Kidney cancer, more than any other malignancy, has undergone a fundamental transformation over the past decade, with seminal discoveries related to tumor biology and prognostication, molecular genetics, and pathologic classification. The evaluation and management of this disease has likewise been revolutionized by the introduction of novel targeted agents and innovative surgical approaches. This textbook provides a timely update on these advances with a strong emphasis on clinical management.

A greater appreciation of the importance of renal function and competing risks have complicated management for patients with localized disease, and there are now a wide spectrum of options ranging from active surveillance to surgical excision, much of which can now be accomplished through minimally invasive techniques. Partial nephrectomy is now established as the reference standard, but overtreatment remains a major concern. The role of biopsy is still debated, and efforts to provide truly rational care for this sizeable group of patients remain a work in progress.

Locally advanced kidney cancer has always been primarily a surgical domain, yet increased response rates with targeted agents, particularly in the primary tumor, have stimulated efforts to reassess treatment paradigms, with neoadjuvant protocols followed by consolidative surgery being investigated more intensively. The optimal approaches to integrate surgery and targeted therapies remain controversial, although there is a strong consensus that there are great opportunities to improve management for this challenging patient population.

Advanced kidney cancer has seen perhaps the greatest transformation with extended survival and better quality of life now a reasonable expectation for many patients with metastatic disease. A fundamental comprehension of the VEGF, mTOR, and related pathways is a key to understanding where we are now and how we will move into the future. Again, integration of surgery has been revisited with new perspectives. While targeted molecular agents have moved to the forefront, immunotherapy, both conventional and investigational, still holds promise for many patients. All of these advances are reviewed with an emphasis on routine clinical management along with the many unique challenges that are often encountered in this field.

We are grateful to all of our authors for their outstanding contributions and trust that you will find this textbook up-to-date and informative. We have been fortunate to have international leaders in each branch of the field participate.
and provide their expertise for this textbook, which should serve as a resource for educating physicians about kidney cancer and ultimately should advance the care of patients with this malignancy.

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