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Preoperative evaluation of the older patient with cancer

*Riccardo A. Audisio**

University of Liverpool, St Helens Teaching Hospital, Marshalls Cross Road, St Helens WA9 3DA, UK

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ABSTRACT

The lack of knowledge has helped us in progressing with the aim of offering the right surgical treatment to the right patient at the right time. Preoperative assessment of frailty identifies those patients who are at a higher operative risk, more prone to develop complications, spend more time in hospital and cost more to the community. Phase IV trials are becoming essential in expanding our understanding, while randomized clinical trials are unlikely to add substantial value in this field of clinical research.

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1. Introduction

Increased human longevity is notoriously the most significant independent prognosticator for developing a malignant tumor.

Epidemiologists have also proven how powerful the correlation is between a patient's increasing age and substandard cancer treatment; the EUROCARE-5 project recently confirmed a poor cancer-specific survival for older oncological patients.[1]

* *Tel.*: +44 1744 64 6783; fax: +44 1744 64 6331.
E-mail address: raudisio@doctors.org.uk.

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Multidisciplinary cancer treatment has certainly improved cancer outcomes and advances in radiation and medical oncology should not be under evaluated; there is however no doubt that surgery is currently saving the largest number of lives of patients with cancer and associates with the highest chance of a cure following the diagnosis of a malignant tumor. It would therefore be unfair to pass the blame onto medical or radiation-oncologists for the poor outcomes of senior patients; surgical oncologists must take full responsibility and accept their failure in delivering the correct treatment at the appropriate moment of time. If we want to put this bluntly: the poor oncological failure in treating older patients is mostly a surgical fiasco.

2. Lack of Knowledge

The main reason behind this substandard performance is the present lack of knowledge. We simply do not know how best to treat this group of patients; there is no evidence to support one treatment plan against another. And we will never know until we clarify what kind of patient we are dealing with. The spectrum is very broad: we go from centenarians who run marathons, ski and sail solo handed, to extremely unfit patients with numerous associated conditions, polypharmacy and psycho-social impairment. It is not wise to generalize and pull all individuals into the group of "older patients with a diagnosis of cancer". The former group should be informed that active management is possibly the best option as the risks of a surgical treatment are contained. The latter should be discouraged and should be prevented from unjustified side effects, when the success of aggressive treatment is insignificant and the risks are excessive.

But how can we deal with the huge number of individuals who do not fit into these two extreme groups; the large number of average older patients which we regularly encounter in our everyday practice?

3. The Need for Geriatric Assessment and Geriatric Understanding

After almost two decades of a productive and close collaboration with geriatricians, oncologists are beginning to learn. As always, there is no magic stick and no perfect solution. We have learned how important it is to assess for frailty: frailty assessment has proven to assist in tailoring treatment, improving outcomes, reducing costs and complications. This has been demonstrated for surgical patients[2,3] as well as for medical series. Frailty assessment has to be implemented and several countries in Europe are now requesting basic information for this purpose.

The issue is not set, to be honest: some physicians insist on the absolute need for a complete CGA, on the ground that it is superior to screening tools. Theoretically they are right, but this is not compatible with a busy surgical clinic however, only less than 20% of screened cases will need further assessment and active prehabilitation. The largest proportion of the oncogeriatric population is rather fit (refs). Also, it might be worth noticing how a thorough CGA is a very good tool, yet not the perfect one, as it is still unable to identify all issues. It is therefore our experience to bring screening tools into our clinical practice. We use Vulnerable Elders Survey (VES-13), Groningen Frailty Index (GFI), nutritional assessment[4] and the timed up-and-go.

It is a matter of concern that basic surgical curricula offer very modest education in geriatric care.[5] A significant effort should take place, when training not only physicians but also nurses. Educating medical staff in the recognition of specific geriatric syndromes such as delirium and communication with hearing impaired elderly or patients with cognitive dysfunction is only the beginning of optimizing peri-operative care.[6] All medical staffs dealing with older patients need to be educated on the assessment and management of co-morbidity and polypharmacy as well as the importance of functional evaluation whenever a treatment is planned (Should specialized oncogeriatric surgeons operate older unfit patients with cancer?).[7]

4. Alternative Ways Toward Improving Surgical Treatment

The lack of hard level 1 evidence in geriatric oncology is well known and several specialists feel guilty for not having been able to produce a number of clinical trials entirely dedicated to the onco-geriatric subset. Randomized clinical trials represent an important source of evidence; they are the foundation for the development of evidence-based clinical guidelines. However, numerous important limitations to the conclusions derived from randomized trials should be considered: when less than 1% of all patients with cancer are treated inside a clinical trial, it is legitimate to suspect a selection bias. This might generate findings which are inappropriate for most patients not meeting the inclusion criteria. Patients with different comorbidities, rare tumors or simply old age are often excluded from randomized clinical trials. Elderly patients with cancer, as well as the youngest ones, are at risk of under- or over-treatment. The largest number of tumors peak at an old age and elderly patients present the worst cancer-specific survival. Interestingly, even when older patients are included into methodologically accurate clinical randomized controlled trials (RCTs), they are not representative of older patients from the general population.[8] The inclusion/exclusion criteria of RCTs are there to ensure that a population is homogenous and that statistical significance can be reached for the study population. An accurate selection of the study group implies a smaller sample size in order to achieve 80% power. Patient lack of assortment, e.g. due to comorbidities, may thus result into a substantial selection bias.

The "publication bias" is also a matter of concern. All unpublished negative trials will eventually impact on the design of clinical guidelines: on one side negative results are undisclosed and kept in the dark; on the other, published trials might be excessively weighted when a meta-analysis is conducted.

An alternative but reliable way to improve our knowledge of the way oncogeriatric patients have to be treated is through phase IV "real life" studies: a large number of information is prospectively entered into good quality population-based registries. Results are monitored and outcomes are analyzed.

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