

Zohar Yagil

SUJOK THERAPY FOR THE TREATMENT OF FATIGUE AND WEAKNESS AMONG ONCOLOGIC PATIENTS

ABSTRACT. Cancer is a major public health problem worldwide and is the second leading cause of death globally. It is generally accepted that an integrated approach to the treatment of cancer, including pain relief and palliative care, can reduce mortality and improve outcomes and quality of life of cancer patients.

The present study focuses on Sujok therapy, its potential in minimizing oncologic treatment-induced side effects and improving quality of life in patients.

In summary, the present study illustrates the promising effects of Sujok therapy in supporting existing oncologic treatments for palliative care. Although there are some expected natural variances in patient responses to Sujok therapy stimulation, in addition to issues of compliance in conducting self-treatment at home, overall, it seems that Sujok can be a useful therapeutic tool for supporting the oncologic patients.

KEYWORDS: Sujok Therapy. Oncological Treatments. Quality of Life. Palliative care.

Introduction

The cancer burden continues to grow globally, exerting tremendous physical, emotional and financial strain on individuals, families, communities and health systems.^{1,2,3} Many health systems in low- and middle-income countries are least prepared to manage this burden, and large numbers of cancer

patients globally do not have access to timely quality diagnosis and treatment. In countries where health systems are strong, survival rates of many types of cancers are improving thanks to accessible early detection, quality treatment and palliative care.

Palliative care is a treatment to relieve, rather than cure, symptoms caused by cancer and improve the quality of life of patients and their families. Palliative care can help people live more comfortably. It is an urgent humanitarian need for people worldwide with cancer and other chronic fatal diseases and particularly needed in places with a high proportion of patients in advanced stages of cancer where there is little chance of cure.

Relief from physical, psychosocial, and spiritual problems can be achieved in over 90% of advanced cancer patients through palliative care⁴.

Sujok Therapy (Su-Jok) is a form of complementary medicine originated in South Korea in 1987 by the scientist and scholar Prof. Park Jae Woo⁵⁻⁸

In Sujok therapy, the practitioner stimulates points that are located on the hand and foot in order activate auto-regulatory mechanisms and restore the body to a healthy state.⁹

The stimulation of the curative points can be performed by non-penetrative approaches such as massage, color therapy, moxibustion, plant seeds¹⁰, magnets, soft laser, aromatic oils, gem stones as well as needles and other devices.

Clinical studies and case reports regarding the efficiency and efficacy of Sujok therapy were previously published for the treatment of various conditions from chronic pain^{11-13,14,13}, pain due to disc herniation¹⁵⁻¹⁶ and migraines¹⁷⁻¹⁹, to complexed conditions such as asthma²⁰⁻²¹, and even rehabilitation from stroke²² and comatose conditions^{23, 24}.

Sujok therapy is easy to administer, cost efficient and was originally developed as a system for the use of individuals for self-treatment.^{25,9}

We decided to investigate the possible use of Sujok therapy to support oncologic patients as a complementary method of palliative care. This study was focused on quality-of-life-related outcomes and reducing the symptoms of fatigue and weakness that are common side effects of the oncological treatment.²⁶

Materials and Methods

Study Design

The study was designed as a descriptive survey, with the goal of evaluating the possible effect of Sujok therapy on side effects of oncologic treatments. The study was conducted at the Israeli Chapter of the International Sujok Association (ISA-Israel), between 2015 and 2019.

Inclusion Criteria

The study questionnaires were given to oncologic patients that approached ISA-Israel for Sujok treatments in order to treat symptoms caused by the oncologic treatments.

The patient group included 258 cancer patients in various stages of the disease aged between 32 and 78.

Questionnaires were filled up by the patients before the first treatment and after 12 Sujok treatments.

Sujok treatments included a procedure once or twice a week as well as instructions for self-treatment by stimulation of correspondence points at home.

Questionnaire Design

For the design of the study tool a PubMed-Medline search was conducted, using the keywords: “Cancer treatment side effects”, “Oncologic treatment side effects”, “Cancer patients quality of life”.

A specific questionnaire was designed based on long term and latent side effects of the oncologic treatments. Long-term effects are side effects that arise during the treatment and may persist over time, whereas latent effects may not appear until many years after treatment completion.²⁶

In order to evaluate the patients’ well-being, factors from the WHO Disability Assessment Schedule 2.0²⁷ were included in the questionnaire.

Statistical Analysis

The findings from the data were compiled in a Microsoft Excel table (Windows 2010) and presented as mean of the scoring values. The qualitative analysis of patients’ narratives, appearing as 2 open-ended questions and comments in the “others” option of the multiple-choice questions, were analyzed using a content analysis method.²⁸

Ethics

All respondents in this study participated on a purely voluntary basis and provided informed consent following oral as well as written explanation of the research methodology and goals.

All patients were required to pay for the treatments themselves.

The research design and study were conducted according to the ICH-GCP and the IEC rules and regulations.

Results

Complaints of common side effects following oncologic treatments

During 2015-2019, 258 oncologic patients who visited the ISA Israel clinic agreed to participate voluntarily in our survey. Gender, age, type and duration of disease were collected as well as the medical procedure and the complaints of oncologic treatment side effects.

As shown in figure 1, the most common side effects which were reported were fatigue (80% of the patients) as well as depression (80% of the patients) and weakness (63% of the patients), sleep disorders (60% of the patients) and

general pain (45% of the patients). Percentage of patients who reported on the various symptoms are presented in Figure 1.

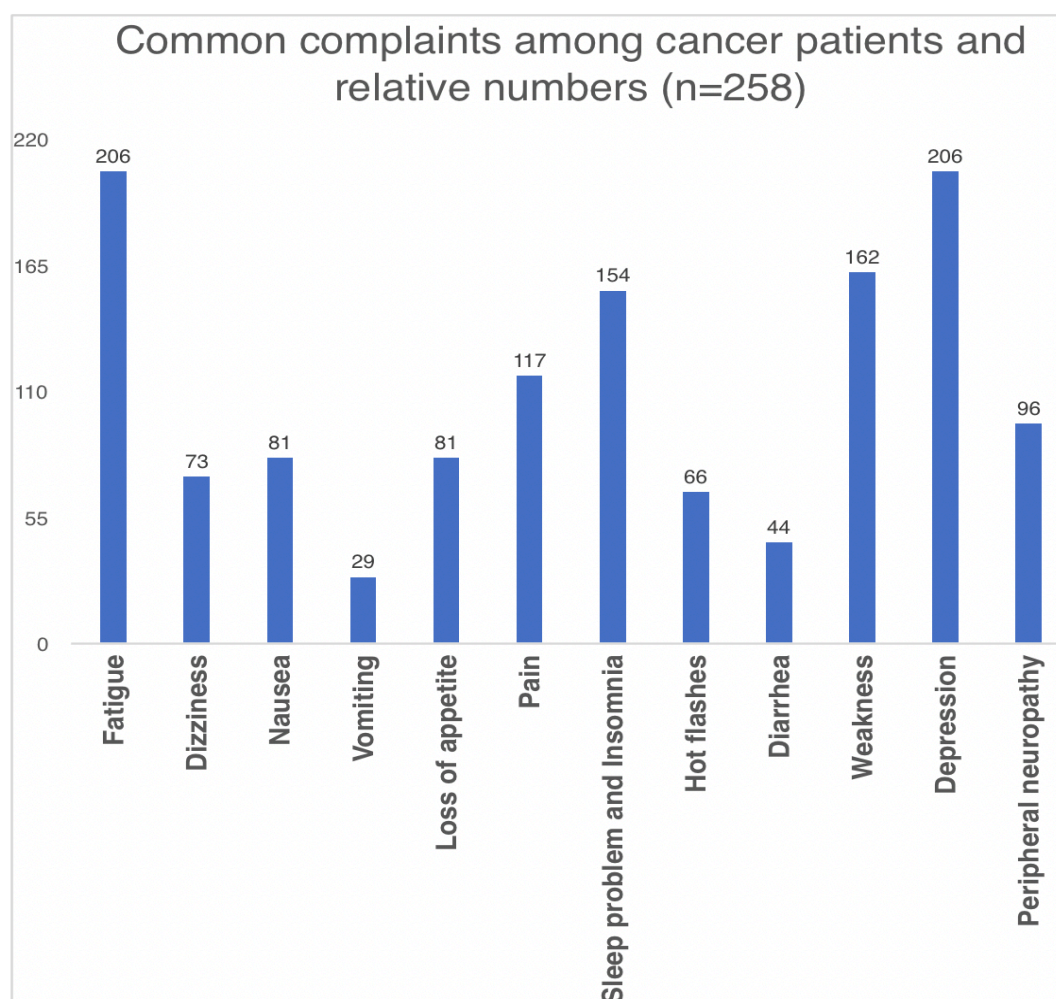


Figure 1: Common complaints of oncologic patients regarding side effects of the medical treatment

258 patients participated in this study. All patients were interviewed in the beginning of the course of Sujok treatments and asked to report the side effects that they suffered from. The numbers of the patients reporting different side effects such as depression, weakness, diarrhoea and pain among others are shown in the table.

Effect of Sujok therapy on Fatigue

Fatigue is the most common symptom experienced by oncologic patients, with prevalence rates ranging from 15-30% to 70-99%.^{29,30} Cancer-related fatigue may remain for years after treatment. Mechanisms for persistent fatigue among cancer survivors are not yet fully understood; several pathways, including chronic inflammation, autonomic imbalance, hypothalamic-pituitary-adrenal-axis dysfunction, and mitochondrial damage, may cause disruption of normal neuronal function and result in fatigue.³¹ Physical activity has been shown to improve fatigue symptoms.³² In order to evaluate the effect of Sujok therapy among oncologic patients, the feedback of 206 patients was collected before and after Sujok treatments. General improvement of fatigue was evaluated in the scale of 0-10 where 10 is the highest level of fatigue that stands for exhaustion and inability to perform daily tasks and 0 is no fatigue at all.

As shown in figure 2, a considerable decrease in the level of fatigue was reported following Sujok treatment. The mean level of fatigue before treatment was 7.59 ± 2.18 , which was reduced to 3.11 ± 1.4 after 12 Sujok treatments.

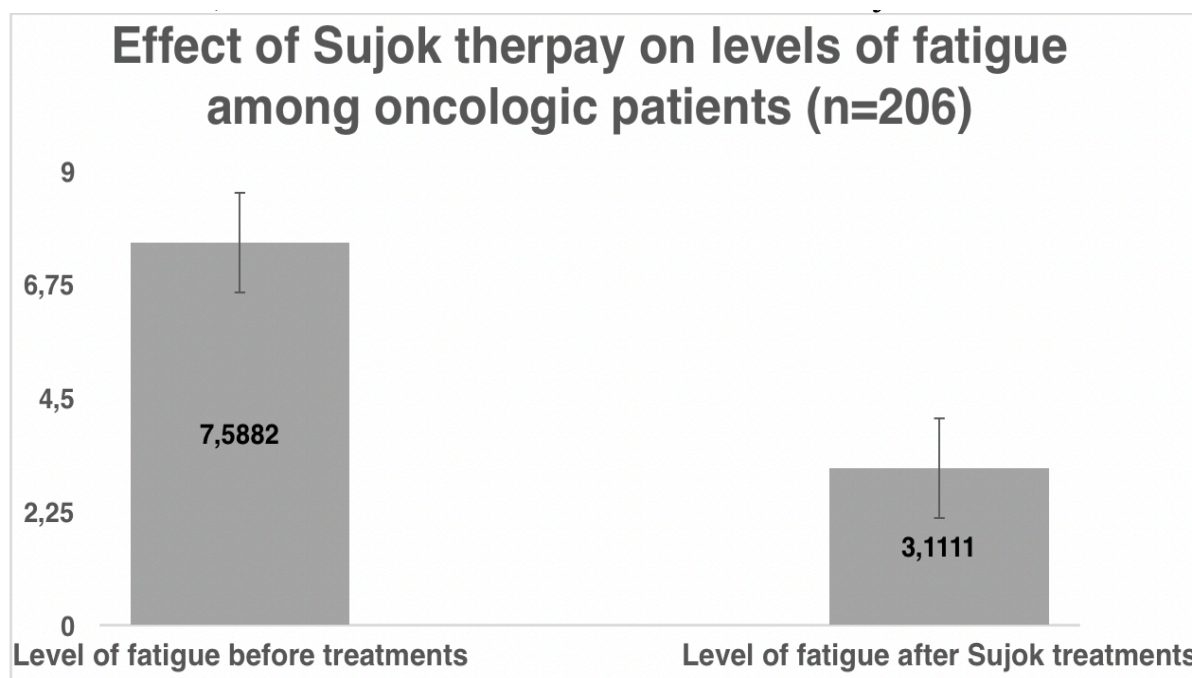


Figure 2: Effect of Sujok therapy on the levels of fatigue among oncologic patients.

The feedback of 206 patients was collected before and after Sujok treatments. General improvement of fatigue was evaluated in the scale of 0-10 when 10 is the highest level of fatigue that stands for exhaustion and inability to perform daily tasks and 0 is no fatigue at all. Data presented is the mean of fatigue levels before Sujok treatments (7.59 ± 2.18) compared to the mean levels of fatigue reported by the patients after 12 Sujok treatments (3.11 ± 1.4).

Effect of Sujok therapy on the level of weakness

Cancer cachexia is a complex metabolic condition characterized by skeletal muscle wasting (with or without fat loss), anemia, reduced caloric intake, and altered immune function, which contributes to increased disability, fatigue, diminished quality of life (QoL), and reduced survival.³³

In order to evaluate the effect of Sujok therapy on general reports of weakness, Feedback from 162 patients was collected before and after 12 Sujok treatments.

As shown in figure 3, a considerable decrease in the level of fatigue among cancer patients was reported following 12 Sujok treatments.

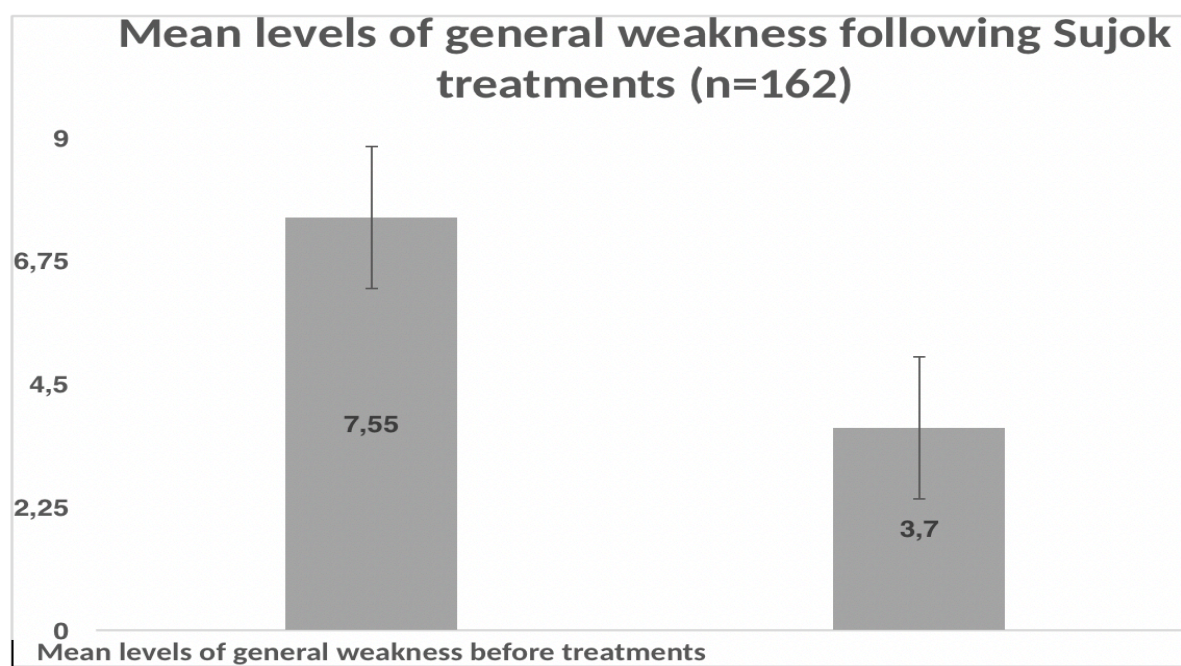


Figure 3: Effect of Sujok therapy on the levels of general weakness among oncologic patients.

The feedback of 162 patients was collected before and after Sujok treatments. General improvement of weakness was evaluated in the scale of 0-10 when 10 is the highest level of weakness that stands for exhaustion and inability to perform daily tasks and 0 is normal strength and ability to perform daily tasks.

The data represent the mean of weakness levels before Sujok treatments (7.55 ± 1.31) compared to the mean levels of weakness reported by the patients after 12 Sujok treatments (2.9 ± 1.81).

General satisfaction for the Sujok treatments

Due to the scope of this article, that focuses on the possibility to use Sujok therapy as palliative care for oncologic patients and due to heterogeneity of our study group, one of the most important qualitative question concerns the patients' satisfaction on the basis of the results achieved by the Sujok treatment.

Generally, patients approached our clinic voluntarily in order to relieve the severity of their symptoms. As shown in Figure 4, most of the patients were satisfied with the outcome of the Sujok treatments suggesting that Sujok can be a beneficial form to treat the fatigue and weakness induced by the oncologic treatments.

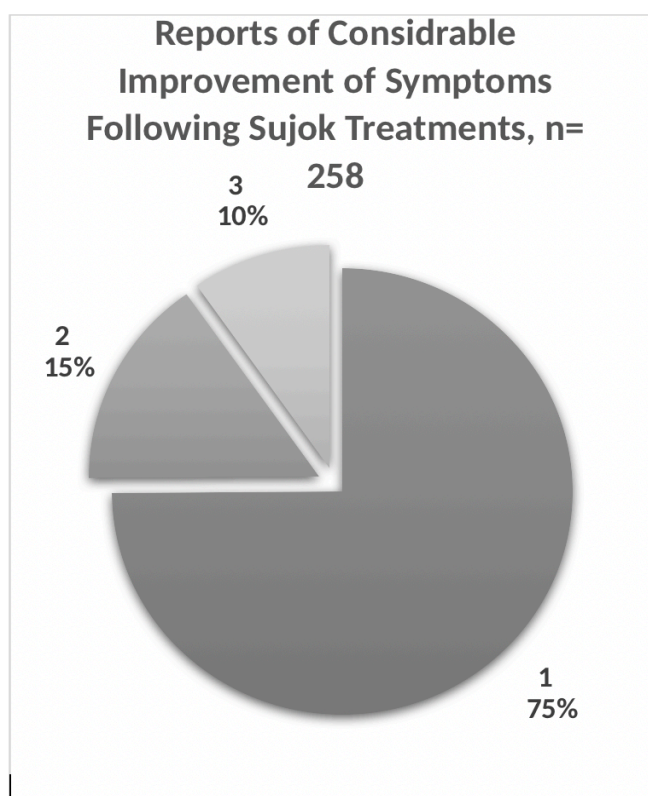


Figure 4: General Satisfaction of the Sujok treatment

258 cancer patients were interviewed as to their general satisfaction of the outcome of the Sujok treatments. On a scale of 1-10, as shown, most patients were satisfied from the treatment outcomes (reported more than 75% improvement) while only 10% reported less than 50% improvement.

Will the patient recommend other oncologic patients to try Sujok treatment?

Sujok therapy as a complementary form of medicine is practiced by private therapists and doctors and not as a part of the conventional health system. Finally, we asked the patients if they would recommend friends and fellow patients to try Sujok therapy and would they like to receive Sujok treatments as part of the health services offered by the local health system. As shown in figures 4 and 5, more than 95% of patients will recommend to try support by the Sujok therapy method and would like to receive Sujok treatments within the public health care system.

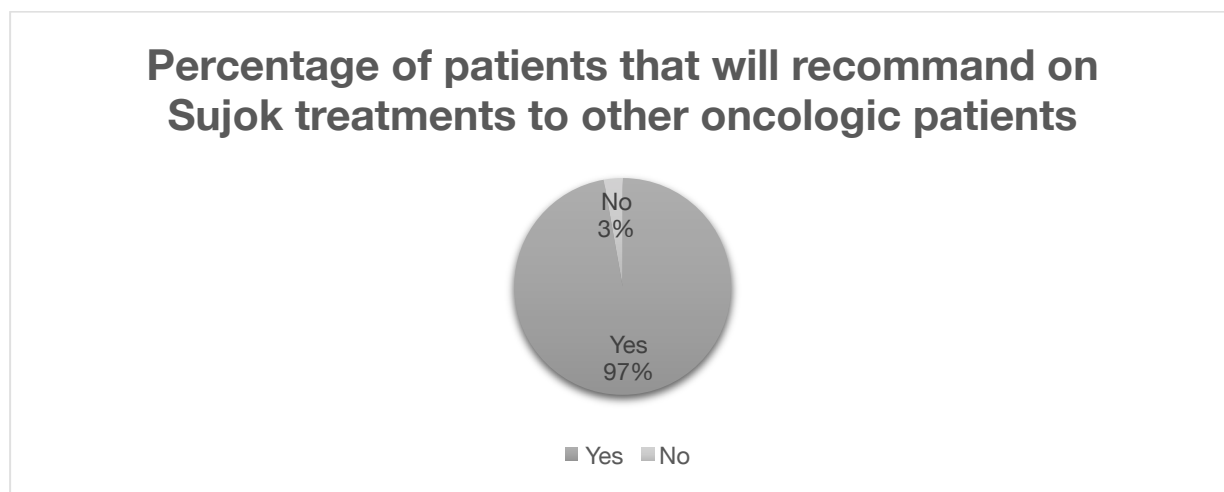


Figure 5: Percent of patients that will recommend other oncologic patients to try Sujok therapy.

258 patient responses were collected through the survey. 97% chose the option to recommend others while only 3% stated that they will not recommend others.

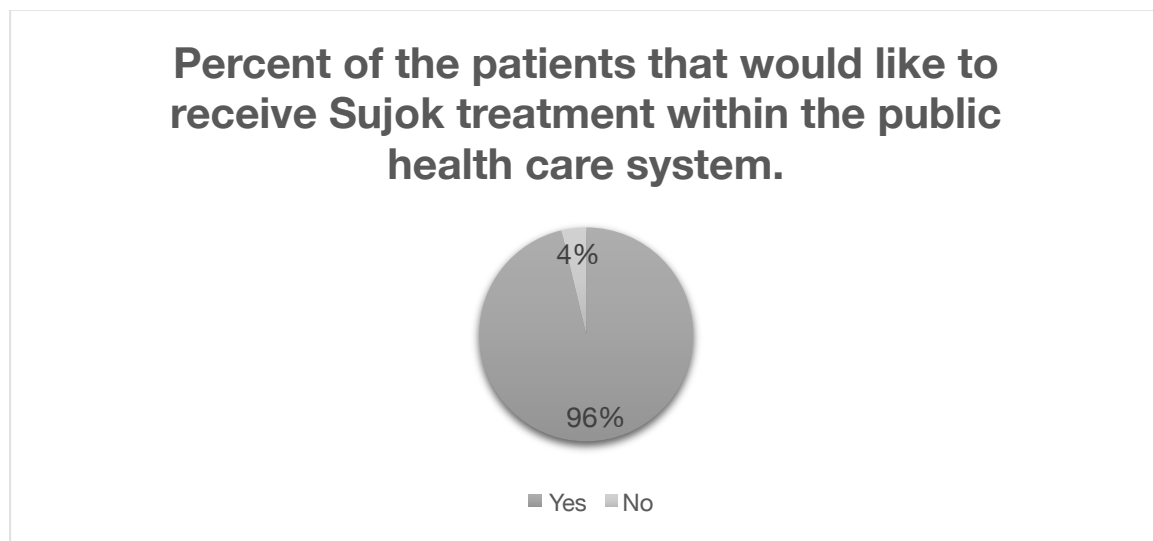


Figure 6: Percent of the patients that would like to receive Sujok treatment within the public health care system.

Responses from 258 patients were noted. 96% noted that they would like to receive Sujok treatments within the public health care system while 4% noted that they have no such request.

Discussion

While medical treatment has improved cancer outcome in the majority of the patients with early-stage disease, the recovery comes at the cost of side effects. These side effects are the unavoidable hazard of anti-cancer chemotherapy and include both immediate and late effects such as nausea and vomiting, constipation, fatigue, depression, infections, hair loss and sexual dysfunction and infertility.

The majority of the cancer survivors experience long-term effects of chemotherapy including those appearing many years after treatment completion.

These side effects are distressing and debilitating for the patients. We investigated long-term efficacy of a complementary therapy (Sujok) for the alleviation of treatment-associated side effects of several types of cancer.

The past two decades have seen an integration of complementary/integrative medicine (CIM) into conventional supportive and palliative care in many leading oncology centres. In 2003, the Society for Integrative Oncology (SIO) was established in the United States with the goal of advancing integrative medicine through evidence-based CIM treatments. At its inauguration, a panel of international healthcare experts assessed the most up-to-date scientific evidence that could consolidate CIM with supportive cancer care. Ever since, the SIO has successfully been providing guidelines for the implementation of CIM in oncology setting.¹⁶

The present survey focused on Sujok therapy, its potential in minimizing cancer treatment-induced side effects and improving quality of life in patients.

According to WHA70.12, cancer prevention and control in the context of an integrated approach, including pain relief and palliative care, can reduce mortality and improve outcomes and quality of life of cancer patients.

Effective public health strategies comprising of community- and home-based care, are essential for providing pain relief and palliative care for patients and their families in low-resource settings.

In this context, Sujok therapy – originally developed as a system for self-treatment – can be suggested as a complementary therapy that is easy to administer and cost-efficient.

In summary, the present study illustrates the relevancy of Sujok therapy as a palliative care adjunct to oncologic treatments. There is a natural variance in the response of patients to the Sujok stimulation as well as the compliance for self-treatment at home. Overall, it seems that Sujok therapy can be a useful supportive tool to support cancer patients physically and mentally. It increases patient tolerance to the chemotherapy and radiation side effects of weakness and fatigue and motivates patients to continue with medical procedures.

One of the unique advantages of the integration of Sujok therapy with the conventional treatment is that there is always “what to do” in terms of stimulation of curative points, tissue regeneration and energy flow. Hence, patients are never left alone without any strategy or escort to the healing process. Data collected from this study demonstrates that Sujok therapy improve

patients' wellbeing within a patient-centred context of supportive and palliative care. It would therefore be extremely constructive to make a collaborative effort to merge it with the conventional medical system. The goal of this project is to promote a research-oriented environment that works in unison to improve quality-of-life outcomes in cancer patients.

Our study has a number of limitations which warrant in-depth evaluation in future. For example, massive diversity existed in patient demographics and treatment offered. We suggest expanding research in a more cohesive group of patients sharing the same course of treatment and clinical stage of the disease. This will not only allow studying effectiveness of Sujok therapy in detail, it will also accurately answer the puzzling questions that cloud complimentary medicine.

In summary, the present study illustrates the promising effects of Sujok therapy in supporting existing oncologic treatments for palliative care. Although there are some expected natural variances in patient responses to Sujok therapy stimulation, in addition to issues of compliance in conducting self-treatment at home, overall, it seems that Sujok can be a useful therapeutic tool for supporting the oncologic patients.

REFERENCES

1. Ferlay J, Shin HR, Bray F, Forman D, M. C. and P. D. GLOBOCAN 2008 v2.0, Cancer Incidence and Mortality Worldwide. *IARC CancerBase No. 10 International Agency for Research on Cancer; 2010* (2010).
2. World Health Organization. *World Health Organization International Agency for Research on Cancer; Globogan 2013; Estimated cancer incident, mortality and prevalence worldwide in 2013. World cancer report* (2014). doi:978-92-832-0430-5.
3. F, B. *World Health Organization International Agency for Research on Cancer; Globogan 2013; Estimated cancer incident, mortality and prevalence worldwide in 2013. World cancer report* (2014). doi:978-92-832-0430-5.
4. F, B. Transitions in human development and the global cancer burden. *World cancer Rep.* (2014) doi:978-92-832-0430-5.
5. Park, J. W. *Sujok Therapy*. (Smile Academy, 1987).
6. Park, J. W. *Constitution Chart of Sujok Acupuncture*. South Korea. (1987).
7. Park, J. W. *Meridian Muscle and Byol Muscle Therapy*.
8. Park, J. W. *Guide to Hand and Foot Acupuncture*. (1986).
9. Park, J. W. *Be your own Doctor*. (Smile Academy, 1987).
10. Park, J. W. *Sujok Seed Therapy*. (Su Jok Academy.).
11. Park, J. W. Sujok for instant pain relief. *Acupunct. Today* **1**, (2000).
12. os Trujillo Huber, J. C., ia Pereira Despaigne, O. L., ad Jacas García, C. & ad García Díaz, R. de la C. Effectiveness of the Su-Jok therapy in patients with pain due to heel spur. *MediSan* (2016).
13. Malakhovski, V. Application of Onnuri Sujok Acupuncture in Thoracic

Postherpetic Neuralgia. *Onnuri Med.* **3**, 24-28 (2004).

14. Karmalkova, A. Application of Su Jok Therapy for Analgesia in Paediatric Dentistry. *Onnuri Med.* **14**, 26-27 (2004).

15. Pelageychenko, O. Efficacy of Su Jok Therapy in Complex Treatment of Diskogenic Rediculitis. *Onnuri Med.* **15**, 20-25 (2004).

16. Deng, G. E. *et al.* Evidence-based clinical practice guidelines for integrative oncology: Complementary therapies and botanicals. *Journal of the Society for Integrative Oncology* (2009) doi:10.2310/7200.2009.0019.

17. Safonov, M. I. & Naprienko, M. V. Analysis of the efficacy of reflexology in the complex treatment of chronic migraine. *Zhurnal Nevrol. i Psihiatr. Im. S.S. Korsakova* (2017) doi:10.17116/jnevro20171175122-25.

18. Sharma, P. & Sharma, D. Control/cure naturally the headache/migraine just by touching the tips of your fingers. *Cephalalgia* (2015) doi:http://dx.doi.org/10.1177/0333102415581304.

19. Starodubtsev, A. I., Starodubtsev, A. A., Karpov, S. M., Vyshlova, I. A. & Shvedova, D. V. Stopping of the pain syndrome at young patients with migraine. *Med. News North Caucasus* (2016) doi:10.14300/mnnc.2016.11098.

20. Ubaidullaev, A. M., Sharafutdinova, G. K. & Ismailov, S. U. Su-jok therapy of bronchial asthma. *Ter. Arkh.* (1998).

21. Ismailov, S. Treatment of Bronchial Asthma by Su Jok acupuncture. *Onnuri Med.* **2**, 67-69 (2000).

22. Bedniashina, I. Comparative Evaluation of Clinical Effect of Drug therapy and Sujok Therapy in Patients with Vascular Dyscirculatory Encephalopathy. *Onnuri Med.* **12**, 32-34 (2003).

23. S.A, Abuzyarova, M. B. Z. ., SU JOK ACUPUNCTURE IN INTENSIVE CARE FOR COMATOSE CONDITION. *Bull. Almaty State Inst. Adv. Med. Stud.*

24. L. R. Asenova, T. T. P. CLINICAL CASES OF RESPIRATORY DRIVE RECOVERY USING METHODS CHEN-CHIU THERAPY. *J. Neurosurg. Neurol. Kazakhstan* (2015).
25. Park, J. W. *Sujok for everybody*. (Smile Academy, 1991).
26. Gegechkori, N., Haines, L. & Lin, J. J. Long-Term and Latent Side Effects of Specific Cancer Types. *Medical Clinics of North America* (2017) doi:10.1016/j.mcna.2017.06.003.
27. WHO Disability Assessment Schedule 2.0 (WHODAS 2.0). <https://www.who.int/classifications/icf/whodasii/en/>.
28. Hsieh, H. F. & Shannon, S. E. Three approaches to qualitative content analysis. *Qual. Health Res.* (2005) doi:10.1177/1049732305276687.
29. Bower, J. E. Cancer-related fatigue--mechanisms, risk factors, and treatments. *Nature reviews. Clinical oncology* (2014) doi:10.1038/nrclinonc.2014.127.
30. Weis, J. & Horneber, M. *Cancer-related fatigue. Cancer-Related Fatigue* (2015). doi:10.1007/978-1-907673-76-4.
31. Andrykowski, M. A., Donovan, K. A., Laronga, C. & Jacobsen, P. B. Prevalence, predictors, and characteristics of off-treatment fatigue in breast cancer survivors. *Cancer* (2010) doi:10.1002/cncr.25294.
32. Curt, G. A. *et al.* Impact of Cancer-Related Fatigue on the Lives of Patients: New Findings From the Fatigue Coalition. *Oncologist* (2000) doi:10.1634/theoncologist.5-5-353.
33. Dodson, S. *et al.* Muscle Wasting in Cancer Cachexia: Clinical Implications, Diagnosis, and Emerging Treatment Strategies. *Annu. Rev. Med.* (2011) doi:10.1146/annurev-med-061509-131248.