Cognitive Impairment in Older Adults With Cancer

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Cognition is a highly sophisticated, multifactorial, interrelated set of neurologic functions responsible for attention, perception, memory, learning, language, and thinking. One’s ability to perceive, recognize, register, store, and use information represents distinct entities of cognition.[1] Illness, medical therapies, and the aging process can negatively affect cognition.

ADMINISTERING THE MINI-COG

Instruct the patient to listen carefully and remember three unrelated words. Then ask him or her to repeat the words. Next, ask the patient to draw the face of a clock on a blank piece of paper, adding the numbers and the hands of the clock to reflect a specific time. Then ask the patient to repeat the three words.

Scoring for the CDT is normal if all numbers are present in the correct sequence and position on the clock, and the hands readably display the requested time. Inability to perform the tasks warrants further evaluation, as does inability to recall all three words.

Age-related alterations in the brain include morphologic changes in cerebral tissues, reduced blood flow, and neurotransmitter changes.[2] Volumetric reduction in brain size and gray and white matter shrinkage increase with advanced age. Despite degenerative brain changes, however, the adult brain is resilient and able to undergo successful cortical remodeling, resulting in healthy older brains. In caring for older cancer patients, it is critical to establish the presence of cognitive impairment.

The Impact of Cognitive Impairment

Compromise of cognitive capability can influence treatment tolerance, symptom distress management, and overall quality of life. Older patients with cognitive impairment may have difficulty in articulating their symptoms (some of which may be manifestations of pathological conditions) to the healthcare provider, and in reporting on the effectiveness of treatment interventions. Cognitive impairment may deter patient learning by interfering with information reception, retention, and synthesis, particularly in terms of the patient’s understanding of self-care strategies communicated by the healthcare provider. It also may affect the cancer patient’s capacity to make decisions regarding treatment and care planning, may increase the patient’s feelings of discomfort and distress, and may negatively impact the patient’s relationships with family members. TABLE 1

| TABLE 1 |

| Distinguishing Dementia From Delirium |

Healthcare professionals routinely fail to assess patients’ cognitive function. In the absence of obvious pathology, assumptions as to cognitive intactness generally are made that often lead to clinical problems and ethical dilemmas. Routine assessment can detect early signs of cognitive compromise, which in turn can prompt appropriate intervention planning. Given the frequency and intensity of interactions with patients, nurses are instrumental in the determination of cognitive function.[3] SUGGESTED READINGS FOR A GERIATRIC ONCOLOGY NURSING JOURNAL CLUB Esbensen BA, Swane CE, Hallberg IR, et al: Being given a cancer diagnosis in old age: A phenomenono-logical study. Int J Nurs Stud 45(3):393–405, 2008.

Delirium Versus Dementia

While a decline in cognitive function is a hallmark of aging, pathological variations in human brain anatomy are not.[4] Delirium and dementia represent abnormal neurologic processes. Oncology nurses should be aware of five cardinal characteristics that differentiate dementia from delirium.[5] A comparison of these two conditions is provided in Table 1.[6] Delirium has a sudden onset, and it is characterized by a fluctuating, yet time-limited course of symptoms (including disorientation to time and place) and memory impairment specific to recent events. Dementia is characterized by an insidious, progressive course (over months to years), with symptoms that remain constant over time, and generalized memory impairment (with respect to both recent and remote events).

Tools to Assess Cognitive Function

Tools that oncology nurses can use to assess cognitive function focus on screening, not diagnosis. They are characterized by their brevity and appropriateness of use in clinical practice, and serve to alert practitioners to potential pathology. While the Folstein Mini-Mental Status Exam (MMSE) has been the gold standard, a more contemporary tool has relevance for oncology nurses. The Mini-Cog is a screening tool comprising a three-item recall test combined with the Clock Drawing Test (CDT). It takes 3 minutes to administer and is not biased by language, education level, culture, and ethnicity (see sidebar, “Administering the Mini-Cog”). Again, this is a screening tool whose results warrant more advanced neuropsychological testing when abnormal findings are identified. Determination of cognitive status as an element of symptom distress should be a usual corollary of oncology nursing assessment (see box, “Suggested Readings for a Geriatric Oncology Nursing Journal Club,” for additional resources). Alterations in cognition have the potential to significantly interfere with quality of life in the older adult with cancer.


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