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Clinical Echocardiography

Second Edition

 Springer

عنوان و نام پدیدآور : / Michael Y. Henein ... [et al.]. Clinical echocardiography
 مشخصات نشر : تهران: دیباج، ۱۳۹۱ = ۲۰۱۳ م.
 مشخصات ظاهری : ۳۱۷ ص.: مصور (رنگی)، جدول (رنگی)، نمودار (رنگی)؛ ۲۱ × ۲۹ س.م.
 وضعیت فهرست نویسی : فیا
 یادداشت : انگلیسی.
 رانویسی عنوان : کلینیکال ..
 موضوع : الکتروکاردیوگرافی
 شناسه افزوده : هنین، مایکل وای، ۱۹۵۹ - م.
 شناسه ابوده : Henein, Michael Y
 رده بند کنگره : ۱۳۹۱ ۸۵/۶۸۳/۵RC
 رده بندی بریس : ۶۱۶/۱۲۰۷۵۴
 شماره کتابتسی ملی : ۳۰۸۴۹۹۹

نام کتاب : Clinical echocardiography
 مؤلف : Michael Y. Henein
 ناشر : دیباج
 نوبت چاپ : اول
 سال چاپ : ۱۳۹۱
 تیراژ : ۱۰۰۰
 قیمت : ۱,۲۴۰,۰۰۰ ریال

مرکز بخش: انتشارات کتاب امیر - تهران خیابان انقلاب - رویروی درب اصلی دانشگاه تهران - مجله تعاون
 فروزنده طبقه اول - واحد ۴۲۶ - تلفن: ۶۶۴۸۱۷۳۳ - ۶۶۴۱۲۵۹۰ - ۶۶۹۶۰۲۲۵ - ۵۱۲۳ - ۰۲۱

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ISBN 978-1-84882-520-8 e-ISBN 978-1-84882-521-5
DOI 10.1007/978-1-84882-521-5
Springer London Dordrecht Heidelberg New York

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

Library of Congress Control Number: 20150217

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Printed on acid-free paper

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Foreword

When Professor Michael Henein invited me to write the foreword to the second edition of his textbook on Clinical Echocardiography I obviously felt honoured. For many years, Dr Henein, as he was then, had worked at the Brompton Hospital in London, where he helped to introduce new concepts of quantitative wall motion analysis by echocardiography and wrote many clinical and scientific papers. He has now, deservedly, moved on to be Professor of Cardiology in Umea University, Sweden, where he continues his clinical and academic investigations into many aspects of cardiovascular disease, including ultrasound imaging.

The first edition of the textbook on Clinical Echocardiography came out in 2004 and reflected the large clinical experience of the author. However, now that there are so many new titles being published that the question arises as to whether there is still a need for a new edition of this textbook. The answer is most definitely 'yes' as there is a need for a concise clinical manual now that echocardiography is part of the specialty training in cardiology and rapidly extends to other clinical disciplines.

This textbook gives not an exhaustive description of the recently introduced echo-Doppler modalities but provides a comprehensive integration of these modalities into state-of-the-art clinical echocardiography for the practicing cardiologist and echocardiographer to maximise the diagnostic information for clinical decision-making.

I therefore heartily recommend this book to cardiologists/sonographers and experienced practitioners alike and hope that in 10 years' time I will see a third updated edition.

J. Roelandt

Preface

During the last six decades we have witnessed the rapid development of Doppler echocardiography since its first invention by Edler in Lund, Sweden. As with so many new innovations, the immediate response was to deny its clinical application. Nevertheless, the basics of Doppler echocardiography were soon proved wrong and it was adopted by clinicians, moving from B-mode into 4-dimensional imaging, and was adapted to provide definitive tissue characterization and perfusion imaging. Doppler echocardiography has now become an essential diagnostic tool in cardiology clinics. Not only it has been described as 'the imaging stethoscope' but it has also replaced, to a large extent, the need for invasive physiological studies in the catheter lab.

Doppler echocardiography beautifully demonstrates shunts, pressure differences between cardiac chambers and compartments as well as anatomical details in patients with congenital heart disease and its use has saved patients countless invasive procedures. Because of this essential role of echocardiography within cardiology practice, manufacturers have responded by developing portable, hand-held, fully integrated systems for hospital- and clinic-based practice. Furthermore, palm-held 'mini echo' systems with their exquisite clear images have now become available for immediate diagnosis of cardiac structure and function. We anticipate further technological development in the future.

This second edition of *Clinical Echocardiography* has been compiled in response to the increasing demand by clinicians and sonographers for a clinical guide which provides simple anatomical and physiological interpretation of the echocardiographic images as well as a reference guide for evidence-based optimum patient management.

Michael Y. Henein

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