Contemporary Issues in Cancer Imaging
A Multidisciplinary Approach

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Gastric Cancer
Primary Carcinomas of the Liver
Breast Cancer
Interventional Radiological Treatment of Liver Tumors

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Imaging has become pivotal in all aspects of the management of patients with cancer. At the same time, it is acknowledged that optimal patient care is best achieved by a multidisciplinary team approach. The explosion of technological developments in imaging over the past years has meant that all members of the multidisciplinary team should understand the potential applications, limitations, and advantages of all the evolving and exciting imaging techniques. Equally, to understand the significance of the imaging findings and to contribute actively to management decisions and to the development of new clinical applications for imaging, it is critical that the radiologist should have sufficient background knowledge of different tumors. Thus the radiologist should understand the pathology, the clinical background, the therapeutic options, and prognostic indicators of malignancy.

Contemporary Issues in Cancer Imaging – A Multidisciplinary Approach aims to meet the growing requirement for radiologists to have detailed knowledge of the individual tumors in which they are involved in making management decisions. A series of single-subject issues, each of which will be dedicated to a single tumor site, edited by recognized expert guest editors, will include contributions from basic scientists, pathologists, surgeons, oncologists, radiologists, and others.

While the series is written predominantly for the radiologist, it is hoped that individual issues will contain sufficiently varied information so as to be of interest to all medical disciplines and to other health professionals managing patients with cancer. As with imaging, advances have occurred in all these disciplines related to cancer management, and it is our fervent hope that this series, bringing together expertise from such a range of related specialties, will not only promote the understanding and rational application of modern imaging but will also help to achieve the ultimate goal of improving outcomes for patients with cancer.

Rodney H. Reznek
Preface to Interventional Radiological Treatment of Liver Tumors

The care of patients with malignant tumors has changed substantially in recent years. New chemotherapeutic agents have led to substantial prolongation of survival in patients with liver metastases. Advances in surgery and anesthesia have enabled the resection of tumors with much lower morbidity and mortality. Diagnostic imaging techniques have facilitated earlier detection and more detailed follow-up of patients with liver tumors. However, the most exciting advances have been in the field of interventional radiology. Percutaneous ethanol injection, which has been used most effectively and extensively in the Far East, demonstrated that it is possible to completely destroy small hepatocellular carcinomas, obviating the need for surgical removal. This paved the way for the development of other local methods of treatment based on heating or freezing malignant tumors.

This book describes the state of the art in one of the most exciting fields in modern medicine. The authors are all world authorities in their field. The volume focuses on interventional radiological techniques but also provides a summary of the pathology of liver tumors, as well as an account of modern medical and surgical methods of treatment.

We are still in the early stages of local tumor treatment. The early results are very promising, and it is very likely that, in time, traditional surgical techniques will be increasingly supplemented by image-guided methods. Coupled with advances in structural and functional imaging, these advances offer the hope that a substantial proportion of patients with hepatic malignancy can be treated effectively.

Andy Adam and Peter R. Mueller