
Imaging in Transplantation

A.A. Bankier, ed.

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Imaging in Transplantation is one in a series of textbooks on medical radiology and diagnostic imaging. The editors have achieved their primary stated goal of providing nonspecialized radiologists with easily accessible, comprehensive information covering both essential and routine-but-relevant diagnostic topics in transplantation imaging. This well-written book is a collaboration by authors from Europe, the United Kingdom, and the United States and covers the entire spectrum of currently available organ transplantations in humans. The topics comprise both solid-organ transplantation, including the heart, kidneys, liver, lung, pancreas, and intestines, and bone marrow transplantation.

The first chapter is an overview of solid-organ transplantation and introduces the reader to the field, starting with the historical background and going on to describe organ procurement, patient selection criteria, immune response to allograft and xenograft, diagnosis of graft function and treatment complications, and the role of imaging in the evaluation of both living and cadaveric donors and the recipient. The chapter also includes an important section—both interesting and informative—on the cost of transplantation in general and differences in the cost between Europe and the United States.

Chapters 2 through 6 cover transplantation of the heart, kidneys, liver, lungs, and bone marrow. The first section in each chapter deals with epidemiologic, clinical, and surgical considerations, including different surgical techniques, and the second is devoted to imaging, thereby ensuring flow and continuity throughout the book. The chapter on bone marrow transplantation focuses on indications and techniques and describes the gamut of complications, including graft failure, opportunistic infections, graft versus host disease, and others.

The final chapter, chapter 7, comprises sections on pancreatic transplantation and on intestinal transplantation. Both sections cover organ procurement; complications during and after transplantation; various imaging modalities, techniques, and findings; and complications specific to particular transplants and to vascular grafts. The section on intestinal transplants also covers liver-intestinal transplantation, including imaging modalities and abnormalities.

This book has 213 figures in 424 separate illustrations, 99 of which are in color. The illustrations are excellent in showing the findings. Every chapter is supported by

relevant, high-quality images, many of which include arrows identifying the abnormality. However, other images could have been improved by the addition of arrows for the benefit of nonradiologists, thereby ensuring a wider readership for the book. The pages have a glossy finish that showcases the images well. The images comprise many CT scans, including contrast-enhanced multidetector axial images; many MR images; ultrasound and color Doppler ultrasonograms; volume-rendered and axial CT angiograms; a few plain radiographs and arteriograms; a few MR angiograms and digital subtracted angiograms; and an occasional upper gastrointestinal series or retrograde intestinal enema. The accompanying legends clearly identify and explain the radiographic or histopathologic abnormality. Some color histologic slides of microscopic pathology, occasional photographs of patients showing cutaneous pathologic findings in graft versus host reaction, and occasional gross cadaver graft specimens are also included. Future editions can be improved by the addition of radionuclide imaging of acute infection and imaging of renal transplants or PET/CT in lymphomas and other tumors so as to complete the imaging spectrum.

The chapters are well researched and supported by a good number of references. The 15 tables are relevant, useful, simple, and effective. In the clinical sections, the clinical background information blends well and reinforces the state-of-the-art radiologic images, thus meeting the second stated goal of the editors in providing and enforcing a multidisciplinary approach to diagnostic imaging in the field of transplantation medicine.

Overall, this book provides a good overview of the field and includes concepts, facts, and images needed for a basic understanding of all stages of individual organ transplantation. I highly recommend this book to surgeons, radiologists, internists, and other subspecialists in internal medicine who are active in the field. Besides the high-quality images, the wealth of information in the text will help practitioners to evaluate and understand patients better. By affording one a good look at the short-term clinical complications of transplantation surgery and the long-term effects of immunosuppression to keep the graft functioning, this book will be a useful addition to many hospital libraries for reference by residents and physicians confronted with the many acute and chronic problems that can occur before and after organ transplantation. Now that transplant patients are living longer because of better care and medicines, more and newer problems are emerging in these patients. This book can help one

to understand and be aware of some of these problems, thereby realizing the editor's third stated goal of increasing general awareness of the many issues facing the field of organ transplantation. Although the book will be most useful to residents and students, it will also improve or reinforce the knowledge of senior physicians and radiolo-

gist and would make a good addition to their personal libraries.

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