Neurologic Complications of Cancer and Cancer Therapy

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Neurologic complications that occur as a result of systemic cancer and its treatment can be more disabling for patients than their primary cancer. Patients’ neurologic function—their ability to communicate, read, walk, feed, and care for themselves, or even to recognize their families and friends—can be markedly impaired. The consequence of those losses to the patient are wide in scope and can include a loss of independence, confinement, and premature death. The families of patients also may suffer high levels of distress and disruption because their loved ones face alteration or loss of their unique traits and many of their capabilities.

Identifying neurologic signs and symptoms as complications of cancer can be challenging for healthcare providers for several reasons. Many patients with cancer are at an age when neurologic deficits present as consequences of aging, or as a new onset of a neurologic disorder such as Parkinson or Alzheimer disease. Importantly, neurologic decline can have a subtle and insidious presentation and may be hard to identify from the other symptoms that may distress the patient. Oncology nurses, therefore, must have a high index of suspicion for those complications when examining or interviewing patients who present with neurologic symptoms or deficits and have a known systemic cancer. This article is intended to help oncology nurses identify the common presentations of these complications and understand the pathways by which they occur in the hope that early identification will facilitate appropriate intervention from healthcare providers and help slow the progression of neurologic deficits and systemic decline.

When neurologic complications occur as a result of systemic cancer and cancer treatment, they can be more disabling for patients than their primary cancer and significantly impair functioning in varied domains. However, recognizing neurologic signs and symptoms as complications of cancer and its treatment can pose a challenge for healthcare providers. Oncology nurses must develop a high index of suspicion for neurologic complications when examining or interviewing patients who present with neurologic symptoms or deficits and have a known systemic cancer. The purpose of this article is to help oncology nurses identify the common presentations of those complications and understand the ways in which they occur, with the hope that early identification will facilitate appropriate medical intervention and slow the progression of neurologic deficits and systemic decline.