

Sectional Anatomy: PET/CT and SPECT/CT

E.E. Kim, M.V. Mar, T. Inoue, and J.-K. Chung, eds.

New York, NY: Springer, 2007, 468 pages, \$169

This book is an image-based guide to the sectional anatomy of fusion images obtained with PET/CT and SPECT/CT scanners. Given the rapid rise of fused imaging in recent years, a comprehensive atlas of fused images has long been in the calling. The book is aimed primarily at clinicians who routinely interpret images and is a useful reference for most molecular imaging probes currently used with PET/CT and SPECT/CT.

The book is organized into 2 parts. The first part covers normal anatomy seen on PET/CT and SPECT/CT images. The first 2 chapters of this section cover PET/CT findings—not only for conventional ^{18}F -FDG imaging but also the anatomy seen with other PET tracers, such as ^{18}F -fluoride and ^{11}C -methionine. The subsequent 6 chapters cover SPECT/CT and its most important tracers, ranging from bone scanning to octreotide imaging.

The second part of the book illustrates anatomic variations and artifacts seen on PET/CT and SPECT/CT images. Here, the reader encounters not only typical physiologic variations of tracer uptake but also, although not noted in the section title, some pathologic findings. Overall, this part of the book lacks a clear organizational structure, mixing physiologic and pathologic findings somewhat randomly.

The chapters generally progress through coronal, sagittal, and axial images, with CT, fused images, and PET or SPECT images arranged side by side. Numbered arrows in the

images point out the respective anatomic structures named in the accompanying text. The images are of high quality, although the size of some is rather small. In addition, the lack of uniformity in the color coding of the fused images can be distracting. Some inconsistencies exist in the appropriate CT window and should be corrected in a subsequent edition.

Apart from a short introductory remark at the beginning of each chapter, there is no text in the book. Given that this is an atlas, the lack of text may seem appropriate. But unlike anatomic imaging, molecular imaging has results that depend somewhat on the imaging protocol used (uptake times, tracer doses, attenuation-corrected vs. noncorrected). Information on the protocols used to acquire the displayed images would be desirable and helpful.

Several atlases of fused imaging, mostly covering PET/CT, have been published in recent years. However, none has attempted to encompass the entire range of anatomic and molecular image fusion currently available in clinical practice. Despite some shortcomings, this book would be a valuable resource for anyone reading PET/CT and SPECT/CT images, providing nuclear medicine and radiology physicians, especially, with a practical reference for image interpretation.

Martin Allen-Auerbach
UCLA
Los Angeles, California