The need of the hour - a trained surgical oncologist

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Cancer burden in India is expected to increase by 200% over the next decade, with the rise in life expectancy, coupled with rapid urbanisation, environmental pollution and changes in life style (tobacco and changing, diet, and reproductive habits). Unfortunately we are hopelessly equipped to face this problem. The yawning gaps are discernable in trained human resource, discipline of evidence-based surgical practices and infrastructure.

Solid tumours constitute over 90% of the cancer burden globally and India is no exception. Surgery is the single most effective modality in management of solid tumours, provided it has been carried out with rigor and reason. The present Indian surgical oncology scenario is woefully inadequate and requires a vigorous impetus to train more surgical oncologists, in a properly structured programme.

Surgical oncology today is a constellation of super-specialties and the general surgical oncologist is expected to have a thorough knowledge of head and neck, breast, thoracic, Gastrointestinal, Genitourinary, Gynaecologic and Orthopaedic oncology, over and above general surgical skills. The breadth of the course also has to include knowledge of multimodal cancer treatment (including basic, medical and radiation oncology), epidemiological and molecular biological insights. The novelty and wide spectrum of thoughts should be tempered by knowledge of reliability and robustness of evidence (data) that should compel clinician/scientist to change practice or effect a paradigm shift in biological underpinnings of existing treatments.

With the rapid advances in surgical oncology, medical and radiation oncology and the newer advances in gene therapy, the surgical oncologist differs from his general surgery and other surgical colleagues in several respects. He is in a unique position to understand these divergent fields and appreciate their potential roles in treatment. For this, the surgical oncologist has to have specialised training in the different modalities of cancer treatment, which helps him to integrate these approaches in the management of an individual patient. In addition, he has to master all the unique and complicated surgical procedures, not normally performed by the general surgeon. Multimodality treatment of cancer, allows him the expertise to know which solid tumours would benefit from neoadjuvant treatment and thus allow organ preservation, instead of exenterative surgery. Thus the trained surgical oncologist can carry out organ conservation, while performing an oncologically sound radical surgery, which colleagues from other surgical disciplines are generally not trained to do. The surgical oncologist should also be involved with research in basic sciences as well as clinical trials, in order to finalise treatment protocols which would have the greatest benefit for our cancer patients. This is of particular importance in a developing country like ours, where the poor patient needs to get the maximum “bang from the buck”. Thus the surgical oncologist should direct and stimulate better investigation, treatment and also provide a critical viewpoint, as new and innovative management approaches come to the clinical arena. Thus he can assess the cost benefit ratio of newer drugs, without succumbing to the pressures of the pharmaceutical industry.

The need of the hour today is to have a trained surgical oncologist at every district level. The present curriculum needs to be refined with understanding of evidence-based management and hands on expertise for treatment of common cancers in India (rural and semi-urban). The evidence-based management protocols

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would not only allow appropriate treatment of these cancers on the spot, but will also help to evolve precise guidelines for referral. This philosophy should match availability of infrastructure for treatment and referral at hierarchical levels, at rural outpost, district general hospitals, medical colleges, regional cancer centres and premier cancer institutes. The courses should have pre-decided yardsticks of quality assurance and success.

Role in cancer prevention

Because of their knowledge of neoplastic disease and recognition of social, occupational, nutritional and sexual practices that contribute to neoplasia, the surgical oncologist has a special obligation among physicians to educate the general public as well as other doctors, in the importance and means of cancer prevention. This could include “cancer awareness lectures” (where the importance of shunning tobacco and pan masalas could be stressed), as well as “cancer detection camps” (where low cost screening procedures such as oral, breast and gynaecological examinations could be carried out). In addition, he could assess the genetically predisposed risk of a patient and carry out the necessary surveillance.

Role in clinical research

No cancer is so well treated that an improvement in outcome or newer therapeutic approach cannot be imagined. Thus research is imperative, and every oncologist’s office should be a research station. Every surgical oncologist during his or her training should be exposed to and be an active participant in, clinical research. Even after becoming a community oncologist, he can continue to ally himself with his alma mater or other academic centres, to participate in diagnostic, preventive and therapeutic research trials, using the computer, internet and fax as expedient tools. Clinical investigation should serve as the bridge to fundamental science and the excitement in the new molecular biological understanding of the cancer cell. Knowledge of clinical trials, would enable him to objectively assess the exact importance of any trial, which would have an impact on/change the existing treatment protocols.

Hence after a couple of decades, one could envision a cost-effective surgical oncology system (human resource and infrastructure), serving the existing needs of Indian populace at their doorsteps, with state-of-the-art treatment and be ready with homegrown innovations to face the future needs of our populace.