



How Important is 'Check and Balance' for Cancer Treatment

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In the present era of cancer care, aggressive treatment in the norm [1-2]. Even in cancer patients with advanced disease, aggressive surgery, intensive chemotherapy and ablative radiation therapy is offered as 'standard of care' [3]. Highly expensive treatment like proton therapy or immunotherapy is offered in recurrent and metastatic cancer patients [4-5]. There may be some surrogate logic for such expensive treatment, but in reality, there is no hardcore evidence of any benefit in terms of survival function [5]. In fact, apart from some very selective cancers like lymphoma-leukemia group, there are hardly any real benefits in terms of survival functions with modern aggressive radiation therapy or surgery or chemotherapy [1].

However, may be as expectations to be cured with aggressive treatment have surged with an unrealistic velocity and physicians are willing to be more adventurous, now no tumor is 'inoperable' with advanced surgical techniques. Also, the fact is, surgeons with advanced gadgets are more confident and equipped to explore areas previously thought to be 'unexplorable'. Robotic surgeries, Video assisted surgeries (VATS) and endoscopic surgeries have made it possible to be aggressive even in comparatively inaccessible sites. Even small intra-abdominal metastatic disease like para-aortic lymph node is operable with minimal invasive techniques. Hilar-nodal mass or mediastinal nodal mass, which was inoperable even few years back are now 'operable' with EBUS or VATS. Similarly, aggressive radiation therapy with radiosurgery in portal vein thrombosis with HCC or in metastatic setting have promise, but not hardcore evidence of survival benefit.

Unfortunately, even with aggressive treatment survival outcome have not changes drastically in last few decades [1]. As survival outcome have not changed in most of the cancers, the focus has shifted to 'quality of life' and similar soft end points. 'Shifting the goalpost' to justify the 'actions' are there in cancer care as well, as we see in many of our real life situations. There are many terminologies such as 'quality adjusted life years (QALY)

or disability adjusted life years (DALY); they are used to 'quantify' these soft endpoints. But, as expected in many situations they may not represent the real situation. The socioeconomic status, social support system, dependency of the family on the patient income and such similar parameters which in turn will define the utility of QALY or DALY scores are not considered in most of the situations. These numerical values obtained from these quality of life studies and the score improvement is often only of statistical significance and may not have any real life utility.

One of the best examples is robotic surgery in gynecological and urological malignancies. Robotic surgery was initially thought to revolutionize the gynecological surgeries and should be advised for all patients. 'Improvement' in quality of life and reduction in hospital stay was supposed to reduce cost and improve morbidity [6]. However, over a period of time it was understood that the benefit may be marginal, and many patients need to be converted to open surgery because of poor visibility and larger tumour. There is a need to individualize according to the patient condition; many patients may have better exposure with laparoscopic approach than robotic surgery approach. In fact, now there is a caution alert against routine usage of robotic surgery as standard of care in gynecological malignancies. Robotic surgery in prostate cancer is another example of overt aggressive treatment in a patient cohort. In high-risk prostate cancer, even after surgery most patients need radiation therapy as well. In margin positive patients also, post-operative adjuvant radiation therapy is mandatory. 'Early salvage' in margin positive prostate cancer is now considered as the optimal treatment [7]. In both the situation, robotic surgery is considered to 'reduce' toxicity. But, majority of the patients are on indwelling catheter for more than two weeks that affect quality of life, and additional radiation therapy add only misery in these patients. Radiation therapy or surgery in appropriately selected cases as single modality have optimal outcome in these patient cohorts. Addition of robotic surgery has increased 'operability' of majority of prostate cancer patients. Neither extent of the disease nor poor

life expectancy is now considered hindrance to the procedure. However, there is no proof of improvement of survival functions. Only there are additional treatment and related morbidities apart from standard hormone therapy and surgery with its related toxicities. Inoperable pancreatic cancers explored with minimal invasive techniques usually have margin positive status and that neither eliminates other treatment modalities like radiation therapy and systemic therapies, nor there is improvement in outcome. On the other hand, radiosurgery in locally advanced prostate cancer patient need more long-term follow up data before it is offered as a routine care.

This is where 'check and balance' is a must in cancer care. In any cancer facility, excellent radiosurgery facility will keep a 'check' in the case selection of robotic prostatectomy patients. In an ideal case selection situation, in a urology unit a proportion of prostate cancer patients will be treated with surgery, a proportion will receive radiosurgery and some patients will receive brachytherapy. The proportion may vary with patient profile, and institutions but any facility will have a good mixture of all treatment modalities. This mixture of treatment modalities may judge 'appropriateness' of case selection of any facility. Similarly, well-equipped cancer surgery will reduce inappropriate case selection for radiosurgery. This 'check and balance' mechanism is critical for ethical cancer care. Well-supported medical oncology will have a check in radiation therapy; well-equipped surgery unit will streamline chemotherapy and confident radiation oncology unit will reduce borderline surgeries. Inappropriately structured specialties in any facility will promote improper treatment modality. On the other hand, combined specialty meeting, group discussion, tumour board with equal opinion value of all the participants will streamline cancer treatment modality. The fact is, 'check and balance' is mandatory for ethical functioning of cancer care as in real life.

Bibliography

1. Dandona L. "India State-Level Disease Burden Initiative Cancer Collaborators. The burden of cancer and their variations across the states of India: The Global Burden of Disease Study 1990-2016". *The Lancet Oncology* 30447-30449.
2. Meier RM., et al. "Multicentric Trial of Stereotactic Body radiation Therapy for Low and Intermediate Risk Prostate Cancer: Survival and Toxicity Endpoints". *International Journal of Radiation Oncology* 102 (2018): 296-303.
3. Schatten H. "Expanding the indications of robotic surgery in urology: A systematic review of the literature". *Arab Journal of Urology* 16 (2018): 270-284.
4. Schatten H. "Brief overview of prostate cancer statistics, grading, diagnosis and treatment strategies". *Advances in Experimental Medicine and Biology* 1095 (2018): 1-14.
5. Corkum MT., et al. "Online advertising and marketing claims by providers of proton beam therapy: are they guideline based?" *Radiation Oncology* (2018).
6. Gala RB., et al. "Systematic review of robotic surgery in gynecology: robotic techniques compared with laparoscopy and laparotomy". *Journal of Minimally Invasive Gynecology* 21 (2014): 353-361.
7. Spratt DE. "Evidence based risk stratification to guide hormone therapy use with salvage radiation therapy for prostate cancer". *International Journal of Radiation Oncology* 102 (2018): 556-560.

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