

# Modern Coronary Care

Edited by

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Foreword by

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## Foreword

Twentieth century medicine may be remembered for its thorough understanding of coronary artery disease. Linked to the increase in understanding is the hope that this scourge would be brought under control. There are four cardinal coronary events, often separated for study but basically interconnected: namely, angina pectoris, sudden death with arrhythmia, acute necrosis of a portion of the myocardium, and chronic left ventricular dysfunction (heart failure). These conditions have occupied the attention of clinicians and basic research investigators over the past century.

Winnowed from the spectrum of clinical manifestations of coronary disease is acute myocardial infarction. About 75 years ago it was realized, largely from the reports of Dock and Herrick, that acute myocardial infarction and its corollary, acute coronary occlusion, were compatible with the patient's recovery. Since then, there have been cyclic bursts of interest in experimental coronary occlusion with interventional therapy to modify infarct size and arrhythmias. In addition to the studies of acute myocardial infarction, there have been periodic investigations into the precipitating cause of coronary artery obstruction.

The mechanism of obstruction has become better understood.

The focus of interest in acute MI is mirrored by the frequency of symposia on the topic and by the plethora of listings in the *Index Medicus*. It is appropriate timing for *Modern Coronary Care*, edited by Gary Francis and Joseph Alpert, to appear. It presents the current thinking of American cardiologists on acute myocardial infarction and its aftermath. Each chapter identifies a milestone in the progress of our knowledge and accomplishment in the care of the patient. While the first few chapters present data and opinion on noncontroversial topics within the specialty, the latter chapters address subject matter where more turmoil and controversy exist.

The century of progress and advancement of knowledge has been characterized by an ascendancy of data over the opinions derived from clinical experience. With the melding of both clinical and statistical approaches, there is in this volume a formulation of conclusions that will be enduring.

Howard B. Burchell, M.D., Ph.D.



# Preface

Today the rate at which people are dying from cardiovascular disease is declining, while knowledge in the cardiovascular sciences advances at an ever-increasing rate. The extent to which these two observations are related is unclear. Nevertheless, there is a perceived need to assess therapy, particularly with regard to how it might influence cardiovascular mortality. Perhaps nowhere is this need more challenging than in the patients with acute unstable coronary disease. Myocardial reperfusion therapy, angioplasty, and pharmacologic support of patients with acute coronary artery disease are improving constantly. Many uncertainties remain, however. What is clear is that therapy has changed from an entirely passive strategy to one of rapid intervention. With changing therapy comes new complications, additional costs, and conflicting data. Eventually, despite the rapid pace at which coronary care is evolving, there is a need to pause and review the progress made to date, realizing that the very latest information cannot always be included. We have perceived a need by physicians for a single, authoritative source encompassing diagnosis and management of patients with acute coronary syndromes. We hope this text will fulfill that need.

The purpose of this book is to update physicians and other health care personnel concerning acute coronary care. Contributing authors were requested to provide an up-to-date and balanced review of their topics, realizing that there still is substantial controversy and uncertainty in many areas such as thrombolytic therapy and emergent angioplasty. Diagnostic and therapeutic options are discussed in detail, with some overlap provided to empha-

size varying points of view. For example, acute mitral regurgitation and ventricular septal rupture are presented from the perspective of the pathologist and the cardiologist. Approaches to the care of the patient with the acute coronary syndrome will continue to be refined, but our intent is that this text will serve as a reasonably current starting point for the new "modern" era of coronary care. Many chapters contain editorial comments to update readers or to present divergent points of view.

This text is not intended to be an exhaustive or entirely comprehensive review of the subject matter. For example, the electrocardiographic changes present in acute myocardial infarction are not presented in any detail. Myocardial imaging with positron emission tomography (PET) or magnetic resonance imaging (MRI) are not discussed. In the case of electrocardiography, there are many excellent textbooks available that discuss the subject thoroughly. The new imaging techniques of PET and MRI are still evolving, particularly in the context of acute myocardial infarction, and are not being routinely used to manage patients with unstable coronary disease. This may change in the upcoming decade.

Finally, we wish to express our gratitude to the many contributing authors who agreed to participate in this venture and provided critical reviews of subject matter related to their areas of expertise. This is truly their book. Nearly all contributors are actively involved in the day-to-day care of patients with acute myocardial infarction, and hopefully have provided useful and practical guidelines for readers. We give many thanks to our editors at

Little, Brown and Company, including Jim Krosschell, who initially solicited our interest, and more recently Laurie Anello and Katherine Arnoldi, who managed to keep the project flowing despite the ups and downs that invariably occur while taking on a task of this magnitude. Lastly, we thank our colleagues at our respective hospitals and universities for providing support and inspiration while freeing us up to carry on the project. For us, this has been a labor of love that began during our sharing of attending rounds in a coronary care unit in San Diego, California in 1974. We often

made rounds together, seeing patients, fielding questions from students, house officers, and cardiology fellows. Their queries were often challenging and insightful, and our junior colleagues continue to challenge us as we enter the "modern" coronary care era of the 1990s. We have seen remarkable progress in coronary care through the years, and we now offer this book as a step toward the improved care of our patients.

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## **NOTICE**

The indications and dosages of all drugs in this book have been recommended in the medical literature and conform to the practices of the general medical community. The medications described do not necessarily have specific approval by the Food and Drug Administration for use in the diseases and dosages for which they are recommended. The package insert for each drug should be consulted for use and dosage as approved by the FDA. Because standards for usage change, it is advisable to keep abreast of revised recommendations, particularly those concerning new drugs.

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