



## Letter to the Editor

Geriatric Evaluation Programs and Elderly Oncology Patients<sup>†</sup>

Dear Editor,

Quality of life and life expectancy are two important and strongly linked aspects of old age. On one hand, the improvement of economic and social conditions in the Western world has resulted in an increase in average life expectancy, but on the other hand, progressive aging has shed light on the intrinsic frailty of the older population. It is already known that advanced age correlates not only with an increase in chronic diseases and disabilities but also with an increase in cancer cases. In the past, tumors in elderly patients were, at times, underestimated and undertreated. The doctors not only mistakenly believe that cancer in the elderly was less aggressive and grew more slowly but also that the patient's advanced age was a sufficient reason for nontreatment<sup>1</sup>. Fortunately, the recognition of the dignity of the elderly and their rights to be treated has led, in the course of the last decade, to the creation of models for multidimensional geriatric evaluation (MGE), useful instruments for putting all the complexities of the elderly and the oncology patient into perspective.

There is no doubt that the biggest challenge we face today is to discern which of our elderly oncology patients will benefit from aggressive therapies and which will benefit from supportive care only<sup>2</sup>. This difficulty is attributed partially to the rarity of published studies that had used MGE as an integral part of the decision making<sup>3,4</sup>. We cannot underestimate how much this lack notably weighs on the validity of MGE, and it reflects that its use in clinical practice is still not very structured and is even a bit ambiguous. To this, we can add the uncertainty that still exists about which therapeutic approach to use for older cancer patients—uncertainty that translates into less-than-optimal or excessively toxic treatments or in a poorer outcome than younger patients<sup>5</sup>.

Studies on MGE in this category of patients have demonstrated how the functional state of the patients predicts their probability of survival, toxicity of the chemotherapy, posttreatment vulnerability, and mortality<sup>6–9</sup>. The presence of a serious comorbidity, in fact, goes along with a particularly unfavorable prognosis for an oncology patient<sup>2,10–14</sup>. This leaves us asking why a patient who is considered frail, therefore largely prone to serious toxicity during the therapy and thereafter, with serious disabilities and a lower response to the therapy, can be subjected to treatment when his

or her situation requires only a support therapy, according to the criteria of frailty established by using MGE? Perhaps, at the root of this problem is a subjective interpretation of the patient's frailty? Does a common definition of frailty exist?

Exemplary of this is a retrospective study conducted by Basso et al<sup>15</sup> on 117 elderly patients (with an average age of 75 years) suffering from cancer. All of them were slated to receive either adjuvant or neoadjuvant chemotherapy or chemotherapy for metastatic disease. Among these 117 patients, 40 (34.2%) were frail. Although there were no differences in the use of the “elderly-friendly” treatment among the frail and nonfrail (40% of frail patients and 39% of nonfrail patients), in the dose reduction greater than or equal to 25% (37.5% vs. 31.2%), in 3- to 4-grade toxicity (52.5% vs. 58.4%), there were remarkable differences between the groups in the percentages of premature interruption of treatment because of toxicity or the patient's refusal (42.5% vs. 15.6%) and the deaths within 30 days of the last dosage of the chemotherapy (22.5% vs. 3.9%). This demonstrates that the frail patients had obtained benefits from the treatment that were notably lesser not only in terms of tumor response (21.2% vs. 44.3% in 94 evaluated patients) but also in terms of clinical benefits (22.6% vs. 45.8% in 90 evaluated patients)<sup>15</sup>.

In light of these results, it is natural to ask ourselves why frail patients should be subjected to therapy if a comorbidity or real disabilities are present. Perhaps, because external requests coming from the family or the patients themselves, even rightly so, interfere with the doctor's choice, influencing the therapeutic approach and rendering it more aggressive? Perhaps, because the current criteria of frailty do not fully contemplate the real heterogeneity in the phenotype of the elderly patient<sup>16</sup>, presenting the risk of erroneously classifying the patient?

Therefore, frailty cannot be seen only as a physiological state resulting from a general decline of the body and of the deregulation of different metabolic systems<sup>17,18</sup>, but instead, should be considered a syndrome, meaning a cumulative effect of deficiencies in many areas (social, cognitive, physiological, biological), which together resolve into a particular adverse outcome<sup>19–23</sup>.

Surely, the introduction of MGE has improved the approach to the elderly cancer patient, but we believe that it has not substantially impacted the management of the same. First of all, only a small number of oncology physicians has begun to use this new way of interacting with the elderly<sup>24</sup>; in fact, a complete MGE is rarely used in clinical practice by those who are interested in taking care of the elderly patient, and this can be attributed to the additional time that MGE requires<sup>25</sup>. On the other hand, the administration of various questionnaires takes place with different methods and at times that vary among different

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treatment centers<sup>26</sup>. In general, MGE gets administered during the first visit<sup>27</sup>; there are no studies that claim that MGE should be repeated at a later time during the treatment, and this, in our opinion, is a serious mistake. Every individual is a dynamic entity, and as such, is prone to changes and modifications in their health over time. This means that an oncology patient can experience changes in his or her condition not only in consequence to his or her disease but also to the treatment, and these alterations should be closely monitored. MGE should become a valid method of support in that sense and should be repeated also at the moment of the first reevaluation, at the end of the therapy, and during the next follow-up. This way, it can reveal potential signs for concern and allow the doctors to modify therapeutic decisions accordingly.

The comprehension of the diverse factors in the vulnerability of the elderly population and the unequivocal coding of the frailty can, in our opinion, offer new opportunities in terms of prevention as well as in promotion of good health and better assistance. However, it is of fundamental importance that the recognition of a situation of frailty is accompanied by an adequate therapeutic choice, at all costs avoiding putting a frail patient through chemotherapy, keeping in mind that these patients already have a very unfavorable prognosis and a high risk of developing serious toxicities. The deciding moment for the use of MGE should be, therefore, well planned: Through this, the doctor should be able to evaluate for every patient all the resources that he could put into use for facing both the disease and the treatment, to and prevent causing unnecessary decline of the quality of life of the elderly patient. Only when MGE really becomes a part of daily clinical practice and gets taken into consideration more in the choice of therapies, we could consider it a truly useful tool. Senior adult guidelines of NCCN<sup>27</sup> can offer, together, comprehensive geriatric assessment that provides the possibility to choose the most appropriate treatment for geriatric cancer patients.

In recent times, multiple clinical trials have investigated the safety and efficacy of metronomic chemotherapy in a variety of human cancers. Although the results have been variable, clinical studies have shown that these new treatment protocols represent an interesting alternative for either primary systemic therapy or maintenance therapy, and they are a possible option for the elderly patients.

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