Book Reviews

Jack M. Matloff
Cardiac Valve Replacement
Current Status
Martinus Nijhoff, Dordrecht 1985
XXXV + 310 pp.; Dfl. 223.-/US$ 59.95/E 50.75
ISBN 0-89838-722-1

This excellent collection of papers resulted from the Fourth International Symposium on the St. Jude Medical® valve, held March 11-14, 1984. The first three symposia on this topic were held primarily for designated investigators involved in clinical trials of the St. Jude Medical® valve. These proceedings are the first comprehensive compilation of clinical data since 1982 and include the experience of physicians other than the original clinical investigators. The proceedings contain a wide spectrum of topics, including a keynote presentation on the criteria for selection of cardiac valve substitutes (1984), complications of cardiac valve replacement and their treatment, a review of the current status of cardiac valve substitutes other than the St. Jude Medical® valve, and a consideration of cardiac valve replacement in special circumstances. Among these special circumstances are four presentations on pediatric use of the St. Jude Medical® valve. There are three presentations by groups who have had experience with the Bjork-Shiley® spherical, Hancock® porcine, Io-nescu-Shiley® pericardial and St. Jude Medical® valves and who attempt to define their comparative results. In addition, a large number of discussants participated. That these presentations are from a number of groups around the world establishes this as truly international proceedings.

Jack M. Matloff, MD, who edited the book, co-authored chapters on double-valve replacement and the Cedars-Sinai 60-month experience with the St. Jude Medical® prosthesis and summarized the symposium in a final statement. The presentations have been carefully edited and excellently organized.

The book is comprehensive and presents an excellent summary of the current status of cardiac valve replacement. The purpose of the symposium has evolved over the past 4 years into a more generic cardiac valvular surgery meeting. Thus, although the symposium is sponsored by St. Jude Medical, the presentations are not limited to discussions of this valve. The book includes 310 pages in a durable, hardback cover.

‘Cardiac Valve Replacement: Current Status’ should serve as a useful reference for cardiologists and cardiac surgeons interested in results of valve replacement with a variety of prostheses. Discussions that took place at the meeting have been edited and added to each section as a progress report, giving the book greater scope. The information contained in the sections make this book an excellent guide for those interested in the treatment of valvular disease.

Denton A. Cooley, Houston, Tex.
M.R. Malinow, V.H. Blaton

Regression of Atherosclerotic Lesions
Experimental Studies and Observations in
Humans
Series A: Life Sciences, vol. 79
Plenum Press, New York 1984
IX + 355 pp., US$ 52.50
ISBN 0-306-41732-4
This book presents, in some 340 pages, the proceedings of a NATO Advanced Science Institute Series on the regression of atherosclerotic lesions held in September 1983. Readers interested in atherosclerosis research and in clinical aspects of atherosclerosis will find an up-to-date (1983) review of regression of atherosclerosis in animals and men. The authors have extensive experience with regression studies in animals (R.W. Wissler, D. Vesselinovitch, T.B. Clark-son, M.R. Malinow, V.H. Blaton) and in the morphology and biochemistry of the lesion (G. Weber, Y. and O. Stein and L. Robert). Studies on human atherosclerosis include chapters on the evolution of human atherosclerotic lesions by K.W. Walton, a detailed review of high-density lipoproteins and their role in preventing or retarding atherosclerosis (G. Assmann and H. Schriewer), on comparative morphology (H.C. Stary) and finally on experiments dealing with regression of human atherosclerosis (R.J. Havel, St. Azen and D. Blankenhorn) as well as methodological prob-

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This is the 3rd edition of an excellent book. In the first two editions extensive coverage was given to almost all topics related to exercise testing. In this new edition seven new chapters have been added dealing with such subjects as stress testing after surgical intervention and PTCA, rhythm, conduction disturbances in stress testing, stress testing in women, and sports medicine and rehabilitation, to mention only the more important ones. The other chapters have been revised and brought up-to-date.
I think that Dr. Ellestad has done a remarkable job in preparing this new edition. It is needless to add any superlatives to what has already been written and said when the 1st and 2nd editions appeared on the bookshelves. Suffice to say that he should be commended, once again, for his contribution to exercise cardiology.
Jan J. Kellermann, Tel-Hashomer
Sudden Cardiac Death
Anyone wishing to know relatively quickly what little is known and how much is unknown about sudden cardiac death could not do better than reading these 25 odd, small-size pages, written by leading experts. The problem of defining the condition is briefly stated, followed by a short account of epidemi-ological data on frequency around the world, the rela-

tionship to myocardial infarction with survival and prior cardiac disease and the lack of risk factors specific for sudden death. Under ‘Pathology and Patho-genesis’, it is acknowleged that
80% or more of the victims have advanced coronary atherosclerosis though the point is made that this should not be equated with sudden death. The role of thrombosis, the small vessels, the conduction system and microscopic changes are mentioned. Moving on to the all-important mechanisms of the terminal event, ventricular fibrillation is stated to be by far the most common cause of cardiac arrest. The evolution of the electrical changes leading to arrhythmias is described, followed by discussions of reperfusion arrhythmias and coronary spasm. The next two sections deal with the role of the autonomic nervous system and of disorders of the myocardium. The brevity of the chapter on ‘Prediction’ of sudden cardiac death reflects the lack of methods with reasonably adequate predictive power; in the presence of coronary heart disease, the severity of left ventricular dysfunction is probably the best predictor. Under the heading ‘Prevention’, the measures which have been proposed are reviewed, with the conclusion that ‘...the number of lives saved is small’.

Nobody could argue with the statement that ‘the initiation of preventive measures is impeded by the low sensitivity and specificity of methods of predicting the terminal event’. However, the conclusion that ‘prevention of sudden cardiac death at present cannot be based on any population strategy’ betrays the views, not universally shared, of at least some of the members of the Scientific Group convened by the World Health Organization. These are expressed as follows: ‘The frequently held hypothesis that the prevention of coronary artery disease, even if it were feasible, might reduce the incidence of sudden cardiac death was not fully endorsed and needs to be examined more carefully’. Those who adhere to this hypothesis have never maintained that coronary artery disease causes sudden death as such but consider it plausible to think that myocardial damage, caused by advanced coronary atherosclerosis (present in 80% of the victims, as stated), creates the single, most important (though not only) precondition which greatly enhances the danger of sudden electrical instability. If this is true, measures which slow down the progression of coronary atherosclerosis would, indeed, contribute to the prevention of sudden cardiac death. Needless to say, the preventive potential would be

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further advanced, as expressed in the report, by better knowledge of the precise mechanisms which lead to lethal arrhythmias. It is a pity that this authoritative and outstanding review unnecessarily creates a controversy where none should exist. F.H. Epstein, Zurich

Robert M. Califf, Galen S. Wagner Acute Coronary Care 1986

Nijhoff, Dordrecht 1985

XI + 399 pp.; Dfl. 176.-/US$ 49.95

ISBN 0-89838-762-s

This volume will be one of a series of yearly updates to keep cardiologists and others au courant with the latest in concepts and practicalities. The distinguished editors, who have made many recent contributions in this and related fields, have organized the book in five parts according to management phases: pre-hospital, post-admission, coronary care unit, pre-discharge and convalescent. This makes this useful book, in a sense, an annotated flow-sheet for patient care. The pre-hospital phase is completely discussed in a single chapter on autonomic changes during acute infarction and ischemia. The post-admission phase covers initial electrocardiographic estimate of jeopardized myocardium, use of anti-platelet agents and thrombolytic therapy, including novel thrombolytic drugs, catheterization when necessary, and the use of beta-blocking agents. In the coronary care unit phase the contributors deal with ‘post-thrombolytic care’, using
serum enzymes to determine reperfusion and infarct size (including an outstanding contribution by Bruce Brundage on measuring acute infarct size by computed tomography), magnetic resonance imaging, positron imaging, the hemodynamics of infarction, and even ‘diagnostic related groups’ (DRGs) which has relevance only to the United States. Martin contributes a valuable chapter comparing intravenous nitroglycerin and sodium nitroprusside. The pre-discharge phase covers ultrasound to detect infarct expansion and mural thrombi; cardiac catheterization pre-discharge; selection of proper antiarrhythmic treatment for patients at high risk of sudden death; and lessons from the BHAT study regarding selection of patients for beta-blockade. Topics for the convalescent phase include pre-hospital discharge evaluation, common problems in management (recurrent pain, drug therapy and psychosocial factors in rehabilitation), and a review of new inotropic agents.

All in all, this is an excellent review of the state-of-the-science (and to some extent state-of-the-art) of its subject by absolutely first rank contributors. The publishers have produced the book in typescript with relatively few illustrations, obviously in an attempt to rush the information to publication. The only drawback this has is that the text is not as pleasant to read as an artistically printed book. However, I found only good and better chapters, no bad ones and no surprises.


According to the author’s statement in the preface, this book deals (in a rather condensed form [J.K.]) with cardiac function in health and disease. The first section deals with the cellular basis of the physiology, the second with energy metabolism and ventricular function. The third chapter deals with pharmacological properties in daily cardiological use and the final one discusses therapy of heart disease.

It must be said that the author of this book has indeed made a substantial effort to concentrate mainly on two highly important subjects, namely, the cellular basis and energy metabolism. It is mandatory that clinicians are more aware of basic functions in order that they understand the pathophysiology and clinical implications of various conditions. While the discussion on pharmacology and therapy can be read in greater depth in a number of other books of this kind, the first two chapters, namely physiology and energy metabolism and ventricular function, make this book highly readable and important.

We recommend this book not only to the basic scientist dealing with cardiovascular disorders but, mainly and especially, to the clinical cardiologist who fights in the first line facing complicated problems in diagnosis and management.

Jan J. Kellermann, Tel-Hashomer