Craig A. Thompson *Editor* 

# Textbook of Cardiovascular Intervention



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ISBN 978-1-4471-4527-1 ISBN 978-1-4471-4528-8 (eBook) DOI 10.1007/978-1-4471-4528-8 Springer London Heidelberg New York Dordrecht

Library of Congress Control Number: 2013953237

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Printed on acid-free paper

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My wife, Christi Moore, and daughter, Ainsley Thompson, who make it all possible and worthwhile...

#### **Preface**

We currently live in an extraordinary time in the management of cardiovascular diseases. Catheter-based interventions have evolved to address a variety of needs through innovation and clinical evidence. Interventional cardiovascular medicine continues to be likely the most rapidly evolving and best-studied field in all of the medical and surgical disciplines. Less than four decades have passed since the first coronary balloon angioplasty by Andreas Grüntzig. In this time, the field has grown to a mature specialty where many appropriate patients with coronary disease can have definitive improvements in lifestyle with PCI compared with stand-alone medical therapy, and many patients with complex disease can have competitive results and outcomes with bypass surgery. The evolution of current PCI techniques, drug-eluting stent support, and success in negotiating even the most complex chronic total occlusions can extend therapy to a lost generation of patients who have historically had poor to no options with any of the aforementioned strategies. It is a testament to the tireless work and dedication of clinicians, medical staff, scientists, and industry that this model for technology and technique development has extended to a variety of other comorbidities that affect our patients' lives on a daily basis. Peripheral vascular disease, a major marker for poor cardiovascular and cerebrovascular outcomes, can be effectively managed with simple percutaneous techniques. These patients can have improved quality of life and, importantly, an opportunity for better cardiovascular health with well-selected and executed interventional methods. Patients with significant stroke risk can have that likelihood reduced in many settings with endovascular techniques. The patient with critical aortic stenosis and clearly impaired longevity and heart failure with high or extreme risk for standard surgical valve replacement now has an option and a potential "lease on life" with transcatheter aortic valve replacement. The list is extensive, but the point is consistent and robust. Surgical and interventional fields continue to blend in gray scale with significant synergy and overlap, and medical therapy and understanding of disease are as good as ever.

Given the vast expansion of technologies, techniques, and the clinical evidence base in the information age, it can be challenging for the practicing clinician, fellow-in-training, or technology developer to maintain general knowledge of the interventional cardiovascular space. With this dilemma in mind, I was delighted to collaborate with Springer to develop a textbook of interventional cardiology. Our goal is to provide a practical, information dense, compact textbook with enhanced graphics and broad exposure to the current interventional field that can be digested by the reader as well as a reference tool. We have given a strengthened voice to noncoronary interventional medicine to recognize the current importance and need for total patient management. We will provide the message in a classic text format but also in a variety of digital formats to provide optimal access to information. For readers requiring additional detail on given topics, our chapters are well referenced and linkage to the sources, simple.

The greatest asset of this text is the perspectives of the best-in-class author-contributors. It has been my honor and deep pleasure to work with the world's greatest minds on chapters in their specialty areas. This editorial process has been an educational and enlightening experience for me. While there are far too many individuals to acknowledge in this preface, I would like to thank the efforts for all who contributed chapters; to Margaret Burns, who

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was fantastic with the logistics of project development; to Vicky John, the associate editor from Springer; and to the entire team (editorial, illustrations) at Springer. Finally, I would like to acknowledge Grant Weston from Springer, who championed the need for this type of educational platform in its early inception and is in many ways responsible for this being a reality today.

The contributors, to a person, have my deepest gratitude for helping with this project.

New Haven, CT, USA

Craig A. Thompson, MD, MMSc

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