

Geriatric oncology: The need of the hour

In India, the geriatric population is slowly increasing. There has been a gradual decline in the proportion of the population in the age group 0-14 years from 36.3 to 30.9% during 1991-2010; whereas, the percentage of elderly population (60 years and above) has gone up from 6.0 to 7.5% during the same period of time. As per the last census, the population above 65 years of age comprises approximately 5% of the total population of our country (urban 4.8% and rural 5.1%).^[1]

This gradual change in the population dynamics will finally lead to an increased number of geriatric problems in the healthcare sector. As per the cumulative data from various rural cancer registries during the period of 2004-2005, the incidence of various cancers in the elderly population (65 years and above) is 25% (out of the 1,929 cancer patients; 486 patients are 65 years and above); whereas in urban cancer registries, the incidence is 29% (out of the 68,671 of cancer patients; 19,912 patients are 65 years and above). This data indicates that geriatric cancer patients form a significant number of cancer patients in India despite the small proportion of geriatric population in our country.^[2]

By understanding the physiology of ageing, we can better deal with the problems of elderly patients. Secondary to hormone dysfunction and decreased protein synthesis in elderly patients, there is an increase in the body fat and decreased total body water and muscle mass, loss of sweat glands, decreased gastrointestinal (GI) motility and absorption, and decreased hepatic and renal function. There is also immunologic deregulation and compromised marrow reserve in the elderly.^[3] These physiological alterations along with other co-morbidities such as ischemic heart disease, hypertension, diabetes mellitus, and cerebrovascular disease play an important role in the treatment planning and tolerance of treatment in this population.

Few trials and meta-analyses in breast cancer studies show that chemotherapy as well as surgical management in the geriatric cancer patients are not similar. Data from the meta-analysis performed by the Early Breast Cancer Trialists Collaborative Group (EBCTCG) in 2005, suggested that elderly patients derived less benefit from chemotherapy than younger patients.^[4] Yancik *et al.* also showed that co-morbidities in older patients may limit the ability to obtain prognostic

information (i.e. axillary lymph node dissection), which tends to minimize treatment options (e.g. breast conserving therapy), and increases the risk of death from causes other than breast cancer.^[5] Similar findings were observed in the meta-analysis for chemotherapy in head and neck cancer (MACH-NC) in patients older than 70 years of age.^[6] Conversely, there are trials showing that fit elderly patient can be equally benefited from palliative chemotherapy. Okamoto *et al.* showed that the combination of carboplatin and paclitaxel at usual doses is a feasible treatment option with a favorable toxicity profile for fit elderly patients with advanced non-small cell lung carcinoma (NSCLC).^[7] Thus, the treatment decision for elderly cancer patients is difficult due to lack of validated criteria across the tumor types.

The article by Sarkar and Shahi in this issue of the journal has addressed the problem of cancer care in elderly Indian patients.^[8] In their study, carcinoma of the tongue, larynx, prostate, and bladder were more common in the elderly population while carcinoma of cervix, breast, and gall bladder were more common in younger patients. Majority (75 vs. 78%) patients both in elderly and younger age group presented in advanced stage of disease (stages III and IV). More number of elderly patients refused the treatment or abandoned the treatment in between, compared to younger patients (57 vs. 47%) in the study. Majority of elderly patients received only radiotherapy. The small number of patients, lack of objective criteria in treatment planning and response assessment make it difficult to interpret the results and tolerability of various treatment modalities in elderly Indian cancer patients. However, this paper highlights the disease spectrum, treatment pattern, tolerability, and outcome of various cancers in the elderly population and emphasizes the need for specialized care for these patients in India and southeast Asia region. Further studies involving large number of elderly cancer patients are warranted to address these issues.

A good geriatric assessment should include an assessment of co-morbidities, functional status, depression, mental status, polypharmacy, nutritional status, social support, and living situation. Comprehensive geriatric assessment (CGA) is a widely used method for assessment of geriatric cancer patients.^[9,10] CGA includes a multidimensional evaluation of the general health status, functional, cognitive, social, and psychological parameters of older persons. CGA consists of different evaluation instruments and is generally performed by interview or by various performance tests and takes about 30-45 min. Screening tools have been developed for these elderly patients and those who are deemed to be at high risk as per initial screening test are then subjected to full CGA. This two-step approach selects the patients for detailed history and examination and decreases the burden on the health

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system. Various screening tools include G8, Vulnerable Elders Survey (VES)-13, Groninger frailty indicator, and Flemish version of the triage risk screening tool.^[11-14]

CGA and various other assessment tools are not pertinent to our social, cultural, and economic scenario. With the increasing population of elderly cancer patients in India; we need assessment tools feasible for our population and subspecialty of geriatric oncology to cater to this specific group of cancer patients.

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