Oncofertility Medical Practice

Clarisa Gracia · Teresa K. Woodruff
Editors

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Clinical Issues and Implementation

Springer

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Foreword

Oncofertility has emerged as an important field in reproductive medicine. With important advances in cancer treatment now allowing many men and women to live full and productive lives, reproductive concerns emerge as being of great importance for overall quality of life and fulfillment. Also, in recent years, we have witnessed advances in our understanding and appreciation of gonadal and gamete biology, allowing assisted reproductive technologies to offer great promise for preserving the reproductive function of cancer survivors.

This book, edited by Clarisa Gracia and Teresa Woodruff, is a state-of-the-art treatise on all clinical aspects of oncofertility. It is the third in a series of books on this subject, the first two dwelling on basic science and sociological and humanity issues. This multiauthored and multidisciplinary text, by leaders in the field, accomplishes its goal of providing clinicians and researchers the ability to help cancer survivors achieve a long-term quality of life.

Oncofertility Medical Practice: Clinical Issues and Implementation is timely, practical, and comprehensive and is divided into several important parts. Part I sets the stage in describing the fertility risks of cancer patients. Next, Part II provides several options for both males and females. In Part III, the care of the patient is highlighted in terms of social and bioethical issues which affect cancer survivors, as well as dealing with pregnancy. The remainder of this book is unique in that it provides very practical advice. Part IV explains the “nuts and bolts” of clinical practice in oncofertility, including chapters on setting up a program, patient navigation, and preparing an educational and research training program. In Part V, clinical cases in oncofertility are presented. The Appendix provides valuable resources for the clinician and researcher adapted from the National Physicians Cooperative of the Oncofertility Consortium. This includes information pertinent for IRB and FDA applications, patient consent forms, and letter templates to aid patients with issues of reimbursement for treatment.

This excellent text is an invaluable resource and a “must read” for clinicians and researchers interested in oncofertility. The editors and authors need to be congratulated for their fine work.

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Preface

More than 100,000 females younger than 45 years of age are diagnosed with cancer annually; of these, approximately 12,400 are children younger than 20 years of age [1, 2]. Over the past four decades, advances in cancer therapies, particularly chemotherapeutics, have led to dramatic improvements in survival [3]. Given that more patients are surviving their cancer, care has now expanded to include improving long-term health and quality of life. One of the most important quality-of-life issues in reproductive-age cancer survivors is the ability to have biological children [4–6]. Unfortunately, cancer therapies—including chemotherapy, radiotherapy, and some surgical procedures—increase the risk of infertility and gonadal failure in both males and females.

Given the reproductive risks of cancer therapies, as well as the improved long-term survival made possible by these therapies, there has been growing interest in expanding future reproductive options for cancer patients. Indeed, both cancer survivors and the medical community have acknowledged the importance of patient counseling and pursuit of fertility preservation options prior to starting potentially gonadotoxic cancer treatment. In 2006, the American Society of Clinical Oncology published recommendations on fertility preservation, stating, “As part of education and informed consent before cancer therapy, oncologists should address the possibility of infertility with patients treated during their reproductive years and be prepared to discuss possible fertility preservation options or refer patients to reproductive specialists” [7]. Similarly, the American Society of Reproductive Medicine has encouraged clinicians to offer cancer patients available technologies for fertility preservation, stating, “If damage to reproductive organs from treatment is unavoidable, cryopreserving gametes, embryos, or gonadal tissue may help to preserve fertility” [8]. Despite these recommendations, fertility preservation services continue to be underutilized [9].

The field of oncofertility is focused on addressing this unmet need in a multidisciplinary manner [10]. Indeed, the practice of oncofertility necessarily bridges a variety of disciplines, including oncology, urology, reproductive endocrinology, psychology, and philosophy. This book is intended to provide a comprehensive overview of the clinical aspects of oncofertility and is appropriately authored by

experts in a variety of disciplines involved in providing fertility preservation options to cancer patients. It is primarily targeted to clinicians and researchers who wish to gain up-to-date information about the risks of cancer therapies, learn about options to preserve future reproductive potential in patients with cancer, understand the ethical and psychosocial issues impacting the practice of oncofertility, and learn strategies for setting up an oncofertility program. Two other books have been published that describe advances in oncofertility basic science research [2] and the perspectives of the social sciences and the humanities on fertility preservation for cancer patients [6]. Taken together, these three volumes serve as comprehensive and essential reading on the various facets of the field of oncofertility.

This book is divided into five parts. Part I provides current information regarding the reproductive risks of cancer therapies in females and males. Part II reviews available fertility preserving technologies from experts in the field. Standard and experimental options are presented for both male and female patients. Part III highlights important psychosocial and ethical issues in the field, with a particular focus on communication between patients and health-care providers. In addition, risks of pregnancy during and after a cancer diagnosis are discussed. Part IV includes practical guidance on how to establish an oncofertility clinical program and how to train future generations of oncofertility specialists. Valuable resources from the National Physician's Cooperative of the Oncofertility Consortium are presented in the Appendix, including templates for obtaining IRB approval for investigational fertility preservation strategies, marketing brochures, and online resources for patients and providers. The final section, Part V, includes clinical cases that highlight strategies and challenges in the care of the oncofertility patient.

As more clinicians become aware of the field of oncofertility and begin to offer their patients evidence-based counseling regarding the risks of cancer therapies and options available for having future biological children, we can expect to see improvements in the long-term quality of life of cancer survivors. We hope that the information and resources provided in this book help us to accomplish that goal.

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