

The fast-paced technological advancement in radiation oncology: a real clinical need or just a commercial need in Indian scenario?

Editorial

I would like to clear that my views are not against the growing technology but the injudicious use of high tech treatment facilities in cancer management in India. The unjustified use of technology causes no clinical benefits in terms of local control and survival other than significant wastage of money and resources of patient and his/her relatives.

Affordability of Indian people

Sophisticated, high tech, exorbitant and star rated treatment facilities are far away from the reach of the major segment (below poverty line, lower middle class and sometimes upper middle class) of Indian population. Most of them are not covered under any health security scheme (govt/pvt). In present scenario of Indian health care, what we see that huge numbers of people are looses their life suffering from simple infectious disease like malaria, Tuberculosis etc. World Bank report, 2010 stated that 68.7% people live on less than US\$2 per day. UNICEF reports says 42% of nations children under five year age are affected by malnutrition. When we are not able to provide treatment for simple diseases and cannot provide basics livelihood and proper nutrition then the high tech, sophisticated cancer care facilities for all is just a day dreaming.

Presentation of disease

Most of the cancer cases are diagnosed in India at advanced stages because of unavailability of proper screening/early detection programme and cancer awareness. We get known localized disease only in very limited number of cancer cases. Only 10-15% cancer cases required high tech treatment facilities. In my opinion, the timely, simple treatment is more effective and justified for most of the cancer cases rather than the use of high tech treatment facilities for all cancer cases.

Availability of treatment facilities

Presently, in India, approximately 10,00,000 new cancer cases are diagnosed in each year and there is 30,00,000 people having cancer at any point of time. To deal with this huge patient load, we have only 477 Teletherapy units (Linear Accelerator: 232, Gamma knife units: 08 and Cobalt units: 237), 214 Brachytherapy units. Now to evaluate factual situation, just compare the following tabular mathematics in simple and high tech treatment techniques for teletherapy units in India. Presently, in India, more than 75% cancer patient are not getting treatment because of unavailability of treatment facilities and more than 70% cases of treated patients are treated by simple Radiotherapy techniques (equipments). In my opinion, it is better to fulfill the goal of "Treatment for All".

Compatibility of human resources

With full respect to the Radiation Oncology team (Radiation oncologist, physicist and technologist), I have a doubt that all

Volume I Issue I - 2016

Abhijit Mandal

Department of Radiotherapy and Radiation Medicine, Banaras Hindu University, India

Correspondence: Abhijit Mandal, Department Of Radiotherapy and Radiation Medicine, Banaras Hindu University, Varanasi, Tel 9415221531, Email amandal751@yahoo.co.in

Received: August 08, 2016 | **Published:** August 10, 2016

professional involved in the precise high tech radiotherapy execution have satisfactory expertise. We know that induction of a small error in precise high tech treatment will end up with unmanageable treatment failure and for patient it will be "*costliest way to miss the target and not to be cured*". These high end precise radiotherapy equipments in wrong hands will causes lots of blunder for patients, institutes and society. It is better to have journey in an old fashioned car with a trained driver (who has a good road sense) than in a latest Mercedes car with untrained driver (who has a bad road sense).

In recent days, it could be seen that a rat race is going on full swing among institutes/professionals in cancer care. Institutes/professionals claims that they have the best and latest equipments and they can treat the disease more precisely, effectively, and that means their patients are the beneficiary of clinical advantages in respect to disease control and survival but nobody have the randomized, authentic and unbiased studies/trial data in favor of their claims.

Paucity of quality research in Indian context

Now a days, when we go to conferences or see any journal published in India one can observe that content of all articles are based on high end technology (these are considered as high quality paper). Any person may have illusion that all the patients India are treated by modern day Radiotherapy equipment, by precise treatment techniques, monitored and executed by highly trained professionals. But the fact is far away from this illusion. It also appears that we have explored every aspect of conventional radiotherapy. Most of the professionals involved in cancer care facilities (Industries??) are using the American/European recommendations/guidelines in treatment of Indian patients. As we know the patients in India are quite different in terms of many medical parameters then why do we need to use copycat technique in treatment of Indian cancer patients? Why couldn't we have own recommendations/guidelines suitable for Indian patients?

Mismanagement of national cancer control program

The national cancer control program is completely aimless

and poorly organized. We do not have nationwide effective cancer screening, early detection and awareness program. During national budget, lots of funds were allocated for cancer control program but because of absence of visionary planning in nationwide cancer control, we are not even able to spend more than 60% of allocated funds. In cancer management we often forget the basic of any health disorder i.e. “prevention is better than cure”. There are some steps has been taken by banning production and selling of gutkha and tobacco chewing products, but at the same time this is not the case for cigarettes and alcohol. We are not taking any lesions by seeing the conditions of the sparrows and bees because of hazards from present day’s telecommunications without any safety norms.

Impressions

The nationwide, well planned and organized cancer screening, early detection, vaccination and awareness program will significantly reduced the national cancer load and help in increasing the number of cured cancer patients. It is the best time to see the cancer management as a whole rather than partially. All the professionals involved in cancer management should work for the best care and control of cancer. The cancer related basic/fundamental quality research should be encouraged in all platforms to explore newer dimensions in cancer management. The high end, sophisticated treatment facilities should be used judiciously and effectively. The influence of “dollar guidance” should be eliminated in the approach of “Image guidance”. All the cancer patients should be benefitted by adequate treatment.

Table I An approximate factual comparison of simple and high tech teletherapy facilities in India

	Simple teletherapy techniques	High-tech teletherapy techniques
Number of new cases/year	10,00,000	10,00,000
	≈450	≈250
Number of cases can be treated in each year by a single units	(Total working time: 420 min Average time require to treat each patient:8 min Number patient can be treated in each day=53 Each patient requires ≈30 fractions in 6weeks.With all favorable condition)	(Total working time: 420 min Average time require to treat each patient:15min Number patient can be treated in each day=28 Each patient requires ≈30 fractions in 6weeks.With all favorable condition)
Number teletherapy Units requires to manage the yearly patient load	2222	4000
Presently available units	477	240
Number of patients treated annually	≈2,14,650(if all cases treated by simple RT techniques)	≈60,000(if all cases treated by high-tech RT techniques)
Number of patients may not get any treatment(annually)	≈7,85,350	≈9,40,000

Acknowledgements

None.

Conflict of interest

Author declares that there is no conflict of interest.