Challenges in Caring for the Elderly with Cancer



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The proportion of those living beyond 60 years has increased significantly and will increase further over the next couple of years. It is projected that by 2020, the population of elderly globally would be more than 700 million with two-third belonging to the developing countries. The demographic shifts Lebanon experienced over the last few decades indicate that it is a rapidly aging country. According to the 2012 edition of the National Health Statistics Report in Lebanon, there were 377,473 of elderly individuals in 2007 with about 65% of them aged between 65 and 74. Furthermore, among Arab countries, Lebanon has currently the highest percentage of older persons. Advancing age is a high risk factor for cancer, with persons over 65 accounting for 60% of newly diagnosed malignancies and 70% of all cancer deaths, mainly prostate, bladder, colon, uterus, pancreas, stomach, rectum, and lung carcinomas.

The choice of treatment modalities in term of radiotherapy. chemotherapy, or even surgery becomes a difficult decision both for the doctor and patients and their relatives.

The Elderly has Multiple Comorbidities

Older people are more likely to have comorbidities and geriatric syndromes such as incontinence, falls, functional decline, polypharmacy and delirium. Physical, cognitive, or emotional issues add to the complexity of their care needs. Quality in cancer care mandates partnering with older adults to enable them to anticipate changing health needs, incorporate their preferences into plans of care, and consistently act based on their individual goals. There should be an emphasis on quality of life when determining which treatments they are willing to accept. Ensuring that high-quality services such as palliative care or hospice are available in a timely manner also is essential to addressing this challenge.

Age-related changes in pharmacokinetics

Changes in organ functions may affect all pharmacokinetic and pharmacodynamics parameters. For example, decreased production of saliva and gastric acid, decreased production of digestive enzymes, and a decrease in perfusion of the gastrointestinal tract all contribute to a high variability of gastrointestinal uptake of drugs. The perfusion of the liver also decreases with age, leading to a prolonged metabolism of medications, and hence, more toxicity. Moreover, the change in body composition in the elderly should prompt the need to increase the concentration of water soluble drugs as well as to decrease the concentration of fatsoluble drugs. Age-related decrease in creatinine clearance of almost 1 percent per year should also be considered. The potential for drug interactions is relatively high in the elderly because of polypharmacy.

Comprehensive Geriatric Assessment (CGA)

The CGA is a multidimensional evaluation tool designed by geriatricians to assess general health status based on validated geriatric scales and tests to uncover and explain multiple problems, allowing the development of evaluation via a full GA. The G8 screening tool consists an individualized care plan. The core components of the CGA are functional status, cognition, mood and emotional status, social support, financial concerns, nutritional status, comorbidities and polypharmacy, geriatric syndromes, goals of care, and advance care planning. It is a tool suitable to measure fitness or frailty of a given person. It relies on a core team consisting of a physician, a nurse, and a social worker, who obtain assistance as needed from other health care professionals (e.g., nutritionist, physical therapist, and/or psychologist).

Baseline screening using the G8 Screening Tool

Although CGA is valuable in oncology, a full GA is time-consuming. Geriatric screening tools such as G8 are recommended to identify patients in need of further

of eight items dealing with food intake, weight loss, mobility, neuropsychological problem, body mass index, prescription drug, and self-perception of health and was developed specifically for elderly cancer patients. The G8 is used as an important prognostic indicator to discriminate between fit older patients who are likely to tolerate standard therapy and vulnerable patients who would benefit from specific treatment tailoring based on findings from a complete CGA. A G8 score > 14 shows that patients should receive the same treatment as younger patients. Patients with score G8 < 14 should undergo a full geriatric evaluation, assessing comorbidity, nutritional status, and cognitive and physical functions, to determine if the impairment is reversible.

G8 Screening Tool

Items		Possible Responses (score)
A	Has food intake declined over the past 3 months due to loss of appetite, digestive problems, chewing, or swallowing difficulties?	0=severe decrease in food intake 1=moderate decrease in food intake 2=no decrease in food intake
В	Weight loss during the last 3 months?	0=weight loss > 3 kg 1=does not know 2=weight loss between 1 and 3 kg 3=no weight loss
С	Mobility?	0=bed or chair bound 1=able to get out of bed/chair but does not go out 2=goes out
D	Neuropsychological problems?	0=severe dementia or depression 1=mild dementia 2=no psychological problems
Е	BMI? (weight in kg)/(height in m2)	0=BMI < 19 1=BMI 19 to < 21 2=BMI 21 to < 23 3=BMI > 23
F	Takes more than three prescription drugs per day?	0=yes 1=no
G	In comparison with other people of the same age, how does the patient consider his/her health status?	0.0=not as good 0.5=does not know 1.0=as good 2.0=better
Н	Age	0: > 85 1: 80-85 2: < 80
	Total score	0-17

Aging and Cancer Research

Despite the fact that the majority of patients with cancer are older adults, they have been and continue to be underrepresented in all types of cancer trials. Fewer than 3% of newly diagnosed adult cancer patients participate in clinical trials, with the rate of elderly enrolment reaching only 25%. Until recently, most of the prospective clinical trials have excluded this group of patients from the trials due to their poorer physical conditions. Therefore, fewer data are available for assessing the risks and benefits of cancer treatments that carry the possibility of adverse effects and functional decline.

In conclusion, the management of elderly cancer patients requires multidisciplinary skills: notably, close relationships between oncologists and geriatricians to offer a range of interventions that are being tailored to the circumstances of individual patients through a combined oncogeriatric approach, assessment of life expectancy, and optimization of agents and drug dose using tools to predict chemotherapy-associated toxicity to improve patient outcomes, most notably quality of life.

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