
Preface

Numerous renowned textbooks comprehensively describe current concepts in radiation treatment of malignant diseases. Depending on health care system and country, national and institutional guidelines provide a framework for stage-adapted radiotherapy as part of multidisciplinary approaches. However, beyond curative situations and initial treatment for recurrent and metastatic disease, treatment often is tailored on a more and more individual basis. Whether or not a repeat definitive course of radiotherapy to a previously irradiated target volume (reirradiation) might be offered depends on many variables including institutional traditions and policy as well as training and experience of the involved physicians. For several years, the number of peer reviewed publications on reirradiation has increased. The concepts described by different authors have varied tremendously. Therefore, the series editors of the Medical Radiology—Radiation Oncology book series felt an urgent need to provide a textbook dedicated solely to the complex issue of reirradiation.

Radiation Oncology as a specialty has benefited from a soaring technological revolution, and it is now possible to target therapies much more precisely and safely than in the past. Especially in the context of reirradiation, where normal tissues and critical organs might receive high cumulative radiation doses these developments open new possibilities. It is critically important, however, that the radiation oncologist is knowledgeable not only in terms of new developments in radiation technology, but also concerning radiobiology and clinical side effects of reirradiation. Not every treatment that is technically feasible and provides appealing dose distributions benefits our patients in the long run. Issues such as treatment progression in other regions of the body, performance status, acute and late toxicity and quality of life are tremendously important when treatment decisions have to be made.

The purpose of this book is to provide the practicing radiation oncologists, as well as those in training, with a concise overview of the most important and up-to-date information pertaining to reirradiation and its combination with other therapies such as hyperthermia, chemotherapy or targeted agents. This information might also be useful for other medical disciplines referring patients for radiation treatment.

It is the intent of the editors to provide chapters from experts in not only the technological basis of treatment, but also in clinical care. In addition, the book contains a considerable number of clinical examples that might guide decision making. Many clinical disease entities are covered. However, due to a lack of systematic data sites such as skin, esophageal and pancreatic cancer could not

be included. The same is true for lymphoma, despite the fact that a very simple and well tolerated schedule of two fractions of 2 Gy can be administered in a proportion of patients with non-Hodgkin's lymphoma. Bladder cancer is not included because the bladder is one of the few organs without long-term recovery after radiation treatment, precluding high cumulative doses from re-irradiation. Regarding treatment of non-malignant disorders the readers are referred to an excellent volume in our book series edited by Seegenschmiedt, Makoski, Trott and Brady that was published just 2 years ago.

We are most grateful for the enthusiasm and discipline all chapter authors showed during preparation of this volume and for the fruitful discussion with many colleagues as well as excellent support from the publisher. We hope that the reader will find this book to be a useful guide to reirradiation and encourage feed back regarding own clinical experience that might or might not agree with the recommendations provided here. Only continued basic and clinical research will provide a better basis for more standardized and widely applicable treatment regimens. All readers will rapidly understand in which areas high level evidence needs to be generated, that tremendous research opportunities exist and that cooperative groups also should be encouraged to design a larger number of prospective clinical trials.

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