

Head and neck oncology: The Indian scenario

Head and neck cancers are a significant problem in our country constituting approximately one-third of all cancer cases in contrast to 4–5% in the developed world. Paradoxically, however, management of these cancers is dictated by guidelines emanating from the West with just a handful of seminal publications from India. The efforts of the leadership of Indian Society of Medical and Paediatric Oncology and Indian Society of Oncology in putting together a conference with a difference highlighting – “Indian Data and Practical Recommendations” is to be commended. This initiative will not only help place current contributions from India in proper perspective but more importantly would highlight gaps in the published literature and help identify potential avenues for future studies. This hopefully will inspire many a youngster into meaningful research which will impact on the global stage in the years to come.

Tuljapurkar *et al.*, have made a sincere effort at compiling Indian studies that have supposedly changed practice and challenged dogma in the management of head and neck cancers in the last decade. Majority of quoted studies are a far cry from Level I/II evidence and also lack a high citation index to seriously challenge dogma or change practice. They correctly identify that there are many unexplored areas as well as a strong need for more evidence-based research from the country.

Decreasing use of tobacco over the last few decades has resulted in a decline in the incidence of tobacco-related head and neck cancers in the developed world. Although there have been some attempts by the government to decrease the use of tobacco, given the magnitude of the problem there is much more that needs to be done to significantly impact on reduction in the incidence of head and neck cancers in the country. Parallel to this decrease in the incidence of tobacco-related cancers, there has been an increase in human papillomavirus (HPV) related cancers affecting the oropharynx in the West. This changing epidemiology is however not seen in India despite literature to suggest an up to 40% coexisting prevalence of HPV in our head and neck cancers.^[1] Studies focusing on why this difference in the carcinogenic process, would be an interesting avenue of research given the fact that evolving data suggests that these cancers may be treated differently with different outcomes.

In India, majority of cancers present as locally advanced Stage III/IV disease. While most efforts usually focus on therapy and outcomes, the need for early detection cannot be overlooked. Sankaranarayanan *et al.*, in a randomized controlled trial from Kerala have demonstrated a reduction in mortality from oral cancers in high-risk individuals subjected to screening by trained health workers.^[2] While it may be difficult to implement the findings of this study and initiate screening for oral cancers at a national level due to obvious reasons, it makes a compelling case to explore innovative measures such as opportunistic screening among high-risk individuals or mouth self-examination as a cost-effective alternative.

Despite the proven benefit of taxanes in addition to cisplatin, the role of chemotherapy has not been established outside its use concurrently with radiotherapy or in the palliative settings. Its use in the neoadjuvant settings in borderline resectable oral cancers with potential benefit demonstrated in a large cohort of patients by Patil *et al.*, is an exciting new indication. Findings

of this study have set the stage for a potential trial comparing upfront surgery versus neoadjuvant chemotherapy followed by surgery in a previously unexplored indication which would not only be relevant to our patient population but contributes significantly to global literature.

While Gupta *et al.*, have shown the feasibility of the weekly cisplatin regimen, widely practiced in India, its use is not substantiated by strong evidence when compared to the 3 weekly regimen. There is, therefore, a need for a trial comparing both these regimens in the definitive and adjuvant settings. The results of the study currently being undertaken at Tata Memorial Centre addressing this question would have the potential to impact and change current practice world over. This is important given the potential advantages of ease of administration, cost implications, compliance, and toxicity of the weekly regimen compared to the current standard of 3 weekly cisplatin.

Metronomic chemotherapy based on its novel target on tumor neovascularization is another promising avenue given its low cost, ease of administration and decreased toxicity. In the quoted studies by Tuljapurkar *et al.*, in both the adjuvant and palliative settings, there seems to be some advantage. This approach, if found beneficial in larger trials could replace targeted therapy in the palliative settings with all its advantages.

It is heartening to note that there has been a significant increase in the number of publications in head and neck from India in the last decade [Figure 1]. Figure 1 shows yearly distribution of publications in head and neck cancers from India (2000–2014). Search strategy: “Head and neck neoplasms” (MeSH Terms) or (“head” [All Fields] and “neck” [All Fields] and “neoplasms” [All Fields]) or (“head and neck neoplasms” [All Fields]) and India (Affiliation).^[3] Unfortunately, the majority are not practice-changing or defining. Given the large patient load, adequate infrastructure, trained manpower and low overheads, there is a tremendous opportunity for research from within the country. The recently published randomized controlled trial on the management of clinically node negative neck in early stage oral cancers by our group has demonstrated that it is possible to do simple, pertinent studies which could make a significant contribution to global literature.

While randomized controlled trials are the gold standard and would be ideal, they may be at times difficult to conduct and time consuming. However, not being able to conduct large randomized studies should not be a deterrent to make meaningful contributions. Approaches focussing on palliative care, newer chemotherapeutic regimens and indications, cost-effective strategies (metronomic chemotherapy), decreasing

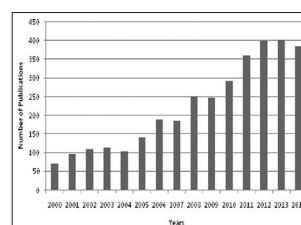


Figure 1: Yearly distribution of publications in head and neck cancers from India (2000–2014). Search strategy: “Head and neck neoplasms” (MeSH Terms) or (“head” [All Fields] and “neck” [All Fields] and “neoplasms” [All Fields]) or (“head and neck neoplasms” [All Fields]) and India (Affiliation)

duration of treatment (conventional vs. altered fractionation), quality of life studies (LASER vs. radiotherapy for early glottis cancers), defining the role of high end technology (image guided radiotherapy, proton), or exploring the use of indigenous agents such as curcumin could be other avenues for research.

Hopefully, initiatives such as this will translate into better quality of research from our country in the years to come, to make significant contributions to global literature.

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References

1. Elango KJ, Suresh A, Erode EM, Subhadradevi L, Ravindran HK, Iyer SK, *et al.* Role of human papilloma virus in oral tongue squamous cell carcinoma. *Asian Pac J Cancer Prev* 2011;12:889-96.
2. Sankaranarayanan R, Ramadas K, Thomas G, Muwonge R, Thara S, Mathew B, *et al.* Effect of screening on oral cancer mortality in Kerala,

3. India: A cluster-randomised controlled trial. *Lancet* 2005;365:1927-33. Available from: <http://www.ncbi.nlm.nih.gov/pubmed>. [Last accessed on 2016 Feb 14].

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