

It is time to move from surgical oncology program to a site-specific specialization: An urgent need to reorganize training in cancer care in India

The present decade is witnessing an upheaval and conceivably an unsettling era in placement of surgical oncology as an elite expansive specialty. In India, MCh in surgical oncology is becoming a popular option of specialization. The National Board of Examination started its own DNB program in surgical oncology. As mandated by the MCI or NBE requirements, the surgical oncology aspirants have to undergo rotations in several specialized oncology fields, such as head and neck, gastrointestinal, thoracic, gynecology, urology, etc. In some centers, this site specialization does not exist and the candidates have to rotate through surgical units that cater to cancers of all sites. Most centers that offer surgical oncology training are stand-alone specialized cancer care facilities with limited or no access to the undergraduates and the postgraduates of surgical branches, such as general surgery, gynecology and otolaryngology. Therefore, the growing emphasis on treatment at specialized cancer centers has eroded the cancer care facilities in most of the medical colleges in India. Needless to say that majority of cancers in India are treated in medical colleges and not in specialized cancer centers.

The concept of surgical oncology seems a bit confusing in the current world. It was a distinct specialty few decades back, when surgery formed the mainstay of treatment of most solid tumors. That was the time when there were less effective chemotherapy drugs, less evolved radiotherapy equipments and research were not fashionable. In those days, surgical oncology was carved out from general surgery because of differences in the principals, need for adjuvant treatment, etc. In the current era, it is agreed upon that most urologists are well trained for urological tumors, orthopedicians for bone/soft tissue tumors, gastroenterologists for GI cancers, otolaryngologists treat head and neck tumors, pediatric surgeons are best healers of childhood tumors, neurosurgeons are best when it comes to brain tumors and gynecologists are supposed to treat gynecological cancers. The only site that is clearly left without any conflict for a surgical oncologist is the female breast! While the developed world has moved to organ-specific specialization, our continuing emphasis on 'surgical oncology' seems draconian. Some argue that this is just a step toward organ-specific specialization. If that is true, are we justified in wasting 3 years of a student's precious life? After struggling for several months for an identity in private practice, one of our MCh students lamented that he seems to have become a glorified general surgeon! He spent another 2 years to get the status of a specialist! His practice grew manifold after he switched from surgical oncologist to a focused hepatobiliary surgeon. He not only got better recognition from the civic society but also in academic forums. Now, he feels that his 2-year rotations in head and neck, gynecology, breast were of no significance to him. As such, he hardly gets few referrals for nonhepatobiliary cancers and has lost the confidence to operate those cases. Moreover, he accepts that it is impossible for him to perform uniformly high quality of surgery for all organs and keep abreast with latest advances. This story classically illustrates the pitfall in our surgical oncology training program.

What makes a good cancer surgeon is not his ability to remove the tumor but to decide on optimum investigations, ensure postoperative care and organize appropriate adjuvant treatment. In a fast changing oncology scenario, it is impossible to keep pace with advances in adjuvant treatment or the neoadjuvant treatment related to different cancers. In the absence of a mandatory need of CME points for license renewal, most surgical oncologist may be following outdated protocols. If a surgical oncologist has to attend specialty conferences to update his knowledge then he may have to attend dozens of conferences each year!

The role of specialization and its impact on outcome of cancer treatment is well established. Such a data is available for esophageal cancer,^{1,2} breast cancer,^{3,4} colorectal cancer,^{5,6} pancreatic cancer,⁷ ovarian cancer,⁸ gastric cancer, etc. This may be attributed to complexity of these surgeries and need for good postoperative care that is bound to be better in high-volume centers. It is assumed that less complex surgeries, such as breast surgery, may not follow this phenomenon. This assumption is proved wrong by a systematic analysis that shows that breast cancer treatment in specialized cancer facility was associated with an 18% reduction in mortality.³ It is agreed upon that patients in higher volume centers are more likely to get better investigations, surgery, adjuvant treatment, supportive care and follow-up. Though interrelated, is it the surgical volume or surgical specialization that contributes to better outcome in cancer?

One study on 4,562 surgically treated colorectal cancer patients concluded that there is a stronger association between surgical (coloproctology) specialization and beneficial outcome than with high-volume caseloads.⁶ A review of the literature from Belgium reported that the impact of the surgeon factor is considerably larger than that of adjuvant therapy.⁷ Another analysis of 1,654 ovarian cancers reported a poor prognosis with a general surgeon as the operator compared with gynecologist on a univariate, multivariate analysis and stepwise Cox's analysis.⁸

In addition, the genomic era has added yet another complexity to the existing burden of the surgical oncologist. With advances in the fields of bioncology, tissue engineering, molecular risk profiling, we are witnessing a changing era toward a surgeon

scientist. This entity is gaining much popularity in the West where in addition to organ-specific specialization, bench research forms an integral part of the program. Very soon, we would need to integrate newer biological concepts into our standard surgical approaches.

Having expressed a problem, it is time to suggest some solutions. At the same time, there is no need to reinvent the wheel. We just need to look westward and understand how the system works there. After completing their American board certification in respective specialty, one has to join fellowship programs in super specialty. Depending on the need and the program, the duration of the fellowship may vary. These fellowship programs can be tailor-made according to the existing demand rather than very general programs, such as surgical oncology or gastrointestinal surgery'. For example, a postgraduate may use fellowship in only breast surgery or a thyroid surgery. This not only promotes high degree of specialization but also allows a postgraduate to pursue one specific area of interest without wasting much of his time. We need to follow the western pattern and offer fellowship program in various specialties. This fellowship could be in head and neck oncology, gynecological oncology, orthopedic oncology, breast oncology, urologic oncology, etc. For patients, it is bound to ensure uniform and better care. For the government, it will ensure better utilization of resources rather than duplicating the facilities. For the doctors, it will save 2 to 3 years, allow better peer recognition and improve their academic or research output.

Another example of loss of credibility of the surgical oncology is the poor attendance and falling academic standards in most surgical oncology societies in India. At the same time all the specialty meetings, such as head and neck, thyroid, breast, lung and pancreatic cancer are highly attended with superior academic feast. I have no intention of downgrading our existing programs or maligning any organization. Surgical oncology was a distinct specialty a decade back and it has served India well. However, we have to keep pace with changing times and develop a strategy to phase out surgical oncology program. The recent bumper increase in MCh seats all over India is contrary to what is expected.

The need for specialization echoes in Article 4 of the Charter of Paris drafted on February 4th, 2000 during the World Summit Against Cancer for the New Millenium, held in Paris, France.⁹ As per Article 25 of the Universal Declaration of Human Rights given the ubiquitous presence of cancer and its impact on society, the parties commit to promote quality cancer care within the local economic context for all individuals. The parties, therefore, endeavor to promote intensified cancer specialization and better integration of care among medical disciplines.

During the past decades, the surgical oncologist has accepted and embraced the responsibility to provide the exemplary and comprehensive surgical service across the vast anatomical barriers. We now need to prepare ourselves and the next generation of surgical oncologists for newer challenges and incorporate new knowledge into this matrix of specialized care. I strongly believe that the present day surgical oncologist will need to integrate this sequential paradigm shift in the evolution of cancer care.

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