

Role of Acupuncture in Cancer / Window Cancer Research

Rahul Hajare

Department of Quality Assurance, Rajgad Dnyanpeeth's College of Pharmacy Bhor, India

*Corresponding author

Dr. Rahul Hajare, Department of Quality Assurance, Rajgad Dnyanpeeth's College of Pharmacy Bhor, As a Former Post-Doctoral Fellow 2013 (7th Batch) Department of Health Research, Indian Council of Medical Research New Delhi, Tel: +919765704048; 02113-222841; Email: rahulhajare@rediffmail.com

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Abstract

Background: *Acupuncture in cancer care: with intermediate outcomes among really feasible and attractive therapeutic option. Complementary and alternative medicine (CAM) is commonly used by cancer patients (pts). Recent randomised controlled trials showed that acupuncture is safe, effective and feasible for the management of cancer-related fatigue and other adverse events of anti-neoplastic therapies.*

Materials and Methods: *Since November 2012 we have been offering a supportive care program of 20 minutes weekly session of acupuncture for the management of chemotherapy-induced nausea/vomiting, hot flashes, cancer-related fatigue, xerostomia. A brochure regarding indications and techniques was offered to all cancer patients who received a systemic antineoplastic therapy (chemotherapy, target therapy, endocrine treatment) and/or radiation therapy.*

Results: *More than 500 pts affected by solid tumours or lymphoma were treated in our Operative Unit during the period of the project. None of them preferred to receive acupuncture in addition to the specific pharmacological treatment.*

Conclusions: *Cancer patients of the district of Bellary, Karnataka did not demonstrate any interest in acupuncture for the management of side effects of anti-neoplastic treatments.*

Introduction

Adverse event of Anti-Neoplastic therapy has known. Complementary and alternative medicine (CAM) is commonly used by patients affected by cancer, principally to manage the adverse events of antineoplastic therapy and improve quality of life [1]. According to the World Health Organization (WHO) acupuncture is used in almost 80 countries and it has been shown to be minimally invasive, with few adverse events [2]. Most of the adverse events are likely result of a lack of education on the part of the practitioner. It involves the placement of solid, unmedicated and sterile needles into specific points on the body [2]. These points are located at sites with high density of neurovascular structures. The mechanisms of action are not well understood, since the acupuncture meridians and their points, as described by the Traditional Chinese Medicine (TCM), cannot be directly observed. Nevertheless, in pain treatment needling activates opioid system and autonomic and central nervous system and affects cerebrospinal fluid levels of endorphins, while for nausea, fatigue, hot flashes, xerostomia etc, the mechanism of action may be quite different [2]. We know that acupuncture has an effect on T lymphocytes, inflammatory cytokines, and recent results suggest the cytokines and tumour necrosis factor alpha signalling are contributing factors in the development of fatigue [3]. A National Institute of Health consensus panel reported promising results regarding efficacy of acupuncture in adult postoperative and chemotherapy induced nausea and vomiting, and postoperative

dental pain [4]. Since then many major cancer centres in the United States and European Union offer acupuncture services, recently, large randomised controlled trials suggested that acupuncture is an effective, acceptable, feasible, and safe intervention for managing the cancer-related fatigue and improving the patients' quality of life [3, 5]. In the attempt to ameliorate the quality of care and increase the therapeutic options in patients affected by cancer and receiving an antineoplastic and or radiation therapy, we planned a prospective study, with acupuncture for the management of chemotherapy-induced nausea/vomiting, hot flashes, fatigue, xerostomia.

Materials and Methods

Since November 2017 a brochure regarding indications, techniques, and our project of supportive care with acupuncture was offered to all cancer patients who received a systemic antineoplastic therapy (chemotherapy, target therapy, endocrine treatment) and/or radiation therapy. The indications for complementary therapy with acupuncture were fatigue, chemotherapy-induced nausea/vomiting, hot flashes, xerostomia. We did not include cancer pain because an extended project, according to Regional Recommendations for treatment of chronic cancer pain, with daily utilise of NRS, Cleeland's Pain Management Index (PMI), and monitoring of annual consumption of opioids, was ongoing. We planned six weekly sessions of 20-minutes acupuncture performed by a medical oncologist and an anaesthesiologist, both graduated in Traditional Chinese Medicine

and Acupuncture after a training of four years. Treatment was free of charge for all patients. The use of a questionnaire to evaluate the patient's satisfaction was planned.

Results

In 2018 more than 500 patients affected by cancer were treated in our Operative Unit, receiving chemotherapy, target therapy, endocrine treatment, and radiation treatment. The majority of the patients were affected by breast cancer, colorectal, lung and prostatic cancer. All of them received the brochure of complementary acupuncture project and patients who refereed adverse events were informed by medical oncologists and nurses about the opportunity to receive also acupuncture. Until December 2013 none of the patients preferred to receive acupuncture in addition to the specific pharmacological treatment.

Conclusion

Complementary and alternative medicine (CAM) has been defined as "any diagnosis, treatment or prevention that complements mainstream medicine by contributing to a common whole, by satisfying a demand not met by orthodoxy or by diversifying the conceptual framework of medicine" [6]. The bulk of literature regards patients from the United States, and little is known about the use of CAM in Europe. A survey of Molassiotis on the use of CAM in 12 European countries, Israel and Turkey, providing a total of 965 cancer patients, revealed that 73% out of 52 Italian cancer patients had used CAM, well above the European average of 35% [7]. A later survey on 132 Tuscan cancer patients reported that the incidence of CAM use was 17%, and only 13% of them used acupuncture, while the most widely used forms were herbal medicine and homoeopathy [8]. Use is higher in the urban areas, among women, breast cancer patients, and persons with a higher education [7, 8]. In Norway 20% of cancer patients used CAM to relieve their symptoms, and more than 40% of all cancer patients stated that they would like CAM to be an option in National Health Service hospitals [9]. Although, general patients who tried and who had not tried acupuncture felt that general practitioner should not interfere in the cancer patient's wish to try acupuncture [10]. The more frequent reasons reported in literature of why patients do not use CAM are that they were happy with with conventional treatment received, that they never thought of CAM, or that they did not believe in CAM [7]. Another considerable barrier could be the cost, when CAM is provided in the private sector. Especially in countries such as Germany where some CAM treatments or parts thereof are reimbursed, variable reimbursement induce patients to choose predominantly reimbursable CAM therapies [11]. However the cost was not confirmed as a barrier to CAM in European-wide studies [7, 11]. Regarding oncology professionals' knowledge and attitude to prescribe or recommend CAM, major differences by genders as well as oncology health profession in views about the various CAM methods are demonstrated. In Norway only 4% of medical oncologists described their reaction to alternative medicine (healing by hand or prayer, homoeopathy and Iscador) as positive, compared to nurses (33%), radiologists (32%), and administrative staff (55%). Females showed a more positive view compared to males (33 vs 14%), and most participants described a positive attitude to complementary, classified as acupuncture, meditation, reflexology, massage, aromatherapy, rather than alternative medicine. In our centre we designed a supportive care project to treat cancer-related fatigue, chemotherapy-induced nausea/vomiting, xerostomia, and hot flashes. The main source

for medical information of cancer patients living in the district of Bellary, Karnataka, India, is health care professionals, friends and family, rather than social networks. The treatment was free-of-charge, carried out by a medical oncologist and an anaesthesiologist, both graduated in Traditional Chinese Medicine and Acupuncture after a post-graduate training of four years. A brochure relative to indications, techniques of acupuncture as supportive care was offered to all cancer patients who received a systemic antineoplastic therapy (chemotherapy, target therapy, endocrine treatment) and/or radiation therapy. The patients who presented adverse events were invited to try acupuncture in addition to specific pharmacological treatments by nurses and physicians. Nevertheless in almost one year zero out of more than 500 cancer patients accepted to receive a complementary therapy with acupuncture. Moreover, none of the patients or family members asked for additional information. None of the patients with chronic cancer pain requested acupuncture. Even if we did not perform a specific analysis, the prevalence in the use of CAM, mainly homoeopathy, among our cancer patients, is minimal and with extremely low long-term compliance. Acupuncture is quite diffused in general patients mainly to treat benign muscular-skeletal pain and migraine. Many cancer centres in Italy support the use of complementary medicine and acupuncture for the management of adverse events in the attempt to improve the patients' quality of life. Our project to manage chemotherapy-induced nausea/vomiting, cancer-related fatigue, xerostomia, hot flashes, failed because none of the patients felt reasonable convinced to try acupuncture. We believe that a different way of communication is needed, considering the evidences of activity and efficacy of acupuncture to manage cancer-related fatigue and other adverse events of antineoplastic treatments. Moreover, the extremely low cost of acupuncture, comparing to pharmaceutical treatment, should be a motivation for the health agencies to promote this complementary therapy.

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