Review

The future of Radiation Oncology: Considerations of Young Medical Doctor

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Abstract

Radiation therapy plays an increasingly important role in the management of cancer. Currently, more than 50% of all cancer patients can expect to receive radiotherapy during the course of their disease, either in a primary management (radical or adjuvant radiotherapy) or for symptom control (palliative radiotherapy).

Radiation oncology is a very unique branch of medicine connected with clinical knowledge and also with medical physics. In recent years, this approach has become increasingly absorbed with technological advances. This increasing emphasis on technology, together with other important changes in the health-care economic environment, now place the specialty of radiation oncology in a precarious position. New treatment technologies are evolving at a rate unprecedented in radiation therapy, paralleled by improvements in computer hardware and software. These techniques allow assessment of changes in the tumour volume and its location during the course of therapy (interfraction motion) so that re-planning can adjust for such changes in an adaptive radiotherapy process.

If radiation oncologists become simply the guardians of a single therapeutic modality they may find that time marches by and, while the techniques will live on, the specialty may not. This article discusses these threats to the field and examines strategies by which we may evolve, diversify, and thrive.

Keywords
Radiation oncology; Perspectives; Challenges