

Pay attention to the rehabilitation of cancer patients

—Excerpts of the 2013 NCCN Guidelines for Survivorship

Xiaoming Wu

Polyclinic Department, Cancer Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing 100021, China

Received: 10 February 2014 / Revised: 20 March 2014 / Accepted: 7 April 2014
© Huazhong University of Science and Technology 2014

Abstract For some survivors, the consequences of cancer are minimal; these patients can return to a normal life after the completion of treatment. In fact, a majority of cancer survivors report being in good general health and experience good to excellent quality of life. A recent review suggests that at least 50% of survivors suffer from some late effects of cancer treatment. The most common problems in cancer survivors are depression, pain, and fatigue. The guidelines suggest the following standards for survivorship care: (1) prevention of new and recurrent cancers and other late effects; (2) surveillance for cancer spread, recurrence, or second cancers; (3) assessment of late psychosocial and medical effects; (4) intervention for consequences of cancer and treatment (eg, medical problems, symptoms, psychologic distress, financial and social concerns); and (5) coordination of care between primary care providers and specialists to ensure that all of the survivor's health needs are met. The NCCN Survivorship Panel hopes that these guidelines can help both oncologic and primary health care professionals lessen the burden left on survivors by their cancer experience so they can transition back to a rewarding life.

Key words NCCN; guidelines; cancer; survivor; rehabilitation

Cancer is a major public health problem worldwide. With the advancement of science and technology, cancer survivors are increasing and the rehabilitation medicine attracts more and more attention. In 2013, the U.S. National Comprehensive Cancer Network (NCCN) released for the first time the Guidelines for Cancer Survivorship of cancer patients. According to the Guidelines, an individual is defined as a cancer survivor from the time of diagnosis, through the balance of his life. A periodic assessment is recommended for all the cancer survivors to determine any needs and necessary interventions. The guidelines focus on the vast and persistent impact both the diagnosis and treatment of cancer have on the adult survivor. This includes the potential impact on health, physical and mental states, health behaviors, professional and personal identity, sexuality, and financial standing. Many of cancer survivors are left with physical and/or psychosocial late and/or long-term effects of the illness, which can be severe, debilitating, and sometimes permanent. Care providers are also encouraged to assess the following at regular intervals to determine whether reversible or contributing causes for symptoms exist: (1) current disease status; (2) functional/performance status; (3) med-

ication; (4) comorbidities; and (5) prior cancer treatment history and modalities used.

For this inaugural version of the NCCN Guidelines for Survivorship, the panel focused on 8 common issues of survivors: (1) anxiety and depression; (2) cognitive decline; (3) pain; (4) female and male sexual dysfunction; (5) immunizations and prevention of infections; (6) fatigue; (7) sleep disorders; and (8) exercise.

Anxiety and depression

Survivors of cancer treatment are at especially high risk for anxiety and depression due to the multiple stressors, vulnerabilities, and challenges they face. Survivors should be closely monitored, especially at times of transition, surveillance, significant loss, major life events, and social isolation. Particular care should be taken to the patients with suicide attempt.

First-line medication treatments are selective serotonin reuptake inhibitors, serotonin-norepinephrine reuptake inhibitors and benzodiazepines. Supportive psychotherapy and cognitive behavioral therapy (CBT) are also effective modalities for reducing anxiety and depression in this population. In addition, routine exercise has been shown in clinical trials to have significant effects in

reducing symptoms of depression among survivors.

Cognitive dysfunction

Cognitive impairment often occurs in cancer survivors who had primary central nervous system (CNS) cancers or brain metastases, due to both the effects of brain tumors themselves and the effects of treatment targeted to the brain. Cognitive dysfunction is most commonly connected with chemotherapy, but evidence suggests that cancer itself and therapies other than chemotherapy, such as hormone therapy and radiation, can also cause cognitive impairments in patients with cancer. The underlying mechanisms for chemotherapy-induced cognitive changes are not known.

Currently no effective brief screening tool for cancer-associated cognitive dysfunction has been identified. However, patients who present with symptoms of cognitive impairment should be screened for potentially reversible factors that may contribute to cognitive impairment, especially depression. Patients exposed to treatment known to cause cognitive dysfunction (ie, intrathecal chemotherapy, brain irradiation) are likely to experience this condition.

Patients benefit from validation of their symptom experience, a thorough evaluation of this concern and related issues, and education. Patient/family education and counseling should be provided. General strategies for management of cancer-associated cognitive dysfunction include: instruct patient to avoid multitasking and minimize distractions, especially at work; provide information about relaxation or stress management skills for daily use; provide assistance for sleep disturbance; recommend routine exercise; encourage patient to be honest with others about his or her limitations; and limit use of alcohol and other agents that alter cognition.

Sports

All patients should be encouraged to be physically active and return to daily activities as soon as possible. Especially, aerobic exercise can improve the patient's cardiovascular health.

General recommendations for cancer survivors: overall volume of weekly activity of at least 150 min of moderate-intensity activity or 75 min of vigorous-intensity activity or equivalent combination; two to three weekly sessions of strength training that include major muscle groups; and stretch major muscle groups and tendons on days other exercises are performed.

The guidelines suggest that physical activity recommendations should be tailored to individual survivor's abilities and preferences, considering exercise frequency, type, intensity and length of time. Focused clinical evalua-

tion include: weight/BMI, blood pressure, history of anemia (consider CBC), functional status/performance status, and disease status.

Physical activity/exercise should be avoided in the following situations: severe anemia, immediately after surgery (wound healing), worsening/changing physical condition (ie, lymphedema exacerbation) or active infection.

Fatigue

Cancer-related fatigue is a distressing persistent, subjective sense of physical, emotional, and/or cognitive tiredness or exhaustion related to cancer or cancer treatment that is not proportional to recent activity and interferes with usual functioning.

Management for fatigue in survivors includes the identification and treatment of contributing factors such as progression or recurrence of disease, pain, distress, anemia, and sleep disturbances. Other possible factors include medications or alcohol/substance abuse, nutritional deficit/imbalance, and comorbidities such as cardiac dysfunction, endocrine dysfunction (eg, hypothyroidism, hypogonadism, and adrenal insufficiency), pulmonary dysfunction, renal dysfunction, and arthritis.

The severity of fatigue is evaluated by 0–10 scale: 0 = no fatigue; 10 = worst fatigue you can imagine; or by none, mild, moderate, severe: none to mild (0–3); moderate (4–6); severe (7–10). The guidelines recommend to screen every patient for fatigue as vital sign at regular intervals and suggest to maintain adequate levels of physical activity. However, survivors at higher risk of injury (eg, those living with neuropathy, cardiomyopathy, lymphedema, or other long-term effects of therapy or other comorbidities) should be referred to a physical therapist or exercise specialist. For patients with severe fatigue interfering with function, it should consider referral to a physical therapist or physiatrist. Other intervention includes psychosocial intervention and nutrition consultation.

Infection and immunity

Cancer survivors are at elevated risk for infection because of immune suppression associated with prior cancer treatments, including chemotherapy, radiation, corticosteroids, and stem cell transplantation.

Infection in cancer survivors can be prevented by education (eg, responsible pet ownership, avoidance of contact with other potentially infected animals, application of principles and practices of travel medicine), judicious use of vaccines, and antimicrobial prophylaxis.

The following vaccines should be considered and encouraged for all survivors, following the usual doses and schedules: trivalent inactivated influenza vaccine (TIV); pneumococcal vaccine (PPSV-23/PCV-13); tetanus,

diphtheria, pertussis (Tdap); and human papillomavirus (HPV). When some special circumstance or risk factor is present, vaccines for hepatitis virus, rabies virus, or meningococcus could be used.

Pain

Screening at regular intervals is suggested for cancer pain or cancer treatment-related pain in order to quantify pain intensity and characterize quality. The guidelines recommend the management of six categories of cancer pain syndromes: neuropathic pain, postoperative pain, myalgias/arthritis, skeletal pain, myofascial pain and gastrointestinal/urinary/pelvic pain.

Based on the NCCN Survivorship Panel, a multidisciplinary approach to pain management is recommended, with a combination of pharmacologic treatments, psychosocial/behavioral interventions, physical therapy/exercise, and interventional procedures. According to different pain syndrome, possible options for treatment include physical therapy, electrical nerve stimulation, ultrasonic stimulation, acupuncture or acupressure, heat (paraffin wax, hot pack) or cold pack, and aquatic therapy. General exercise may also be effective for treatment of pain. For refractory pain, it should consider referral to pain management services such as interventional pain specialist, physical therapy, physical medicine and rehabilitation.

Sexual dysfunction

Sexual dysfunction is common in cancer survivors but often not discussed. Cancer treatment, especially hor-

monal therapy and therapy directed towards the pelvis, can often impair sexual function. Depression and anxiety, which are common in cancer survivors, can also contribute to sexual problems. Sexual dysfunction can cause increased distress and have a significant negative impact on quality of life.

Patients should be asked about their sexual function at regular intervals by using the Brief Sexual Symptom Checklist as a primary screening tool. Possible options for the management of sexual dysfunction are as follows: psychotherapy, cognitive behavior therapy, sexual counseling, or lifestyle modifications such as smoking cessation, maintaining ideal body weight, engaging in regular exercise, and avoiding excess alcohol consumption.

Sleep disorder

Sleep disturbances include insomnia (trouble falling or staying asleep, resulting in daytime dysfunction), excessive sleepiness (which can result from insomnia or other sleep disorders), sleep-related movement or breathing disorders, and parasomnias. Sleep disorders affect 30% to 50% of patients with cancer and survivors, often in combination with fatigue, anxiety, and/or depression. Improvements in sleep lead to improvements in fatigue, mood, and quality of life. Most clinicians, however, do not know how best to treat sleep disorders.

The management of sleep disturbances includes physical activity, psychosocial interventions and pharmacologic treatments such as psychostimulants for narcolepsy (eg, modafinil, methylphenidate) and hypnotics for insomnia (eg, zolpidem, ramelteon).