
Preface

Radiation therapy, used alone or in combination with chemotherapeutic agents and/or surgery, is a standard approach to the treatment of a variety of pelvic malignancies. These treatments, along with earlier diagnosis from improved imaging modalities and increased disease awareness, have resulted in higher documented survival rates in patients with cervical, ovarian, prostate, rectal, and bladder cancers, regardless of the stage of disease at the time of diagnosis. As long-term survival and cure has become a reality for patients, including those with advanced pelvic cancers, survivors are faced with the challenge of living with the untoward consequences of their medical and surgical treatments. There have been many advances in the delivery of radiation therapy, including computer-aided dosimetric analysis, intensity modulated radiation therapy (IMRT), brachytherapy, megavoltage equipment, radioprotective techniques and compounds, alternative dosage regimen and image guided therapy—just to name a few. Nonetheless, a significant proportion of patients receiving treatment for pelvic malignancies may yet sustain acute, and sometimes chronic injuries of surrounding pelvic organs. Radiation-induced organ damage may be compounded by the aftermath of aggressive surgery, leaving reduced rectal, bladder, or vaginal capacities, and by toxic effects of chemotherapy, including neurologic and vascular damage. In the modern era of multimodality therapy, pelvic toxicities that occur when radiation therapy is used in combination with other therapies, either before, during or after radiotherapy, should be referred to as *treatment-related*, as opposed to simply *radiation-induced* toxicity.

In general, chronic radiation (or treatment related) injury may result in dysfunction of the bladder and bowel. Sexual dysfunction, infertility, and early menopause are also anticipated in patients receiving radiation therapy for ovarian, cervical, endometrial, and vaginal cancers. Less-commonly encountered problems in patients receiving radiation therapy include pelvic and sacral insufficiency fractures and lumbosacral plexopathy. Unfortunately, patients often suffer in silence with pelvic organ injuries rather than report embarrassing symptoms to their physicians and other healthcare providers. The small body of published research

in the medical literature clearly demonstrates that symptoms of treatment-related injury and other negative outcomes in patients with pelvic malignancies have profound effects on quality of life.

There is an extant body of literature on treatment-related injury and other consequences occurring after therapy for pelvic malignancies. However, information on this topic has generally been compartmentalized to the specific organ system in which symptoms occur. Thus, studies of female sexual dysfunction following radiation therapy are published in the gynecologic literature; clinical trials for radiation proctopathy are found in gastroenterology journals, while studies on the effects of these treatments on bladder function are relegated to urologic texts. The opportunity to combine the efforts of an internationally recognized group of specialists on these conditions to provide a single reference on the entire spectrum of treatment-related pelvic injury was the impetus for the creation of this book.

Our book provides a review of the clinical use of radiation therapy for gynecologic, urologic, and gastrointestinal cancers. It then follows with a summary of clinical and pathologic findings seen with acute and chronic treatment-induced pelvic injuries. Diagnostic modalities and potential treatments are featured. In addition, a thoughtful chapter on female sexual function and quality of life after treatment for pelvic malignancies is included—a subject that is just beginning to be explored. In combining these topics into one volume, this book is intended to promote an overall appreciation and improved understanding of the complex issues affecting patients undergoing treatment for pelvic malignancies. It is the sincere wish of its authors and editors that this knowledge, in turn, will produce a meaningful improvement in the clinical management and general well being of this complex group of patients.

July 8th, 2014

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Radiation Therapy for Pelvic Malignancy and its
Consequences

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2015, XIV, 230 p. 43 illus., 31 illus. in color., Hardcover

ISBN: 978-1-4939-2216-1