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Integrative Medicine and Cancer: 5 Ways to Incorporate Integrative Oncology into Routine Clinical Practice

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Key Messages

- Integrative oncology is patient-centred, evidence-informed field of comprehensive cancer care that utilizes mind-body practices, natural products and lifestyle modifications alongside conventional cancer treatment.
- The Society of Integrative Oncology (SIO) and the American Society of Clinical Oncology (ASCO) have produced four evidence-based clinical practice guidelines for integrative therapies in oncology care.
- Practioners may consider non-pharmacologic evidence-based integrative therapies for a variety of cancer and treated related symptoms.
- Encouraging patients to eat a high-quality diet and to be active before, during, and after cancer treatment is beneficial.
- Establishing trust with patients who use dietary supplements is important in developing a therapeutic relationship.

Introduction

In 2018, over 1.5 million people in Canada were living with or after a cancer diagnosis.[1] While survival from cancer has increased steadily since the 1990s due to advances in screening, diagnosis, and more effective treatments, symptoms of cancer or side effects from treatment continue to affect the physical, emotional, and spiritual well-being of individuals.[2] While some people may turn to alternative therapies, many individuals seek an integrated approach to care (one that uses evidence-informed complementary therapies together with conventional medicine) **(Box 1)**.

Over the past 50 years, there has been substantial growth in the number of people with cancer using complementary therapies, from 20% in 1970 to 80% in 2017.[3]

To meet this need, many National Cancer Institute (NCI)- designated comprehensive cancer centres in the United States and centres in other countries have developed integrative oncology programs that offer evidence-informed, personalized, integrative cancer care.[4] Integrative Oncology, as defined by the Society for Integrative Oncology (SIO), is a “patient-centred, evidence-informed field of comprehensive cancer care that utilizes mind-body practices, natural products and lifestyle modifications alongside conventional cancer treatment".[5]

However, public Canadian comprehensive and community cancer centres have yet to implement integrative oncology programs into routine care. In the absence of structured programs, we suggest five ways oncologists can incorporate integrative oncology concepts into routine clinical practice to better support the needs of people with cancer.

Alternative Therapies are interventions that are chosen instead of conventional cancer care. They are not usually evidence-based and often are very expensive or require travel to other countries to access. They are not part of integrative oncology care.
Complementary Therapies are interventions, products, and procedures that are not traditionally part of conventional medical care but are typically used alongside conventional cancer treatments.

Integrative Oncology is a patient-centred, evidence-informed field of comprehensive cancer care that utilizes mind and body practices, natural products and lifestyle modifications alongside conventional cancer treatments.

1. Familiarize Yourself With the SIO/American Society of Clinical Oncology (ASCO) Guidelines

In 2020, ASCO and the SIO announced they would collaborate on producing a series of evidence-based clinical practice guidelines for integrative therapies in oncology care. To date, four guidelines have been published: Management of Fatigue in Adult Survivors of Cancer,[6] Cannabis and Cannabinoids in Adults with Cancer,[7] Integrative Oncology Care for Anxiety and Depression in Adults with Cancer,[8] and Integrative Medicine for Pain Management in Oncology.[9] The development of these guidelines indicates the commitment to the promotion of safe and effective use of integrative approaches in cancer care. Clinicians should familiarize themselves with these guidelines to provide an evidence-based approach to complementary therapies. In addition, oncology providers are encouraged to take continuing education modules on pain management and anxiety and depression guidelines.[10]

2. Include Evidence-based Non-pharmacological Recommendations for Symptom Management

Certain symptoms and side effects of cancer treatment may respond well to integrative therapies. In addition, people living with cancer may prefer these therapies over pharmacological treatments as they are perceived as less likely to interact with other treatments or cause additional side effects, and are often approaches they can learn and apply on their own.

Anxiety and/or Depression

Psychological distress, including anxiety and depression, is associated with poor quality of life and higher mortality in individuals with cancer. The strongest recommendation from the joint SIO/ASCO guideline is that mindfulness-based interventions (MBIs) should be offered during and after cancer treatment (quality of evidence: high; strength of Evidence: strong).[8] MBIs include mindfulness-based stress reduction (MBSR), mindfulness-based cognitive therapy (MBCT), and mindfulness-based cancer recovery (MBCR), which is specifically designed for people with cancer. Other recommendations for management of anxiety and depression during or after cancer treatment include yoga, music therapy, relaxation therapies, reflexology, and tai chi/qi gong.[8] Many of these modalities may be offered through psychosocial oncology or survivorship programs at public cancer centres, community cancer partners (i.e., Wellspring), general community programs for the public, or private psychotherapists.

Pain

For people with cancer, pain can be a result of tumour burden on associated structures and organs and/or may be due to side effects of treatments, including surgery, chemotherapy, immunotherapy, hormonal therapy, and radiation. Pain management requires an interdisciplinary approach and may include both pharmacologic and nonpharmacologic treatments. In the 2022 joint SIO/ASCO guideline on integrative medicine for pain management in oncology, several nonpharmacologic treatments are recommended based on an intermediate level of evidence and a moderate strength of recommendation.[9] For aromatase inhibitor-induced joint pain, acupuncture may be considered based on the results of several systematic reviews and randomized controlled trials, including a large phase III randomized trial.[11] Acupuncture and/or reflexology may be beneficial for people who have general or musculoskeletal pain from cancer, and hypnosis may benefit those who have procedural pain. Massage therapy may also be used, especially for patients in palliative or hospice care.[9]

Fatigue

Cancer-related fatigue (CRF) is a persistent, often overwhelming feeling of physical, mental, and/or emotional exhaustion that differs from fatigue caused by exertion, as it is not necessarily relieved by rest or sleep.[6] Up to 60% of people with cancer experience moderate-to-severe fatigue during cancer treatment, and up to 30% continue to experience fatigue months or even years after treatment completion.[12] During treatment, the incorporation of exercise, cognitive behavioural therapy (CBT), and mindfulness-based programs can improve CRF. In addition, during treatment, tai chi, qi gong, and American ginseng can be considered. After treatment completion,

yoga, acupressure, and moxibustion have been shown to be beneficial.[6]

Other symptoms that may respond well to integrative therapies include vasomotor disturbances,[13,16] insomnia,[14,16] chemotherapy-induced nausea and vomiting,[15,16] and radiation-induced dry mouth.[17]

3. Encourage People with Cancer to be Active Before, During, and After Cancer Treatment

Physical activity is important for people with cancer before, during, and after cancer treatment. A combination of aerobic and anaerobic physical activity has been shown to improve several outcomes, including fatigue, quality of life, anxiety and depression, physical fitness, risk of recurrence, and mortality.[18] In a recently published randomized controlled trial, a 3-year structured exercise program initiated soon after completion of adjuvant chemotherapy improved disease-free and overall survival in people with a history of colorectal cancer.[19] This was a significant finding as the magnitude of the effect of regular exercise on survival was similar to many anti-cancer drugs, with fewer adverse effects. Several guidelines recommend 150 min of moderate-intensity aerobic exercise, 3–5 sessions per week, and resistance training at least 2 days per week, as part of a 6–12 week program.[20] Physical activity recommendations should be individualized and tailored based on disease type and severity, comorbidities, and baseline physical fitness. Exercise sessions should be supervised, at least at the outset, by a certified trainer or physical therapist.

4. Discuss the Benefits of a High-quality Diet During and AfterTreatment

Diet plays an important role in maintaining health throughout a person's cancer journey. A high-quality diet includes high proportions of vegetables, fruits, beans/legumes, protein, and whole grains with limited proportions of foods with added sugar, high sodium, refined grains, and processed meats.[21] Such diets have been shown to reduce mortality,[21,22] improve health-related quality of life,[22] and reduce CRF.[23-26] Conversely, low protein intake may be associated with increased mortality and increased CRF.[23] Dietary patterns showing benefit on cancer-specific and overall survival in people with breast cancer include the Mediterranean diet, the dietary approaches to stop hypertension (DASH) diet, and adherence to the Chinese Food Pagoda.[21,22] These diets encourage high intake of fibre, fruit and vegetables, whole grains, and fish, while limiting intake of sodium, red and processed meats, and saturated fat. In patients with breast cancer undergoing adjuvant chemotherapy, a plant-based, high-protein diet improved fatigue, body mass index, and body composition.[25] Furthermore, in women with breast cancer who had completed treatment, a 3-month diet rich in fruit, vegetables, whole grains, and omega-3-fatty acids (named the fatigue reduction diet), improved fatigue and sleep compared to a general health curriculum.[24] While most of the dietary cancer research has been performed in women with breast cancer, some of the benefits are likely applicable to people with other malignancies.

The American Institute for Cancer Research (AICR) has developed evidence-based dietary recommendations for cancer prevention.[27] These emphasize eating plant-based foods, including whole grains, fruits, vegetables, and beans, while limiting consumption of alcohol, red and processed meats, and sugar. These recommendations can also be followed during and after cancer treatment. However, as these recommendations do not always consider ethnic preferences for specific foods, a dietitian may be beneficial in developing individualized meal plans.

5. Establish Trust With Patients Who May Take Dietary Supplements

Up to 80% of people with cancer use some form of dietary supplements, with 14-32% of patients starting a dietary supplement after a cancer diagnosis.[28] However, a significant proportion of patients do not discuss their supplement use with a healthcare provider, with common reasons including not being asked, expectation of disapproval, or perceived provider disinterest in the topic. In addition, oncologists report discussing supplement use with only a minority of their patients, with patients most commonly initiating the discussion.[29]

A significant concern with dietary supplements is the potential for interaction with medications, including anti-cancer drugs. In one study, 18% of patients were taking a supplement

that had potentially harmful interactions with their cancer therapies.[30] An integrative oncology clinic in the US reported that 35% of patients received at least one recommendation to discontinue a particular supplement following a detailed medication review.[31] However, such interactions can only be discovered if supplement use is discussed.

Oncologists should inquire what supplements their patients are using; these discussions significantly increase patient satisfaction with care.[29] Unfortunately, most studies regarding supplement use in the oncology setting are limited to observational studies or small phase I/II trials, so the quality of evidence regarding their efficacy is limited. If available, people undergoing cancer treatment should be directed to other integrative therapies that have shown benefit for a particular symptom or side effect before recommending dietary supplements. If a patient is committed to taking a dietary supplement, careful consideration must be given to its quality, safety, and potential drug interactions. Various databases can be referenced, including EfficaSafe,[32] AboutHerbs,[33] and the NatMed database.[34] Many integrative oncology programs have also incorporated clinical pharmacists to assist with supplement-related counselling,[35] and pharmacist involvement in the care of patients utilizing multiple supplements should be encouraged.

Conclusion

Integrative Oncology incorporates evidence-based integrative therapies into cancer care using a patient-centred approach. Clinicians should be aware of the evidence supporting these therapies and be comfortable discussing these data with patients. In the end, an integrated approach to care can maintain trust and rapport and improve the quality of life in people with cancer.

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