
This comprehensive reference covers the principles and techniques used in performing breast elastography, an innovative imaging technology that can dramatically reduce the need for biopsies. The book begins with an introduction of the techniques, followed by sections on how to perform each technique and methods of interpretation, and concludes with more than 60 detailed case studies. Key Features: Includes case studies covering a wide range of breast pathologies and illustrating the use of all available elastography techniques to help radiologists obtain the best images for each pathology Covers all methods of breast elastography, including shear wave and strain wave Contains more than 200 high-quality color images that demonstrate how to perform each technique Breast Elastography is an essential reference for all radiologists, residents and fellows, and sonographers involved in breast imaging and evaluation. This volume is a complete and definitive guide to performing and interpreting breast ultrasound examinations. The book explains every aspect of the examination in detail—from equipment selection and examining techniques, to correlations between sonographic and mammographic findings, to precise characterization of sonographic abnormalities. A chapter on Doppler characterization of breast lesions is included. Complementing the text are more than 1,500 illustrations, including ultrasound scans, corresponding mammographic images, and diagrams of key aspects of the examination. This book is a comprehensive guide to contrast-enhanced mammography (CEM), a novel advanced mammography technique using dual-energy mammography in combination with intravenous contrast administration in order to increase the diagnostic performance of digital mammography. Readers will find helpful information on the principles of CEM and indications for the technique. Detailed attention is devoted to image interpretation, with presentation of case examples and highlighting of pitfalls and artifacts. Other topics to be addressed include the establishment of a CEM program, the comparative merits of CEM and MRI, and the roles of CEM in screening populations and monitoring of response to neoadjuvant chemotherapy. CEM became commercially available in 2011 and is increasingly being used in clinical practice owing to its superiority over full-field digital mammography. This book will be an ideal source of knowledge and guidance for all who wish to start using the technique or to learn more about it. In 2002, Lippincott published the Manual of Breast Diseases, edited by Professor Ismail Jatoi. The current book, Management of Breast Diseases, is an adaptation of that manual, with Professor Manfred Kaufmann of the Goethe-University of Frankfurt serving as co-editor. Most of the chapters from the original manual have been either extensively revised or discarded, and several new chapters added. This text contains more material than the original manual, but it is still intended as a basic guide for the wide spectrum of clinicians (surgeons, gynecologists, oncologists, radiation oncologists, internists, general practitioners) who treat breast diseases, both benign and malignant. To compile this text, we assembled experts from throughout the world. Thus, this text provides not only a broad overview of breast diseases, but also highlights different perspectives from different parts of the world. Yet, it is worth noting that the management of breast cancer is now largely predicated on evidence-based medicine. Several large, randomized prospective trials have demonstrated the efficacy of breast cancer screening and chemoprevention. Other large trials have addressed the impact of systemic therapy, radiotherapy, and variations in local therapy on breast cancer mortality. Many of these landmark trials are discussed in this text, and they clearly have had a benefi cial eff ect. Indeed, since about 1990, breast cancer mortality rates have declined substantially in most industrialized countries, and this trend is expected to continue in the years ahead. Digital Radiography has been established in diagnostic radiology during the last decade. Because of the special requirements of high contrast and spatial resolution needed for roentgen mammography, it took some more time to develop digital mammography as a routine radiological tool. Recent technological progress in detector and screen design as well as increased experience with computer applications for image processing have now enabled Digital Mammography to become a mature modality that opens new perspectives for the diagnosis of breast diseases. The editors of this timely new volume Prof. Dr. U. Bick and Dr. F. Diekmann, both well-known international leaders in breast imaging, have for many years been very active in the frontiers of theoretical and translational clinical research, needed to bring digital mammography nally into the sphere of daily clinical radiology. I am very much indebted to the editors as well as to the other internationally recognized experts in the field for their outstanding state of the art contributions to this volume. It is indeed an excellent handbook that covers in depth all aspects of Digital Mammography and thus further enriches our book series Medical Radiology. The highly informative text as well as the numerous well-chosen superb illustrations will enable radiologists as well as radiologists in training to deepen their knowledge in modern breast imaging. Designed in a small-format for practical reading and point-of-care setting use, this work presents the most up-to-date concepts on breast diseases. The main objective of this book is to propagate current knowledge of the most frequent breast diseases, being a quick reference, evidence-based manual covering the major clinical scenarios in mastology. The essence of the work can be summarized in the following sentence: "access to maximum content in the least amount of time." The book contains data that will allow readers to understand and treat patients with different complaints and diseases. Each chapter presents a flow chart and a summary of the five major publications on the subject. This is unique in comparison with other books in this medical specialty. Developed by a team of
international expert specialists who deal with breast pathologies on a daily basis, the book also includes additional contributions from experienced, renowned professionals in interdisciplinary specialties related to the main area. This book will be of interest to physicians who deal with breast diseases and wish to improve their knowledge through exposure to state-of-the-art data and best practices advice. It is also directed to medical students and residents in training within mastology. (This title was originally published in Portuguese by the Brazilian publisher Atheneu in 2011 and has sold very well and gone into a third edition, published in 2017. The Editors have all English language rights, detailed in the attached contract, although it is in Portuguese). Featuring over 1,500 mammographic images, this atlas is a comprehensive guide to interpreting mammograms. It presents the full spectrum of manifestations of breast diseases, as well as cases involving the postsurgical and augmented breast. Chapters are organized according to the pattern seen on the mammogram to develop readers' pattern recognition skills and to allow quick and complete definition of etiologies and clinical implications for a particular finding. This edition includes new chapters on the augmented breast, the role of ultrasound and MRI in breast imaging, and imaging-guided breast interventions. The terminology of the BI-RADS® lexicon is used throughout. This book offers a comprehensive, practical resource entirely devoted to Contrast-Enhanced Digital Mammography (CEDM), a state-of-the-art technique that has emerged as a valuable addition to conventional imaging modalities in the detection of primary and recurrent breast cancer, and as an important preoperative staging tool for women with breast cancer. CEDM is a relatively new breast imaging technique based on dual energy acquisition, combining mammography with iodine-based contrast agents to display contrast uptake in breast lesions. It improves the sensitivity and specificity of breast cancer detection by providing higher foci to breast-gland contrast and better lesion delineation than digital mammography. Preliminary results suggest that CEDM is comparable to breast MRI for evaluating the extent and size of lesions and detecting multifocal lesions, and thus has the potential to become a readily available, fast and cost-effective examination. With a focus on the basic imaging principles of CEDM, this book takes a practical approach to breast imaging. Drawing on the editors’ and authors’ practical experience, it guides the reader through the basics of CEDM, making it especially accessible for beginners. By presenting the key aspects of CEDM in a straightforward manner and supported by clear images, the book represents a valuable guide for all practicing radiologists, in particular those who perform breast imaging and have recently incorporated or plan to incorporate CEDM into their diagnostic arsenal. It is challenging enough to be able to make a diagnosis in mammography, but the newer standards of care demand more than just providing a diagnosis. This book is an excellent resource to improve the understanding of breast diseases, recognize and manage problems encountered in breast imaging and clinical management of the breast diseases. With forty-four chapters, this volume is divided into six sections on screening of breast cancer, imaging modalities, benign breast disorders, interventional procedures, pathological considerations and breast cancer. Breast Diseases: Imaging and Clinical Management is a crisp volume on clinical and multimodality breast imaging with emphasis on interventional procedures, pathology and the entire spectrum of breast cancers. Handbook of Breast Cancer and Related Breast Disease is a practical guide to the management of patients with breast malignancies and related non-neoplastic lesions. Written and edited by leading experts, this handbook focuses on the application of conventional and novel treatment strategies to the care of patients with nonmalignant breast disease and all stages of breast cancer. The handbook is organized chronologically, from screening, through diagnosis and management, to survivorship care and related medical issues. The bulk of these chapters provide evidence-based treatment strategies for all patient subsets, including how to manage patients with high risk breast lesions, invasive breast carcinoma at each stage, and with all known molecular subtypes of breast cancer. Surgical, radiation, and medical treatment options are all discussed for each stage of breast cancer including treatment approaches in pregnancy and breast lesions and Phyllodes. This handbook is a comprehensive yet concise resource for residents, fellows, and early-career practitioners. Community oncologists, breast surgeons, radiation oncologists, primary care practitioners, and OB/GYNs will also find its concise review of new research and procedures to be very useful in this dynamic field of medicine. Key Features: Includes discussion of genomic testing in management of early stage breast cancer Covers adjuvant and neoadjuvant treatment approaches Includes short clinical trial reviews for quick update of study endpoints and results for reference in management of breast cancer Outlines strategies for survivorship issues Key points in each chapter highlight clinical pearls and summarize other important concepts Guest edited by Christopher Comstock of Memorial Sloan-Kettering, this issue of Radiologic Clinics will provide all of the latest guidelines and techniques for breast imaging. Modalities include MRI, MR-CAD, digital tomosynthesis, and ultrasound. This text describes a system of reporting breast fine needle aspiration biopsy that uses five clearly defined categories, each described by a specific term and each with a specific risk of malignancy. The five categories are insufficient/inadequate, benign, atypical, suspicious of malignancy and malignant. Each category has a risk of malignancy and is linked to management recommendations, which include several options because it is recognized that diagnostic infrastructure, such as the availability of core needle biopsy and ultrasound guidance, vary between developed and low and middle income countries. This text includes key diagnostic cytological criteria for each of the many lesions and tumors found in the breast. The cytopathology of specific lesions is illustrated with high quality photomicrographs with clear figure descriptions. Chapters also discuss current and potential future ancillary tests, liquid based cytology, nipple cytology and management. An additional chapter provides an overview of an approach to the diagnosis of direct smears of breast fine needle aspiration biopsies. The International Academy of Cytology Yokohama System for Reporting Breast Fine Needle Aspiration Biopsy Cytopathology provides a clear logical approach to the diagnosis and categorization of breast lesions by FNAB cytology, and aims to facilitate communication with breast clinicians, further research into breast cytopathology and related molecular pathology, and improve patient care. Prepared by a preeminent breast imaging expert, this case-based teaching file atlas presents a clinically oriented approach to screening, diagnostic evaluation, and management of patients with breast conditions encountered by radiologists. Dr. Cardeșoa takes the reader through more than 170 actual patient cases, from classic “Aunt Minnies” to more complex and controversial problems in screening, diagnostic evaluation, and patient management. Cases are thoroughly illustrated with clear, sharp images—over 800 images total—and include multiple imaging studies, pathology studies, and pathologic correlations where appropriate. Emphasis is on determining the clinical significance of abnormalities or potential abnormalities detected on images. The use of tomosynthesis in breast imaging is growing rapidly due to its superior ability to identify and characterize normal findings, benign lesions, and breast cancer, as well as its optimal performance with dense breast tissue. Providing unparalleled coverage of this breakthrough breast imaging modality, Breast
Tomosynthesis explains how this new modality can lead to enhanced interpretation and better patient outcomes. This new reference is an indispensable guide for today's practitioner looking to keep abreast of the latest developments with correlative findings, practical interpretation tips, physics, and information on how tomosynthesis differs from conventional 2D FFDM mammography. Over 900 high-quality images offer visual guidance to effectively reading and interpreting this key imaging modality. Includes over 900 high-quality tomosynthesis and mammography images representing the spectrum of breast imaging. Features the latest Breast Imaging Reporting and Data System (or BI-RADS) standards updated in February 2014. Highlights practical tips to interpreting this new modality and how it differs from 2D mammography. Details how integration of tomosynthesis drastically changes lesion work-up and overall workflow in the department. "Tomo Tips" boxes offer tips and pitfalls for expert clinical guidance. A pragmatic, common sense approach to the detection, evaluation and management of breast diseases and related imaging findings! The fourth edition of this best-selling "how-to" book includes major revisions, including the expansion of the screening mammography and breast MRI chapters, as well as the addition of digital breast tomosynthesis studies. Rather than having selected cropped images, the print and online versions of this book provide the reader with thousands of high quality images and complete imaging evaluations, from the screening images to the diagnostic mammogram, and—when appropriate—images from ultrasound, MRI, imaging guided biopsy, and preoperative wire localizations. Bulleted "key-facts" describe clinical, imaging and histological findings for a spectrum of breast diseases. With this book, breast-imaging radiologists are strongly encouraged to provide clinical, imaging and pathology concordance for optimal patient care, as well as direct and clinically relevant communication with providers and patients. A practical guide for the diagnostic surgical imaging, this new edition of Biopsy Interpretation of the Breast presents the diverse spectrum of pathological alterations that occur in the breast in a manner analogous to that in which they are encountered in daily practice. Lesions are grouped together according to their histologic patterns rather than by the traditional benign-malignant categorization in order to simulate the way pathologists face these lesions as they examine microscopic slides on a daily basis. The role of adjunctive studies in solving diagnostic problems in breast pathology is emphasized where appropriate. In addition, the clinical significance and impact on patient management of the various diagnoses are discussed and key clinical and management points highlighted. Helps radiologists and physicians understand and perform image-guided interventional breast procedures for early breast cancer. Treatment includes interpretation of results of biopsy procedures, patient management, and legal issues, with chapters on pneumocystography, needle localization for breast biopsy, stereotactic and digital systems, core biopsy, fine needle aspiration, interventional breast ultrasonography and magnetic resonance imaging, and pathological considerations. Includes bandw images. Annotation copyright by Book News, Inc., Portland, ORWHO Classification of Tumours of the Breast is the fourth volume of the WHO series on histological and genetic typing of human tumours. This authoritative, concise reference book provides an international standard for oncologists and pathologists and will serve as an indispensable guide for use in the design of studies monitoring response to therapy and clinical outcome. Diagnostic criteria, pathological features, and associated genetic alterations are described in a strictly disease-oriented manner. Sections on all recognized neoplasms and their variants include new ICD-O codes, epidemiology, clinical features, macroscopy, pathology, genetics, and prognosis and predictive factors. The book, prepared by 90 authors from 24 countries, contains more than 340 colour photographs, tables and figures, and more than 1600 references. This book offers a single publication to be utilised comprehensively as a reference manual within current mammographic clinical practice for use by assistant practitioners and practitioners as well as trainees in radiography and related disciplines. In recent years mammographic clinical practice and technology have evolved rapidly and become increasingly sophisticated, this book will cover these issues. The public feel increasingly empowered to 'have a say' in their care and expectations of their mammography experience is high. Consequently a well-trained, well-informed practitioner is of paramount importance in clinical practice today. This book addresses patient/client-related issues in the form of psychological and emotional support they may require. This will enable the reader to gain insight into the patient/client perspective and thereby assist in meeting their needs. Medical imaging has been transformed over the past 30 years by the advent of computerized tomography (CT), magnetic resonance imaging (MRI), and various advances in x-ray and ultrasonic techniques. An enabling force behind this progress has been the (so far) exponentially increasing power of computers, which has made it practical to explore fundamentally new approaches. In particular, what our group terms "model-based" modalities—which produce tissue property images from data using nonlinear, iterative numerical modeling techniques—have become increasingly feasible. Alternative Breast Imaging: Four Model-Based Approaches explores our research on four such modalities, particularly with regard to imaging of the breast: (1) MR elastography (MRE), (2) electrical impedance spectroscopy (EIS), (3) microwave imaging spectroscopy (MIS), and (4) near infrared spectroscopic imaging (NIS). Chapter 1 introduces the present state of breast imaging and discusses how our alternative modalities can contribute to the field. Chapter 2 looks at the computational common ground shared by all four modalities. Chapters 2 through 10 are devoted to the four modalities, with each modality being discussed first in a theory chapter and then in an implementation-and-results chapter. The eleventh and final chapter discusses statistical methods for image analysis in the context of these four alternative imaging modalities. Imaging for the detection of breast cancer is a particularly interesting and relevant application of the four imaging modalities discussed in this book. Breast cancer is an extremely common health problem for women; the National Cancer Institute estimates that one in eight US women will develop breast cancer at least once in her lifetime. Yet the efficacy of the standard (and notoriously uncomfortable) early-detection test, the x-ray mammogram, has been disputed of late, especially for younger women. Conditions are thus ripe for the development of affordable techniques that replace or complement mammography. The breast is both anatomically accessible and small enough that the computing power required to model it, is affordable. This book presents the current trends and practices in breast imaging. Topics include mammographic interpretation; breast ultrasound; breast MRI; management of the symptomatic breast in young, pregnant and lactating women; breast intervention with imaging pathological correlation; the postoperative breast and current and emerging technologies in breast imaging. It emphasizes the importance of fostering a multidisciplinary approach in the diagnosis and treatment of breast diseases. Featuring more than 800 high-resolution images and showcasing contributions from leading authorities in the screening, diagnosis and management of the breast cancer patient, Breast Cancer Screening and Diagnosis is a valuable resource for radiologists, oncologists and surgeons. Dr. Kopans' best-selling text and reference on breast imaging is now in its thoroughly revised, updated Third Edition. The author combines a complete, superbly illustrated atlas of imaging findings with a comprehensive text that covers all
imaging modalities and addresses all aspects of breast imaging—including breast anatomy, histology, pathology, breast cancer staging, and preoperative localization of occult lesions. This edition includes state-of-the-art information on a new modality, breast tomosynthesis, as well as on digital mammography, MRI, ultrasound, and percutaneous breast biopsy. The book contains more than 1,500 images obtained with the latest technology, including many new mammograms and scans using other imaging modalities. FEATURES: - Information on anatomy, histology, physiology, pathology, breast cancer staging, and preoperative localization of occult lesions - Discusses breast disease from a wider viewpoint than just how to perform and interpret mammography NEW TO THIS EDITION: - Digital mammography - Major revisions in the MRI, ultrasound, and interventional sections - Updated figures included in this edition - Updated information on MR, US, and percutaneous breast biopsy This book provides a comprehensive description of the screening and clinical applications of digital breast tomosynthesis (DBT) and offers straightforward, clear guidance on use of the technique. Informative clinical cases are presented to illustrate how to take advantage of DBT in clinical practice. The importance of DBT as a diagnostic tool for both screening and diagnosis is increasing rapidly. DBT improves upon mammography by depicting breast tissue on a video clip made of cross-sectional images reconstructed in correspondence with their mammographic planes of acquisition. DBT results in markedly reduced summation of overlapping breast tissue and offers the potential to improve mammographic breast cancer surveillance and diagnosis. This book will be an excellent practical teaching guide for beginners and a useful reference for more experienced radiologists. This book constitutes the refereed proceedings of the 21st Annual Conference on Medical Image Understanding and Analysis, MIUA 2017, held in Edinburgh, UK, in July 2017. The 82 revised full papers presented were carefully reviewed and selected from 105 submissions. The papers are organized in topical sections on retinal imaging, ultrasound imaging, oncology imaging, mammography image analysis, image enhancement and alignment, modeling and segmentation of preclinical, body and histological imaging, feature detection and classification. The chapters ‘Model-Based Correction of Segmentation Errors in Digitised Histological Images’ and ‘Unsupervised Superpixel-Based Segmentation of Histopathological Images with Consensus Clustering’ are open access under a CC BY 4.0 license. Breast cancer is the most frequent cancer of women in the western hemisphere. This book presents a new imaging modality of the breast which improves the possibilities of mammography at a very high level: Cancers can be detected at a very early stage by MRM. The huge number of breast biopsies can be reduced dramatically. Even tiny breast cancers (e.g. 3mm) can be detected. The prognosis for women with breast cancer will improve due to earlier detection. Bogen er en grundlæggende lærebog om digital mammografi, hvori digital mammografi og traditionel mammografi ogsammenlignes i forhold til screening, diagnoser og radiografisk billedteknik. Der er en komplet billedsamlings af cases indenfor digital mammografi. The rapid increase in computing power and communication speed, coupled with computer storage facilities availability, has led to a new age of multimedia applications. Multimedia is practically everywhere and all around us we can feel its presence in almost all applications ranging from online video databases, IPTV, - interactive multimedia and more recently in multimedia based social interaction. These new growing applications require high-quality data storage, easy access to multimedia content and reliable delivery. Moving ever closer to commercial - playment also aroused a higher awareness of security and intellectual property management issues. All the aforementioned requirements resulted in higher demands on various - eas of research (signal processing, image/video processing and analysis, com- nication protocols, content search, watermarking, etc.). This book covers the most prominent research issues in multimedia and is divided into four main sections: i) content based retrieval, ii) storage and remote access, iii) watermarking and co- right protection and iv) multimedia applications. Chapter 1 of the first section presents an analysis on how color is used and why is it crucial in nowadays multimedia applications. In chapter 2 the authors give an overview of the advances in video abstraction for fast content browsing, transm- sion, retrieval and skimming in large video databases and chapter 3 extends the discussion on video summarization even further. Content retrieval problem is tackled in chapter 4 by describing a novel method for producing meaningful summaries suitable for MPEG-7 description based on binary partition trees (BPTs). Authored by some of the world's preeminent authorities in its field, this new book represents today's best single source of guidance on breast imaging! It presents more details for each diagnosis - more representative images - more case data - more current references than any other reference tool. At the same time, its user-friendly format lets readers access all of this information remarkably quickly! Covers the top imaging diagnoses in breast, including both common and uncommon entities. Provides exquisitely reproduced imaging examples for every diagnosis - plus concise, bulleted summaries of terminology - imaging findings - key facts - differential diagnosis - pathology - clinical issues - a diagnostic checklist - and selected references. Includes an extensive image gallery for each entity, depicting common and variant cases. Offers a vivid, full-color design that makes the material easy to read. Displays a “thumbnail” visual differential diagnosis for each entity. Mammography is an important tool for detecting breast cancer at an early stage. When coupled with appropriate treatment, early detection can reduce breast cancer mortality. At the request of Congress, the Food and Drug Administration (FDA) commissioned a study to examine the current practice of mammography and breast cancer detection, with a focus on the FDA’s oversight via the Mammography Quality Standards Act (MQSA), to identify areas in need of improvement. Enacted in 1993, MQSA provides a general framework for ensuring national quality standards in facilities performing screening mammography, requires that each mammography facility be accredited and certified, and mandates that facilities will undergo annual inspections. This book recommends strategies for achieving continued progress in assuring mammography quality, including changes to MQSA regulation, as well as approaches that do not fall within the purview of MQSA. Specifically, this book provides recommendations aimed at improving mammography interpretation; revising MQSA regulations, inspections, and enforcement; ensuring an adequate workforce for breast cancer screening and diagnosis; and improving breast imaging quality beyond mammography. This book presents up-to-date debates and issues in the world of breast MRI with a very practical focus on how to incorporate current understanding of breast MRI into clinical practice. The book is divided into three key sections, all of which have critical impact for the breast imager: Techniques introduces the reader to the parameters of breast MRI from standard sequences to up-to-date cutting edge techniques. Indications provides a careful review of the accepted indications for breast MRI from High Risk Screening to use of breast MRI, in the context of neoadjuvant chemotherapy with a detailed analysis of the evidence-based support for these indications and a careful look at controversies and debates within the field. MRI Findings, Interpretation, and Management takes on the topics of how to interpret and manage specific MRI findings from benign to malignant disease with a focus on radiologic-pathologic correlation. The section also incorporates a focus on key management dilemmas,
including appropriate follow-up intervals for benign findings on MRI and management of probably benign lesions assessed as a Breast Imaging Reporting and Dictating System (BI-RADS)-3 category on MRI. This open access book focuses on diagnostic and interventional imaging of the chest, breast, heart, and vessels. It consists of a remarkable collection of contributions authored by internationally respected experts, featuring the most recent diagnostic developments and technological advances with a highly didactical approach. The chapters are disease-oriented and cover all the relevant imaging modalities, including standard radiography, CT, nuclear medicine with PET, ultrasound and magnetic resonance imaging, as well as imaging-guided interventions. As such, it presents a comprehensive review of current knowledge on imaging of the heart and chest, as well as thoracic interventions and a selection of "hot topics".

The book is intended for radiologists, however, it is also of interest to clinicians in oncology, cardiology, and pulmonology. The book describes the current state of digital radiology. It does not merely report single experiences, but readers will benefit from the systematic recommendations given. The book describes the development of digital radiology and networking from the late eighties up to now and outlines future perspectives. It gives readers an easy, nonetheless comprehensive overview and also how-to-do guidance for their own activities when implementing a digital radiology system. The book is a synthesis of the editors own 10 years' experience in planning and working with a fully digital, large-scale radiology department and the contributions of internationally well-known experts in the field of digital radiology. This superbly illustrated atlas of breast tomosynthesis covers all aspects and applications of the technology, which reduces tissue overlap and facilitates the recognition of small cancers. After clear explanation of basic principles of the technique, individual chapters address diagnostic criteria, indications, and use of breast tomosynthesis as a screening tool. The findings obtained in the full range of benign and malignant conditions, including postoperative changes, are then presented with the aid of a wealth of high-quality illustrations from case examples. Detailed attention is paid to the BI-RADS classification, bearing in mind the ability of tomosynthesis to reduce categorizations as BI-RADS 3 and 0, thereby decreasing the recall rate. The book concludes by examining tomosynthesis-guided interventions such as vacuum-assisted breast biopsy and galactography. This superbly illustrated practical guide is an excellent resource on all aspects of breast MRI for practicing radiologists, oncologists, and surgeons, as well as residents and fellows. Drs. Elizabeth Morris and Laura Liberman, two experts in the field from the Memorial Sloan-Kettering Cancer Center, have collaborated with colleagues from their institution and selected medical centers to share their expertise. Introductory chapters are devoted to diagnosis and cover the basics of performing breast MRI exams, setting up a breast MRI program, and understanding clinical indications. Additional chapters discuss breast interventional procedures including MRI-guided needle localization, MRI-guided biopsy, and percutaneous ablation of breast cancer; MRI of breast implants; and the surgeon's perspective on the use of breast MRI. A comprehensive diagnostic atlas with hundreds of images completes the volume and addresses the spectrum of clinical situations, including various carcinomas, special tumor types, and benign histologies. Pitfalls in analysis for readers to recognize are also highlighted in this indispensable text. Breast Cancer Screening: Making Sense of Complex and Evolving Evidence covers broad aspects of breast cancer screening specifically focusing on current evidence, emerging evidence, and issues that will be critical for future breast screening practice such as tailored screening and shared decision-making in breast screening. The scope of the book is relevant to a global audience. This book provides balanced perspectives on this increasingly controversial topic, using scientific evidence to explain the evolution of knowledge relating to breast cancer screening. Breast Cancer Screening covers the key points related to this debate including the context of increasingly complex and conflicting evidence, divergent opinions on the benefits and harms of breast screening, and variability in screening practice and outcomes across settings around the world. Explains complex and evolving evidence on breast screening with a balanced approach. Provides balanced information and up-to-date evidence in an increasingly complex area. Addresses emerging topical issues such as screening trials of digital breast tomosynthesis, tailored breast screening, and shared decision-making in breast screening. Assists academics and researchers in identifying areas needing further research. Breast Imaging presents a comprehensive review of the subject matter commonly encountered by practicing radiologists and radiology residents in training. This volume includes succinct overviews of breast cancer epidemiology, screening, staging, and treatment; overview of all imaging modalities including mammography, tomosynthesis, ultrasound, and MRI; step-by-step approaches for image-guided breast interventions; and high-yield chapters organized by specific imaging finding seen on mammography, tomosynthesis, ultrasound, and MRI. Part of the Rotations in Radiology series, this book offers a guided approach to breast imaging interpretation and techniques, highlighting the nuances necessary to arrive at the best diagnosis and management. Each chapter contains a targeted discussion of an imaging finding which reviews the anatomy and physiology, distinguishing features, imaging techniques, differential diagnosis, clinical issues, key points, and further reading. Breast Imaging is a must-read for residents and practicing radiologists seeking a foundation for the essential knowledge base in breast imaging.

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