BOOK REVIEW

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Lonie R. Salkowski and Tanya W. Moseley. Clinical Breast Tomosynthesis: A Case-Based Approach

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This book is one of the firsts on digital breast tomosynthesis (DBT), also called "3D mammography". The authors are Lonie R. Salkowski, Professor of Radiology at the University of Wisconsin, Madison, and Tanya W. Moseley, Professor of Radiology at the University of Texas, M.D. Anderson Cancer Center, Houston.

The book consists of 300 pages, divided into eight sections, explaining all the most important issues and possible indications of DBT, which is intended as an imaging tool using X rays to scan the breasts layer by layer. The major advantage of this technique is in the elimination of the superimposed tissue that, in the presence of a high spatial resolution, allows the detection of otherwise hidden lesions, improving lesion detection rate and diagnostic accuracy with respect to conventional mammography. This multimedia manual may act as an effective reference book for this type of study.

The first of the eight sections includes two chapters, the first being the only one written by an author, Walter W. Peppler, Professor of Physics at the University of Wisconsin, other than the two editors. This section is dedicated to the fundamentals of tomosynthesis, including elements of physics, reconstruction methods, acquisition parameters, and dosimetry. The second chapter reports BI-RADS nomenclature for mammography and ultrasounds. The subsequent five sections are divided into 93 chapters describing cases, analytically organized on the basis of the clinical question (screening and/or diagnosis) and how DBT may find a clinical usefulness. The eighth and final section, divided into eight chapters, describes how DBT may help in biopsy or stereotactic guidance.

The book is intended as a guide to the use of DBT in detecting and/or differentiating neoplasms from normal and benign findings. Organized as a case-based presentation, 100 different patients are analyzed in which relevant clinical information is individuated, evaluating reference images and arriving at results reported with a BI-RADS terminology. Cases are presented comparing "3D mammography" with full-field digital mammography, i.e. with 2D mammographic images, and other diagnostic procedures. In this way, it is possible to understand the technique and its relevance in better detecting and/or interpreting breast lesions. This editorial approach may therefore individuate the position in the diagnostic tree in which DBT may give its major clinical contribution either in diagnosis or in follow up. A further enrichment of this publication is provided by the 230 free online videos at MediaCenter.Thieme.com for further clarification.

This interactive connection is strongly didactic, representing a major value for residents and radiologists who want to rigorously and effectively enlarge the field of their competence in breast imaging. In this context the publication can also be useful for mammography technicians. The detailed cases and videos demonstrate the evident utility of DBT as a screening and diagnostic technique in a scenario in which a clinical role may be already individuated in comparison not only with 2D mammography, but also with ultrasounds and breast magnetic resonance.

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