

As the leading cause of cancer-related death worldwide, lung cancer's significance cannot be overstated. Radiotherapy continues to be an indispensable tool in the treatment of lung cancer. For localized disease, radiotherapy can be curative, whether it is stereotactic body radiation therapy (SBRT) for early-stage disease or chemoradiation for locally advanced disease. In advanced disease, radiotherapy is one of the most effective tools for palliation of symptoms and control of brain metastasis. However, the sobering reality remains that lung cancer is a deadly disease for most who develop it, and much more progress must be made.

In recent years, multiple exciting and impactful developments have occurred in lung cancer radiation, for all stages of disease. The chapters of this book comprise an indispensable and up-to-date overview of the current state of lung cancer radiotherapy, the recent advances that have been made, and the questions and frontiers that remain to be explored.

For early-stage disease, SBRT has truly ushered in a new era of effective management for inoperable patients. It is no longer an emerging therapy but a new standard of care for those who are not surgical candidates. The question is no longer whether SBRT is effective, but whether it can be considered a suitable alternative to resection even in those patients who are eligible for surgery.

For locally advanced disease, immunotherapy has emerged as a highly promising adjunct to standard chemoradiation. Major unanswered questions include whether proton therapy has a significant clinical benefit, and whether postoperative radiation improves survival in resected patients with N2 disease. Both of these questions are the subject of ongoing multi-center randomized trials.

For metastatic disease, the emergence of targeted agents, such as tyrosine kinase inhibitors for EGFR-mutated cancers, has greatly changed not only the prognosis of certain subsets of NSCLC patients, but the role of radiation as well. The CNS activity of certain targeted agents suggests that cranial radiation need not always be first-line therapy for brain metastasis, potentially reducing the role of radiation. On the other hand, NSCLC patients with targetable mutations such as EGFR may be prime candidates for the early integration of radiation therapy, potentially increasing the role of radiation.

These brief comments only scratch the surface of the meaningful advances, impactful data, and provocative new questions that have arisen in the last few years. The articles in this book, reflecting contributions from many esteemed experts who have been at the forefront of these new developments, will provide the reader with an excellent overview of the current state of lung cancer radiotherapy. It is a distinct pleasure and honor for me to present and introduce them to you.



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