Role of radiotherapy in retinoblastoma

Dear Editor,

Congratulations to the authors, Ancona-Lizama *et al*.[1] for a comprehensive review describing lucidly the recent advances and contemporary management philosophy and practices in retinoblastoma in a review article in the previous issue. I would like to comment that these are radiosensitive tumors. Unlike yester years where radiotherapy had a major role to play in the management of these tumors, today the role may have decreased but it has not been relegated to historical importance as expressed by the authors. Clearly, radiotherapy continues to have some limited role, especially in select indications (i.e., lesions behind the equator in patients who have visual potential, optic nerve cut end positivity following enucleation, extra ocular extension, high-grade tumors, and systemic metastases).[2] Such tumors respond to radiotherapy and improve outcomes.

Radiotherapy went into disrepute after the 90s, for retinoblastomas, for variety of reasons – advent of other therapeutic modalities such as cryo therapy, photocoagulation, and chemotherapy (described well by the authors); use of relatively crude radiation practices of those times, such as high dose per fraction radiation schedules (36 Gy/9 fractions over 3 weeks), use of less sophisticated machines such as tele-cobalt units (wider penumbra, no multileaf collimator system, etc.).[3] All these factors had a significant adverse impact on the musculo skeletal growth of the orbit, in a growing child. Radiation associated second malignant neoplasm has been the other point of concern in all the pediatric malignancies.

With the current technological advances, novel beams (e.g., protons), newer techniques (3D conformal radiotherapy/intensity-modulated radiotherapy), plaque brachytherapy, rigid immobilization systems, sound anesthesia practice, and our enhanced understanding of effective fractionation schemes, I feel radiotherapy will continue to hold an important position in the therapeutic armamentarium of these tumors and therefore needs to be revisited again and

build on evidence toward multidisciplinary approach, using contemporary tools.

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