

# Oncologic and Cardiac PET/CT-Diagnosis: An Interdisciplinary Atlas and Manual

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PET has been the imaging technique most rapidly accepted into clinical practice during the last decade. In the last 5 years, PET/CT has taken the place of coregistration and become a standard diagnostic method in the management of cancer patients. Its advantages—precise localization of metabolically active lesions, CT characterization of lesions, and additional detection of small or inactive lesions on high-resolution CT—are increasingly recognized. PET/CT fusion also shortens the total imaging time and spares the patient the need for two visits to the nuclear physician and radiologist.

The portion of this book dealing with oncology is updated information based on *PET/CT-Atlas*, a German-language book by Mohnicke and Hör, published in 2006. In addition, the book covers the use of PET/CT in cardiology, an important indication that has received the required attention in the form of an important contribution by Schelbert. The compilation and publication of this English-language book was a real challenge but quite successful.

The book is organized into 17 chapters. Chapter 1 deals with the past and present uses of PET, its technologic developments, and its variants. Chapter 2 covers the fundamentals of PET/CT. Other chapters present numerous case studies discussing the use of PET/CT in pneumology (15 cases), gastroenterology (44 cases), gynecology (38 cases), urology (27 cases), head and neck tumors (17 cases), dermatology (5 cases), lymphomas (11 cases), oncologic orthopedics (8 cases), pediatric oncology (12 cases), and

unknown primary tumors (12 cases). Chapter 13 handles pitfalls in PET/CT, as discussed through 39 case studies. Chapter 14 deals with PET/CT for radiotherapy and includes 6 case studies. Chapter 15 covers nuclear cardiology in Europe, with 4 case studies, and chapter 16 handles cardiac PET and PET/CT in the United States. A final chapter discusses molecular PET and medicine. Each case presented in the book includes a brief clinical history, imaging findings, and teaching points. The images are clear and well done. The case studies document how PET/CT opens new diagnostic options for patients when conventional examinations fail. Updated references are included in each chapter, and the subject index is properly selected.

This book meets the editors' intention of describing the strengths of PET/CT, its current limitations, and its developmental potential. An accompanying DVD includes a comprehensive overview of additional literature, the entire text in electronic form, and several case studies. I highly recommend this book as a quick reference to nuclear physicians and radiologists in practice or in training. This atlas and manual will also be useful to oncologists, cardiologists, and imaging technologists.

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