



PII: S0959-8049(99)00227-0

Point of View

A Comprehensive Geriatric Assessment (CGA) is Necessary for the Study and the Management of Cancer in the Elderly

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AGEING MAY be construed as a progressive decline in one's ability to withstand stress, due to functional, cognitive and social limitations [1], and this decline is associated with shortened life expectancy and increased prevalence of chronic diseases [2].

The medical oncologist and the practitioner managing older persons with cancer are faced with the following questions:

Will this patient die of cancer or of unrelated conditions?

During his/her lifetime, will this patient suffer complications of cancer, such as pain and disability?

Can the patient tolerate cytotoxic chemotherapy in full doses?

The answer to these questions may be provided by a multidimensional assessment of the older person that accounts for individual variations in life expectancy, health and ability to withstand stress. The diversity of the older population should be accounted for in clinical trials of cancer treatment, for adequate patient stratification. The benefits of a certain form of treatment can be established in randomised clinical trials involving patients with comparable life expectancy and treatment tolerance.

A multidisciplinary assessment of this type has already been successful in several areas of geriatric medicine, including preservation of independence, prevention of hospital admissions [3] and of falls [4] and management of acute conditions such as delirium [5]. In this paper, we argue the benefits of a comprehensive geriatric assessment in the management of cancer and in the planning of studies for the heterogeneous population of elderly cancer patients.

THE COMPREHENSIVE GERIATRIC ASSESSMENT (CGA)

Several aspects of geriatric care should be assessed. Functional assessment in terms of Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL) is important for at least four reasons: the short-term (2 year) mortality increases with the degree of dependence [1]. Functional dependency may be amenable to rehabilitation, dependence

in ADLs is a criteria of frailty [2,6], and dependence in IADLs may suggest decreased tolerance to chemotherapy [7].

The prevalence of comorbid conditions increases with age and may lead to increased mortality (data not shown). Also, careful assessment of the health status may reveal unsuspected and undetected diseases that compromise the management of cancer, such as cardiac insufficiency, renal dysfunction, anaemia or diabetes.

Both dementia and depression are associated with increasing mortality [6]. The mini-mental status (MMS) allows dementia to be graded as mild, moderate or severe, and the geriatric depression scale (GDS) is a useful screening tool for depression. Both conditions may also reduce the understanding of, and the motivation for, cancer treatment. Management of depression may improve the cognitive status and the quality of life of the patient and foster treatment acceptance.

Malnutrition, a common problem among older individuals, enhances the risk and the severity of treatment complications [8]. The mini-nutritional assessment (MNA) recognises older people at risk for malnutrition and allows aggressive prevention of this complication.

A number of social issues, including income, availability of transportation and home support influence the tolerance of antineoplastic treatment. Of these factors, the identification of the caregiver is the most critical. The ideal caregiver is independent and able to accommodate the highly unpredictable course of cancer in the older person [9].

Polipharmacy is a major source of morbidity for the older population and may interfere with the effectiveness and safety of cytotoxic chemotherapy. The presence of one or more geriatric syndromes (i.e. incontinence, osteoporosis, dementia, etc.) qualifies a patient as frail and reveals special needs in terms of support and rehabilitation [6].

Potential benefits of the CGA are numerous and discussed below.

Recognition of a frail person is of obvious importance. Frailty is defined by one of the following criteria: aged 85 years and over; presence of one or more geriatric syndromes, three or more comorbid conditions; one or more ADL dependence [6]. The frail person has exhausted almost all functional reserves and is generally a candidate for supportive care only.

Among the non-frail patients, an estimate of life expectancy based on CGA determines long-term treatment decisions, such as the use of adjuvant chemotherapy. Tolerance of chemotherapy may be predicted by functional status (as IADLs) [7], comorbidity and social support. It is self-evident that prevention and treatment of malnutrition management of concomitant diseases and adequate social support may ameliorate the tolerance and effectiveness of treatment.

Perhaps the most important aspect of the CGA in geriatric oncology is the provision of a common language capable of encompassing the high degree of diversity of the older population. This diversity has represented one of the major obstacles to the study of elderly patients in clinical trials. The CGA allows the establishment of different categories of function, life expectancy and therapeutic risk that may be used for patient stratification in clinical trials of cancer treatment.

PERSPECTIVES

The CGA represents the first important frame of reference for the study and the management of older persons with cancer. Clearly, the CGA has limitations. From a practical standpoint, the CGA is time-consuming and is broad-based. As a shortened version of the CGA, the minimum data set (MDS) is being accepted in general geriatrics, one may ask whether similar instruments may apply to geriatric oncology. Extermann and colleagues tried to establish whether a single index may reflect functional status and comorbidity, but found more correlation between different parameters [10]. French investigators established that only a few of the IADLs are predictors of functional decline and need to be assessed [11]. Monfardini and associates validated a shortened version of CGA called MACE in a small number of older individuals [7]. A useful time-saving compromise for the medical oncologists could be obtaining information on ADL, IADL, and GDS directly from the forms filled in by the patient or his/her relatives, while the information on comorbidity could be derived from the clinical charts. This information could be valuable for the clinical management of these patients, even if not enough in the context of clinical studies. Assessment on the Mini Mental Status, whenever needed, always requires instead to be performed by the caregiver.

In addition, some of the assessments within the CGA need time-tuning. For example, the severity of comorbid conditions may be more meaningful than the number of these conditions and a validated index of social function is still needed. Furthermore, current investigators are trying to establish whether age-related changes may be reflected in laboratory tests.

Clearly, the assessment of age is undergoing continuous evolution as our understanding of the process improves. We recommend that the CGA be used as the gold standard for the validation of new parameters.

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