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Translation Requires Evidence: Does Cancer-Specific CGA Lead to Better Care and Outcomes?

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The field of geriatric assessment is crowded by a variety of assessment domains, a plethora of assessment tools, and research spanning diverse care settings. In their article published in this issue of the journal *ONCOLOGY*, Schubert, Gross, and Hurria have synthesized the evidence and propose a subset of commonly used functional assessment tools for assessing older adults with cancer.[1] Although the authors present a helpful summary of physical, cognitive, psychosocial, and other relevant domains and present a well-formed argument for their integration into the care of older cancer patients, their efforts represent only part of the information required for the translation of evidence into practice.

Aging is a highly individualized and complex process. Comprehensive geriatric assessment (CGA) is multidimensional and identifies a range of patient factors that are used to formulate an individualized care plan for clinical management. Studies of CGA interventions in various forms and settings have shown positive health effects in older populations. [2–5] Unfortunately, the efficacy data currently available regarding CGA only allow for analysis of indirect evidence supporting the use of cancer-specific CGA.[6,7] Without cancer-specific CGA data on such outcomes as choice of treatment, treatment tolerance, treatment completion, survival, disease-specific survival, quality of life, hospitalizations, and nursing home admissions, and without studies that determine which domains (for both patient and caregiver) and which measures are most useful, we simply do not have the knowledge base to translate the use of cancer-specific CGA into evidence-based practice.

Prospective Studies

Nearly a decade's worth of publications, including recommendations from the International Society of Geriatric Oncology (SIOG) task force on CGA, underscore the need for prospective studies to determine cancer-specific CGA's ability to predict relevant outcomes.[6,8–10] Notwithstanding, to our knowledge, there are few prospective outcome-based studies of cancer-specific CGA.[11–14] This is a notable start, but is insufficient to provide the evidence necessary for translation.

It is accepted that well-conducted randomized controlled trials (RCTs) provide the highest level of evidence to guide clinical management. However, conducting RCTs in vulnerable

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patient populations such as older cancer patients is challenging, and oncology treatment trials have documented low participation rates among older adults.[15,16] Barriers to participation and retention include study design; physician, patient, and logistic issues (eg, availability of caregivers, travel constraints); and financial costs. Additionally, the heterogeneous nature of older cancer patients necessitates large samples and/or increased duration of observation to achieve adequate study power.

Nonetheless, prospective clinical trials of cancer-specific CGA are feasible, albeit more difficult and expensive to conduct and complete. They are critically needed to provide the evidence required to redesign the care of older adults and improve outcomes.

Retrospective Studies

Outcome-based retrospective cohort and case-control studies evaluating the effectiveness of cancer-specific CGA are alternatives to RCTs, but are hitherto unrepresented in the literature. Retrospective studies circumvent the challenges of enrollment, retention, and attrition, as well as the high costs of prospective studies, by using existing data sources. If not properly designed, however, they can be more prone to confounding and bias.

In the case of cancer-specific CGA, the primary challenge of conducting retrospective studies is the scarcity of programs with sizeable numbers of patients for whom pre- and posttreatment data are available. This likely explains the absence of studies using these designs in the literature.

Central Questions

Regardless of study design, future studies of cancer-specific CGA must answer such central questions as: Does cancer-specific CGA improve outcomes'? Which outcomes? In whom? Using which assessment methods? Once efficacy has been established, the challenge of translation into practice can be tackled.

For example, outcome-based research should provide evidence of different effects across heterogeneous populations and health-care settings. Future research should measure feasibility, as well as costs and benefits of cancer-specific CGA for patients, families, and clinicians. The effectiveness of different models of implementation should be explored (eg, staffing [geriatric specialists vs dually trained physicians, multidisciplinary oncology teams with vs without a geriatrician], mode of assessment [self-report vs performance-based], screening [brief screen for targeted CGA vs untargeted CGA]).

A compilation of such evidence will allow us to understand how and whether cancer-specific CGA can guide career treatment decision-making. Its true utility can only be known through well-planned outcomes-focused research.

Conclusions

While age alone should never be the sole reason for not offering an older cancer patient treatment, the effects of aging on function, physiology, and the availability of social supports cannot be ignored during the care-planning process. Cancer-specific CGA offers clinicians the promise of an effective strategy for integrating factors into better decision-making, care, and outcomes. To move from promise to reality, we must move from extrapolating from studies of older adults without cancer to actual studies of older adults with cancer. We must expand and accelerate our production of outcome-focused cancer-specific CGA evidence. Only then can translation begin.

As Schubert, Gross, and Hurria conclude, ultimately the integration of knowledge learned in the field of geriatric oncology will optimize cancer cure for older adults—a worthy goal for collaborative CGA research agendas and vital to the treatement and survivorship experience of the growing numbers of older cancer patients.

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