

## Geriatric Oncology: the elephant and the five 'blind' men...

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The story alluded to in the title of this article is well known in oncology. One tries to imagine the predicament of five visually challenged but supremely intelligent human beings who have never seen the animal try and decipher its existence using touch and failing miserably to understand the enormity of its being. Much like cancer and the oncologist, the only difference being the animal called cancer is probably too enormous for even the most astute intellect.

That story, interestingly, also lends itself to another allegory. The five represent the major branches of cancer management, namely surgical oncology, medical oncology, radiation oncology, onco pathology and diagnostic radiology. Geriatric oncology is the elephant in the room. The tragedy is that all of them are TURNING A BLIND EYE towards the entity. We know that the problem is enormous. We are all pretending that it doesn't exist, or, better still, it will go away on its own, like most elephants do. Sadly, that's not going to happen anytime soon. It is thus fitting that the theme of our state conference strives to bring to the attention of the largest oncological community of the region this unmet need in modern day oncology.

Geriatric oncology is a branch of medicine that is concerned with the diagnosis and treatment of cancer in the elderly, usually defined as aged 65 and older. The data on geriatrics is sobering. Age in itself is one of the most important risk factors for developing cancer. Currently in the west, 60% of newly diagnosed malignant tumors and 70% of cancer deaths occur in people aged 65 years or older. Moreover, these patients are considered unfit for what we consider standard therapy. These patients are also excluded from most large clinical trials, thus making the practice of evidence based medicine virtually impossible in this setting. To add to these substantial odds, the social problems of futility of therapy versus caregiver reluctance due to financial and social issues crop up often and leave the oncologists cursing their luck on having to experience possibly the darkest shades of human nature in their clinics. Each and every one of us has a story to tell in this regard.

India is in a phase of demographic transition. As per the 1991 census, the population

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of the elderly in India was 57 million as compared with 20 million in 1951. There has been a sharp increase in the number of elderly persons between 1991 and 2001 and it has been projected that by the year 2050, the number of elderly people would rise to about 324 million. India has thus acquired the label of “an ageing nation” with 7.7% of its population being more than 60 years old. The demographic transition is attributed to the decreasing fertility and mortality rates due to the availability of better health care services. It has been observed that the reduction in mortality is higher as compared with fertility. There has been a sharp decline in the crude death rate from 28.5 during 1951–1961 to 8.4 in 1996; while the crude birth rate for the same time period fell from 47.3 to 22.8 in 1996. Over the past decades, India's health program and policies have been focusing on issues like population stabilization, maternal and child health, and disease control. However, current statistics for the elderly in India gives a prelude to a new set of medical, social, and economic problems that could arise if a timely initiative in this direction is not taken by the program managers and policy makers. [1]

Cancer presentation and therapy in the geriatric population in India has been the subject of a few well researched publications. Yeole *et al.* presented a demographic analysis of geriatric cancer patients from Mumbai cancer registry. From 1961 to 2001 the proportion of geriatric cancers had increased from 5.6% to 7.5% of all cancer patients. They projected that the proportion would be increasing to 12.4% by 2026. Similar analysis about geriatric patients was done from another metropolitan city by Vora *et al.* Very interesting recommendations have been made available by Dr V M Patil *et al* in their article on patterns of care in Geriatric patients presenting at Malabar Cancer Center (Fig 1). Insights from their experience serve as basis for pertinent recommendations. This, in my humble opinion, is an excellent approach towards a problem for which evidence generation will always be a vexing issue. Perhaps every institute can adopt this approach towards making their own protocols for their geriatric patients. [2]

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Fig 1

Insight	Recommendation
46.2% of patients are treated with curative intent	Routine use of geriatric assessment is necessary as this proportion of patient receiving curative treatment is above our threshold of 30%
Unimodality is the predominant modality of treatment	Comprehensive geriatric assessment should be done so that use of multimodality treatment can be increased. In addition use of palliative chemotherapy can be increased
Only 6% of patients received chemotherapy	through improved case selection as offered by comprehensive geriatric assessment
44.2% of patients above age 75 are single and may lack social support	Involvement of social workers with a local geriatric support system is a necessity
Age more than 75 have increased chances of been treated with palliative intent	The implementation of geriatric support to be in phased manner with initial implementation to be done in age above 75 years and then in second phase to be extended to all patients above age of 70 years

Although the physiology of ageing is a vast subject by itself, one of the intriguing questions we face on almost a daily basis is whether an elderly patient will be able to tolerate therapy. The judgement regarding treatment of geriatric patients is often criticized due to a strong element of subjectivity that invariably creeps in during the decision making process. However, comprehensive geriatric assessment (CGA) has tried to objectify this and might serve as a very useful tool in day to day practice. CGA is a multidimensional, interdisciplinary diagnostic process to determine the medical, psychological, and functional capabilities of a frail elderly person in order to develop a coordinated and integrated plan for treatment and long-term follow-up. The typical components of such an assessment are as enumerated in table 1.

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Table 1 Components of CGA

Elements	Component
Informal support needs and assets Care resource eligibility/financial assessment	Social assessment
Home safety Transportation and telehealth	Environmental assessment
Elements	Component
Problem list Comorbid conditions and disease severity Medication review Nutritional status	Medical assessment
Basic activities of daily living Instrumental activities of daily living Activity/exercise status Gait and balance	Assessment of functioning

Despite being exhaustive, the routine use of such an elaborate tool in day to day practice might be daunting. An example of a simpler and more user friendly assessment tool available for prediction of chemotherapy toxicity is shown in Figure 2 (CRASH score).[3]

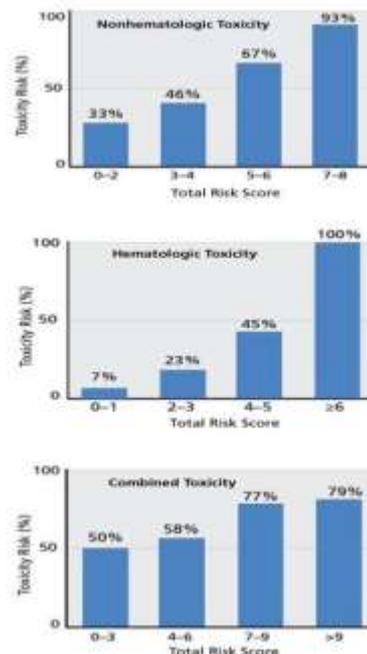
Figure 2

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### CRASH SCORE

Risk Factor	Score	
Hematologic toxicity	DBP >72	1
	IADL <26	1
	LDH <sup>†</sup>	2
	Chemotoxicity <sup>‡</sup>	1-2
Nonhematologic toxicity	ECOG PS <sup>§</sup>	1-2
	MMS <30	2
	MNA <28	2
	Chemotoxicity <sup>‡</sup>	1-2
Combined toxicity	Total score <sup>¶</sup>	0-12

Abbreviations: CRASH, Chemotherapy Risk Assessment Scale for High-Age Patients; DBP, diastolic blood pressure; ECOG PS, Eastern Cooperative Oncology Group performance status; IADL, instrumental activities of daily living; LDH, lactate dehydrogenase; MMS, Mini Mental Health Status; MNA, Mini Nutritional Assessment  
<sup>†</sup>Risk score based on association with grade 4 or higher hematologic toxicity and grade 3 or higher nonhematologic chemotherapy-related toxicity.  
<sup>‡</sup>LDH greater than 0.74 times the upper limit of normal.  
<sup>§</sup>Chemotoxicity score: low = 0, medium = 1, high = 2.  
<sup>¶</sup>ECOG PS: 0 = 0; 1-2 = 1; 3-4 = 2.  
<sup>‡</sup>Chemotoxicity scored only once.



Despite these minor advancements approaches in geriatric oncology need to be looked at and reworked keeping in mind the special needs and constraints this population of patients present with. Modern oncology needs to take into cognisance the magnitude of the problem and active interest needs to be developed through efforts like this conference to be able to effectively and safely deal with it in the coming years. It is time to change our approach of nihilism towards geriatric oncology. It is time we unblinded the five blind men.

### References

1. Ingle GK, Nath A. Geriatric Health in India: Concerns and Solutions. *Indian Journal of Community Medicine* : Official Publication of Indian Association of Preventive & Social Medicine. 2008;33(4):214-218. doi:10.4103/0970-0218.43225.
2. Patil V M, Chakraborty S, Dessai S, Kumar S S, Ratheesan K, Bindu T, Geetha M, Sujith K, Babu S, Raghavan V, Nair C K, Syam V, Surij S, Sathessan B. Patterns of care in geriatric cancer patients – An audit from a rural based hospital cancer registry in Kerala. *Indian J Cancer* 2015;52:157-61
3. Kim J, Hurria A. Determining Chemotherapy Tolerance in Older Patients With Cancer. *Journal of the National Comprehensive Cancer Network* : JNCCN. 2013;11(12):1494-1502.