The list of unmet clinical needs in prostate cancer is long. Although the problems of overdiagnosis and overtreatment of prostate cancer are increasingly acknowledged by the medical community, the fact remains that this disease is still the second most common cause of cancer-related deaths in men. Nevertheless, significant progress has been made toward characterizing the complex biology of this disease, and advances in imaging techniques that improve the detection of clinically significant cancers have occurred in recent years. In Molecular & Diagnostic Imaging in Prostate Cancer: Clinical Applications and Treatment Strategies, experts from various disciplines discuss these latest developments in the diagnosis and management of prostate cancer.

Chapter 1 describes the evolution of androgen deprivation therapy from its origins to the development of the latest hormonal compounds, as well as the various treatment regimens currently in use or under investigation. This same topic is addressed in Chapter 7, which expands the discussion to include the management of castration-resistant prostate cancer. Treatment modalities beyond hormonal therapy, such as chemotherapy, immunotherapy, and radionuclide therapy, are also discussed in chapter 7.

Chapter 2 discusses advances in radiotherapy for prostate cancer, providing a comprehensive description of the pros and cons of this treatment strategy and the challenges and potential applications of various radiotherapy techniques.

Magnetic resonance imaging (MRI) is the main topic of three chapters. Chapter 3 is devoted to prostate cancer active surveillance. This chapter reviews the patient selection criteria and monitoring strategies for active surveillance and the roles of MRI and MRI-transrectal ultrasound (TRUS) fusion biopsy in this setting. Chapter 5 focuses on the use of MRI and MRI-TRUS fusion biopsy for the initial detection of prostate cancer. Finally, Chapter 9 further discusses MRI-guided interventions, comprehensively addressing the various types of MRI-guided biopsies and MRI-guided therapies available for different phases of the disease.

An informative discussion regarding current biopsy modalities, tissue handling techniques, and how to interpret and report prostate biopsy results is provided in Chapter 4.

Developments in the areas of nanoparticle probes and peptide-based radiopharmaceuticals for imaging and treating prostate cancer are discussed in Chapters 6 and 8, respectively. One notable limitation in this discussion is the relatively succinct description of agents targeted to the PSMA molecule, which are poised to become mainstay agents for prostate cancer theranostics.

In Chapter 10, the editor provides an overview of the different categories of immunotherapies and their potential role in prostate cancer treatment (still in the early stages of development for this particular indication).

This book could have benefited from more cohesive formatting of the chapters and greater use of tables and bullet points to summarize key messages; however, the chapters are overall well-written, and the evidence described is as up to date as possible in this evolving field. The broad range of topics covered by the chapters makes this book a good resource for scientists and clinicians from various disciplines.

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