

**2** BOOK REVIEW

*Echocardiography: A Case Studies Based Approach (First Edition)* Ramdas G. Pai, P. A. N. Chad-raratna, Padmini Varadarajan, Shaista Malik.

**1** Jones & Bartlett Learning, 2012; 574 pp. + DVD

This well-written and beautifully illustrated book utilizes a clinical case-based approach to teach the art and science of echocardiography and to demonstrate how echocardiography relates to other clinical and imaging techniques. As stated by the authors, it tries to emulate "a veteran teacher teaching in a busy clinical laboratory, dealing with the entire spectrum of clinical problems." The book is written by 4 editors and 10 contributors teaching and practicing medicine in California and Michigan.

By purchasing *Echocardiography: A Case Studies Based Approach*, one gets not only the physical book but also its entire content in electronic format on the included DVD. The electronic version is in the standard PDF format. On opening the PDF file, one sees the table of contents on the left and the book content on the right. The entries in the table of contents consist of clickable hyperlinks which allows for easy navigation. Moreover, the entire text is fully searchable using the search tool in a PDF viewer such as Adobe Acrobat.

The book has 44 chapters covering basic and advanced echocardiography topics. There are chapters on left ventricular systolic and diastolic function, native and prosthetic valvular disease, noninvasive hemodynamics, stress echocardiography, cardiomyopathies, pericardial disease, cardiac masses, cardiac trauma, and diseases of the aorta. There are also chapters dedicated to echocardiography in special settings such as the intensive care unit and the emergency department.

Chapters on congenital heart disease include septal defects, patent ductus arteriosus, coarctation, Ebstein's anomaly, tetralogy of Fallot, transposition of great arteries, as well as corrective surgeries such as the Ross procedure and the Fontan operation. There is also a very interesting and useful chapter on echocardiography in non-cardiac disorders.

Advanced topics include three-dimensional (3D) echocardiography, myocardial velocity and strain imaging, and the role of echocardiography in dyssynchrony and resynchronization, ventricular assist devices, and heart transplantation. An entire chapter is devoted to the ever expanding field of echocardiography-guided procedures such as the percutaneous closure of atrial septal defects, paravalvular mitral regurgitation repair, percutaneous insertion of aortic valve prostheses, mitral valve clipping, and arrhythmia ablation.

Each chapter contains two parts: an introduction and the case section. The introduction provides a succinct summary of the clinical characteristics of the chapter's topic, discusses the echocardiography techniques utilized, and lists the pertinent normal and abnormal values for relevant echocardiographic and nonechocardiographic parameters. Frequently, the introductory section also includes charts, diagrams, and tables.

The case section has one or more clinical cases. Each case starts with a brief clinical vignette followed by a series of still images; videos are included in many cases as well. In general, the still images are of high quality, nicely labeled, and accompanied by very instructive figure legends. There are a total of at least 250 cases and 1200 images in this book. Spectral and color Doppler images are all reproduced as high-quality color figures. With only a few exceptions, all the still images and videos are originals. Videos are fully integrated in the DVD-based electronic version of the book and can easily be viewed by clicking on figures marked with the DVD symbol in the PDF file.

The enclosed DVD is compatible with both Windows and Macintosh computers, and the videos are in common formats (.avi, .mov, and .mpg) which are viewable in standard video players such as Windows Media Player, QuickTime, or VLC Media Player.

Each case ends with the Comments section which summarized echocardiographic and clinical findings and provides management tips. Many chapters conclude with a brief Reference section that lists the most important original papers, reviews, and guidelines.

The book is well designed for its target audience: cardiology fellows and sonographers in training as well as physicians and other health care providers preparing for certification exams in echocardiography, cardiology, pediatrics, and cardiac surgery.

In summary, having this book in one's library is like having your favorite echocardiography teachers with you whenever you need them. The book provides a very practical approach to using echocardiography in everyday clinical practice. For future editions, the authors may consider making the book available online as a subscription service for an even easier access.

Muhamed Saric, M.D., Ph.D., F.A.C.C., F.A.S.E.

Associate Professor of Medicine, Director of Operations, Noninvasive Cardiology  
New York University, New York, New York