**Book Reviews**

**S. Bharati, M. Lev**

*Cardiac Surgery and the Conduction System*


This important new text written by authors Bharati, Lev, and Kirklin is an important book for any cardiac surgeon, adult or pediatric cardiologist. One of the key elements in cardiac surgery today is avoiding damage to the conduction system. This is not particularly difficult in many straightforward cardiac operations, particularly operations involving coronary artery disease. However, when one has to do complicated intracardiac repairs that occur with complex congenital heart disease, a detailed knowledge of the exact anatomic location of the conduction system is essential. This book for the first time combines the anatomic conduction studies of Drs. Bharati and Lev with a view of the congenital lesion as seen by the surgeon in the operating room, beautifully described by Dr. Kirklin.

I think the book is unique in that it provides a written description of the anatomy of the conduction system associated with various cardiac defects and then highlights this written description with beautiful illustrations which are well marked and easy to follow. The book beautifully accomplishes its purpose, in that the pictures enable a surgeon or cardiologist to visualize the conduction system for various cardiac defects as seen in the operating room. With the knowledge from this book a surgeon should be able to avoid damaging the conduction tissue during the cardiac operation outlined in the text.

I think it is not only an important addition to every surgeon and cardiologist’s library, but it provides beautiful diagrammatic information that was previously not easily obtainable from one well localized reference source. The descriptions are brief and precise. The labelled diagrams are excellent and the surgical approaches are well outlined. It is the culmination of years of pathologic and surgical work by outstanding individuals and should be an important reference text for many years.

D.S. Moodie, Cleveland, Ohio

**Karl E. Hammermeister**

*Coronary Bypass Surgery The Late Results*


This timely volume includes the most comprehensive best compendium of lay results of coronary artery bypass graft surgery that is currently available. It is logically organized, and contains thoughtful introductory and summary chapters by one of the leading analysts in the field. Part I contains all of the pertinent current information on late survival following medical and surgical treatment from the randomized VA cooperative study and the nonrandomized Seattle Heart Watch study. Curiously, the European Cooperative study was omitted; surgical results from the coronary artery surgery study (CASS) were not available. Part II contains other measures of late results including relief of angina, changes in symptoms and medication usage, late changes in vein grafts, effective surgery on exercise performance and left ventricular function, chronic ventricular arrhythmia, and economic concepts.
including subsequent hospitalization rates, socioeconomic costs, and effect of surgery on continued employment.

The presentation of the data from the VA cooperative study is in summary form only, the details having been presented elsewhere. This book will be a useful reference for any physician who treats patients with coronary artery disease.

W.C. Sheldon, Cleveland, Ohio

Book Reviews

349

Paul E. Leaverton Environmental Epidemiology

This book contains papers presented during two ‘Yves Biraud Seminars’, held at the Lake of Annecy in the French Alps between 1980 and 1981. These particular meetings, devoted in general to epidemiology and public health, were focussed on ‘health sentinels’ which may be considered as early warning systems for detecting health hazards in population groups. There are 16 chapters of which only two deal with cardiovascular disease as such. In this time of compartmentalization of science, including medicine, it may be considered an advantage to look upon some aspects of heart disease as part of a broader problem – in this case the influence of the environment on health. The cardiological chapters mentioned are written by 2 leading experts, the topics being ‘Environmental Health Sentinels Related to Cardiovascular Diseases’ by Dr. Manning Feinleib, and ‘Environmental and Occupational Sentinels for Cardiovascular Disease’ by Dr. William R. Harlan. Feinleib touches briefly upon individual risk factors related to life style, secular mortality trends and geographical variations of ischaemic heart disease mortality in the United States, before dealing in more detail with chemical constituents of the environment (water fluoridation, carbon monoxide, heavy metals, industrial exposures to carbon disulphide, aliphatic nitrates and halogenated hydrocarbons). He recommends ‘a network of coordinated screening and diagnostic services for individuals with suspected exposure to hazardous substances’, as well as programs for the collection of health statistics to monitor potentially harmful influences in the environment. Harlan deals mostly with the occupational environment, using a broad definition of ‘environmental stress’, relating to the ‘personally controlled environment’ which he considers more important than the ‘general environment’. He then discusses vibratory stress, noise stress, radiofrequency radiation, psycho-social stress and stress at the place of work. Both authors are in full command of the field, terse and factual.

The other chapters cover: (1) environmental epidemiology as related to some aspects of cancer mortality and selected mortality trends, cancer registries, health statistics comparisons between industrialized countries and surveillance of health effects of environmental hazards; (2) environmental health sentinels (children as sentinels for respiratory disease, animals as sentinels the use of data systems for surveillance, sentinels in the European Economic Community, as well as the two chapters already reviewed); (3) sentinel practices for environmental health monitoring, including a description of three such systems and of a training program in epidemiology for occupational health problems.

All this may sound at first like a rather ‘mixed bag’ of contributions within the overall field of environmental health. However, under the able and skillful editorship of Dr. Paul E. Leaverton, a whole new world of topical and important environmental issues opens up. Those
concerned primarily with cardiovascular disease can see the need for both a categorical approach to specific problems and for tying into broader networks the environmental monitoring and control. This is an authoritative, well-written, unpretentious and practical book.

F.H. Epstein, Zurich

M. Kaltenbach, H. Roskamm Vom Belastungs-EKG zur Koronarangiographie
Springer, Berlin 1981
357 pp.; DM 148.-/US$ 87.40
ISBN 3-540-09861-5

The authors of this book indicated in their preface that the material presented is based on more than 10,000 cine-angiograms. These invasive procedures were combined and compared with non-invasive methods of assessment. Indeed, the subject ‘from exercise electrocardiography to cine-angiography’ is still of extreme interest. An increasing number of studies concerning the prognostic value of exercise stress testing and electrocardiography have been published in recent years.

In addition, the introduction of echocardiography, nuclear imaging and digital tomography as non-invasive tools has added significantly to an improvement of diagnosis and thus to an early initiation of therapeutic measures. The timely undertaking of coronary angiography and the exact indication to perform invasive testing has been a subject of controversy for many years.

350

Book Reviews

This book examines in detail the indication and a state of the art of coronary angiography. Special attention is being paid to the techniques of the various methods, and the rich illustrations make it easy, even for the reader with a lack of experience, to follow and understand.

This book, written in German, can be recommended to all those interested in the invasive and non-invasive techniques of examination of coronary heart disease.

J.J. Kellermann, Tel-Hashomer

Gerald C. Timmis, Douglas C. Westerveer Cardiovascular Review 1983

This book is the third edition of an extensive survey of the English published literature of cardiovascular diseases.

The content is divided into main chapters, such as: ischemic heart diseases; valvular heart diseases; arrhythmias and conduction defects; congestive heart failure; electrocardiography; hypertension; and a great number of other subjects concerning diagnosis, management, and therapy of cardiac conditions, whether of primary or secondary origin.

As stated by the editor in his preface, little effort has been made to edit the various quotations. It remains the objective of the editorial board to identify the substance of the material appearing in current medical literature.

It is natural that this book, which makes quotations of almost 7,000 papers, is not intended to replace a textbook or even an extensive overview on the different subjects. There is no doubt that the editors have done a thorough and productive job. Nonetheless, while it is stated that this book is quoting papers from the English published literature, one
gets the feeling that in some chapters only U.S. journals are quoted, while journals from abroad published in English are either completely omitted or rarely referred to.

In summary, this book can be recommended to all those who are interested in a concise and extensive reference book.

J.J. Kellermann, Tel-Hashomer

Herbert L. Abrams Coronary Arteriography
ISBN 0-316-00469-3

In the 1980s, when most coronary arteriography in the United States is performed by cardiologists, it is interesting to see a textbook of coronary arteriography produced almost entirely by radiologists. This text is of very variable quality: some chapters are classics which can hardly be improved. Others are vague, sketchy, and occasionally inaccurate. The illustrations are of extremely high quality.

The strong points of this text are the sections dealing with the angiographic aspects of coronary arteriography: coronary anatomy, collaterals, and anomalies; pitfalls of coronary arteriography, and angiography of bypass grafts. These sections are extremely detailed, accurate, and well-illustrated. However, only one of the more than 300 pages is devoted to the Sones technique. Therefore, this text is of no value to the student who is studying the brachial approach to coronary arteriography.

The chapter on X-ray and film equipment for the catheterization laboratory is too advanced for the beginner. Since most students of coronary arteriography are cardiologists, this chapter should have contained more basic information.

The weakest points of this text are those which deal with the evaluation and management of medical problems which occur during angiography. For instance, one contributor suggests that the catheterization procedure should be terminated if the left ventricular end-diastolic pressure reaches 30 mm of mercury. He does not even mention the use of nitrates to lower the left ventricular end-diastolic pressure. The methods used to treat asthmatic attacks and laryngeal edema following contrast material are vague and incomplete. The suggested treatment of congestive failure during coronary arteriography does not even include the use of diuretics, nitrates, or sitting the patient upright. One author recommends intramuscular epinephrine for treatment of hives and other minor allergic reactions. This is inappropriate and even dangerous therapy for patients with severe coronary artery disease.

The section on treatment of shock which occurs during coronary arteriography is outdated. The use of intravenous ephedrine and Aramine to treat all the different types of shock which can occur during arteriography is inappropriate. During coronary arteriography, shock may be produced by vagal reactions, dehydration, acute myocardial ischemia, severe left ventricular myocardial disease, and anaphylactoid reactions. Each should be treated in a specific manner. The authors do not even mention these various causes of shock, much less their specific treatment.

Perhaps the most dangerous recommendation in this text is the use of intravenous quinidine for treatment of ventricular tachycardia and atrial flutter. In a later chapter, this error is corrected by more appropriate recommendations.
The text is outstanding for its chapters which deal with the angiographic aspects of coronary arteriography. However, like almost every other textbook on coronary arteriography, it contains almost no useful information on the Sones technique. The student of coronary arteriography should ignore the chapters on the recognition and management of the complications of coronary arteriography.

Frederick A. Heupler, Cleveland, Ohio

K.I. Shine Cardiology

Based on a cardiology course for internists, this book is mainly the result of the efforts of its distinguished editor and 11 principal collaborators from the UCLA faculty. Ten solid topics are covered by well-known authorities. The material is timely and inclusive, although, as might be expected, the depth of any presentation is variable. I did not find any bad chapters – only good and better ones. Brama Singh and colleagues produced an outstanding essay ‘Management of Cardiac Arrhythmias: Newer Perspectives’ which is definitely state-of-the-art and state-of-the-science, as is the excellent chapter ‘Prolapsed Mitral Leaflets’ by Ginzton and colleagues. Of particular value, also, are Shine’s ‘Chest Pain with Exertion’, MacAlpin’s ‘Angina at Rest’ and Pravin Shah’s ‘Cardiomyopathies’. Owing to particular personal interest, I gave more concentrated attention to the extremely well-written ‘Diseases of the Pericardium’ that concisely covers most important aspects. There were a few flaws: the explanation of pulsus paradoxus is somewhat incomplete, and the hemodynamic illustrations of tamponade and constriction look like drawings. Treatment of tamponade by volume expansion and isoproterenol has been recommended by others, but in recent work does not appear to work nearly as well in human beings as in animals. Finally, constrictive pericarditis is not necessarily chronic, and the statement that pulsus paradoxus is ‘present in approximately one-half the patients’ should be modified to indicate that all of those probably have effusive-constriction. Despite these comments, however, the authors of this chapter have done a creditable job. This book is recommended for the audience for which it was designed – internists – as well as other nonspecialists with a deep interest in cardiology.


J. Roelandt
The Practice of M-Mode and Two-Dimensional Echocardiography
Developments in Cardiovascular Medicine, vol. 23

The Practice of M-Mode and Two-Dimensional Echocardiography edited by J. Roelandt is a very fine addition to the echocardiographic literature. It consists of a series of detailed, highly technical articles detailing recent advances in ultrasound physics, diagnostic studies, interpretation of M-mode and two-dimensional echocardiographic studies. The particularly good chapters are those concerning the performance characteristics of two-dimensional scanners, quantitative aspects of both M-mode and two dimensional echocardiography, doppler echocardiography and transesophageal echocardiography.
This book is highly technical in many sections and is, therefore, directed to the reader with a good understanding of the principles of ultrasound physics. This book is not a compendium of interpretive studies but is a superb reference text on selected important aspects of echocardiography.
Anne L. Taylor, Iowa City, Iowa