difficult to explain how it works [25,26]. This therapy is also used as palliative care as long as it is non-invasive and relaxing for end-stage cancer patients [27]. There are also some unwanted effects such as fatigue, swelling and urination frequency at the application site [24].

Result and Discussion

Many cancer patients are interested in relaxation as they can relieve physiological and psychological tension during receiving treatments. Herbal medicine popularity is mostly due to alleviation of chemotherapy adverse effects. Other CAM method types are not widely used and known by patients. The main reason of using any kind of CAM for cancer patients is mostly to improve quality of life and palliative care and ease the probable effects which can impact the lives of cancer patients. The modern chemotherapies are primary treatments for many cancers. CAMs would be applied along with conventional remedies unless the patients refuse. However, CAM is not commonly used as worldwide, and many patients are not introduced to other treatments. Few Complementary therapies protocols have been practiced and recommended to hospitals for chemotherapy applicants, in order to diminish side effects.

Conclusion

A comprehensive systematic review conducted to investigate efficacy of the complementary and alternative medicines (CAMs) on cancer patients. Various CAMs treatments were investigated, and it was revealed that the herbal therapy is a common and amongst the most effective methods to improve quality of lives of the cancer patients. Also, it was revealed that the acupuncture is amongst the most common types of the non-interventional CAM treatment methods. Some CAM methods still would require more investigations and studies in order to judge their performance on cancer patients. CAM treatments have been recognized as one part of helpful cancer treatments. It also supports patients physically and mentally to cope with diseases and ease the pain. CAM types usage is varied based on the religion, age, culture, and other effective factors among countries. Despite the significant role of alternative medicine, some patients are acquainted with other treatments and few of them apply these remedies to ease the situation. Health care providers play a key role to introduce CAMs categories to end stage patients as one of the choices of palliative care.

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