

Chapter 32

CANCER AND PAIN

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INTRODUCTION

Cancer is a universal public health problem in our era. In addition to systemic problems, it can cause pain that impairs the quality of life of patients. Cancer pain may be related to a primary disease or result from various treatment approaches.

EPIDEMIOLOGY

Pain occurs in 25-45% of cancer patients in the early period and presents as a major problem in 70% of long-term cases. Half of cancer patients describe the level of pain they experience as moderate or severe, and approximately one-fourth characterize the pain as unbearable (1). For this reason, the World Health Organization (WHO) defines cancer pain relief as a personal right and stated that this pain must be eliminated (2).

In most cancer cases, pain emerges during the general course of the primary disease as a result of the invasion of the tumor into painful structures, such as neural tracts, fascia, and periosteum, bone metastasis. In one-fourth of cancer patients, pain is caused by side effects or complications due to the approaches used in the treatment (3). In addition to acute postoperative pain that may develop depending on the type of cancer surgery, pain can also manifest due to chronic or irreversible complications involved in various surgical operations; e.g., pain caused by the dissection of the intercostobrachial nerve in mastectomy and phantom pain secondary to extremity amputations. Chemotherapeutic agents used in the treatment of cancer may lead to the development of mucositis, myalgia, joint pains, cardiomyopathy, pancreatitis, and acute or short-term side effects due to the escape of the drug from the blood vessels during administration. Similarly, in the long term, other side effects associated with chemotherapy drugs may be observed, including peripheral neuropathy, aseptic bone necrosis, and postherpetic neuralgia. Radiotherapy applied during the treatment may also lead to the

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lignant neuropathic pain is also known; however, side effects, such as ataxia and drowsiness necessitate slow titration (31). The analgesic effects of antidepressants in neuropathic pain have been shown in many studies (32). In particular, the analgesic properties of tricyclic antidepressants; e.g., amitriptyline, imipramine, doxepin, clomipramine, nortriptyline, and desipramine have been reported. However, their side effects, especially in elderly patients restrict the use of these agents (33). Non-tricyclic antidepressants have fewer side effects, but there is less evidence for their analgesic efficacy. The use of venflaxin, duloxetine, and bupropion in neuropathic pain may be appropriate (34,35).

Oxycarbazepine is a carbamazepine derivative that can be used in neuropathic pain (36). The oral, transdermal and intraspinal use of clonidine, an alpha 2 adrenergic agonist agent, in non-malignant pain relief has been reported in several studies (37). Intraspinal clonidine has also been shown to reduce cancer-associated neuropathic pain in cases with a partial response to opioids (38). There are also discussions concerning the use of baclofen, cannabinoids, benzodiazepines, psychostimulants, and topical analgesics. In addition, percutaneously or surgically implanted spinal cord stimulation techniques have been employed in the treatment of neuropathic pain related to cancer and cancer therapy (39). In conclusion, for the effective management of neuropathic pain in cancer patients, it is necessary to effectively treat acute pain, use minimally invasive surgical techniques, and adopt an interdisciplinary treatment approach involving medical, interventional, psychological, cognitive, behavioral and physical therapy.

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