

## Never too old to treat cancer?

### Challenges in treating elderly and very old cancer patients

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Modern medicine has largely contributed to the remarkable increase in life expectancy in developed countries. On the other hand, this progress has also created new challenges. During the normal life span, an increasing cumulative acquisition of clonal genetic changes can be observed that predisposes to cancer and leads to the fact that cancer by itself is a predominant disease of the elderly [1].

In addition, the changes in age distribution in the populations with increase of the elderly pose a challenge for the care of these patients, as they need special attention and specific approaches due to the presence of comorbidities.

It has been noted that chronological age is a risk factor for survival in cancer or cancer treatment (e.g., age adjusted IPSS-R in myelodysplastic syndromes (MDS) or treatment related mortality in acute myeloid leukemia [2, 3]), but age is only a surrogate parameter for biological age. Therefore, the assessment of comorbidities and patients' resources using a thorough geriatric assessment is much more important.

Fortunately, there are increasing data on methodology and prognostic impact of geriatric assessment in elderly cancer patients at the time of cancer diagnosis. It can detect multiple health issues, even in patients with good performance status. Impairments in geriatric domains have predictive value for mortality, and also appear to be associated with toxicity and other outcome measures [4].

In contrast, the situation with clinical intervention trials in cancer is still disappointing. Even if (only chronological) age is used as stratification parameter which thus gives some information on respective outcomes, most

selection criteria still exclude the vast majority of elderly patients and thus limit the external validity of trials (even in diseases with a preponderance of elderly patients such as MDS [5]). It has to be stressed that inclusion of elderly patients in clinical trials is of utmost importance to obtain data on efficacy and safety in this particular group of patients. Most clinical trials still use overall or progression-free survival as primary endpoints whereas other endpoints including maintenance of quality of life and functional activities which may be more relevant for elderly cancer patients are still neglected [6].

The papers collected in this issue of *memo* reflect the state of the art in geriatric oncology and address problems and progress in different malignant diseases in the elderly. Different problems arise from diverse pathophysiologies of cancer types and various treatment approaches needed such as surgery or the requirement for aggressive chemotherapy with curative intent in different tumors. Despite this diversity, there is consensus that chronological age per se is not the trigger for decisions. Efforts described in the papers include improvement and integration of geriatric assessment methodology into clinical trials and subsequent implementation into clinical practice, approaches for better mobilization of patients' resources and development of new treatments that are better tolerable for elderly cancer patients.

Needless to say, the patient must remain the center of all efforts, clinical decisions have to be made together with the patient after definition of treatment aims, on an individual basis, integrating concepts of geriatric oncology by an interdisciplinary team.

Never too old to treat cancer—certainly there is no patient too old to receive care for his or her cancer.

#### Conflict of interest

The author declares no potential conflict of interest.

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