BOOK REVIEWS


In reviewing this book on electrocardiography a quotation from the foreword written by Dr. Ignacio Chavez of the Institute of Cardiology in Mexico City, Mexico, is very pertinent.

"The clinician has available for learning diagnostic electrocardiography, many books, large and small, some in the form of atlases, others as manuals or treatises; but books that teach and discuss the scientific bases on which the procedure rests, or all the experimental work that has been done to elaborate it, are very few. Such a book is what Dr. Sodi-Pollares gives us here . . . . It is not a treatise on clinical electrocardiography but a book concerned with the 'hows' and the 'wherefores' in electrocardiography. It is not intended for the presentation of established formulas, but to present methods for the better understanding of the tracings and to interpret them in the light of what we now know concerning the electrophysiology of the heart."

In the opinion of the reviewer, the authors have accomplished these aims in a superlative fashion. If more physicians were familiar with the basic material presented in this volume and used the approach, demanded by the authors, in their daily reading of electrocardiograms, the quality of electrocardiographic interpretation would be enormously improved.

The first 4 chapters in the book are concerned with principles of electricity, the electrophysiology of the heart, and matters relating to the electric axis of the heart and the limb leads. Chapter V is devoted entirely to the electric effects due to injury of cardiac muscle and in Chapter VI the reader will find detailed discussion of the behavior of precordial leads and the reasons why certain changes occur in hypertrophy, bundle-branch block, myocardial infarction, and in other conditions. Chapter VII is concerned with the activation process in the human heart and, in this section, much experimental as well as clinical evidence, pertaining to the pathways of excitation in normal intraventricular conduction and in bundle-branch block, is presented. The electric and anatomic positions of the heart are discussed in Chapter VIII, and Chapter IX is devoted to vectocardiography and stereovectocardiography. Chapters X and XI are concerned with the ventricular gradient and potentials within the cavities of the ventricles, respectively, and in the Appendix many derivations and explanations, mostly mathematical in character, which expand and clarify matters referred to elsewhere in the book, will be found.

Although the book is, in part, a translation of the third edition of Nuevas Bases de la Electrocardiographia by Sodi-Pollares, it does not suffer from the deficiencies that occasionally occur under such circumstances. The text is clear and well written and the illustrations are adequate in number and of excellent quality. It is difficult to find any feature of this volume that justifies unfavorable criticism. If the title were changed to something like "Basic Principles of Electrocardiography (or Electrocardiographic Interpretation)" it might be more informative of the character of this book than is the title employed. Irrespective of its title, this book should be in the library of every physician seriously interested in electrocardiography.

FRANKLIN D. JOHNSTON


This small monograph, dealing specifically with the dynamics of venous return, may prove to be the most significant single contribution to basic hemodynamics since C. J. Wiggers' Pressure Pulses in the Cardiovascular System (1928). It is appropriate that Dr. Wiggers provided the foreword in this volume.

Dr. Brecher and colleagues have vigorously attacked and seemingly solved the 2 most vexing problems concerned with the dynamics of venous return. Moreover, he has provided us with a lucid and readable account of why and how they did it.

The 2 basic questions asked and answered in this monograph are: (a) does inspiration increase venous return to the heart; and, (b), does the heart pull blood from the veins (vis a fronte) as well as push it through the venous system (vis a tergo). The answer turns out to be "Yes" in both cases, but learning the answers from the monograph is a completely enjoyable experience, complete with a careful and thorough historical survey and convincing experimental documentation.

The first 3 chapters are devoted to establishing the historical background, reviewing elementary hemodynamic principles, and the peculiarities of the venous system. The fourth chapter sum-
marizes the areas of controversy, particularly dealing with the “venous collapse” theory of Holt and Duomarco as related to the effect of respiration and with the controversy as to whether the ventricles can “suck” blood into their cavities during either systole or diastole. This chapter also provides a place to point out that much of the controversy existed because of inadequate methods of measuring venous blood flow. Chapter V follows with an excellent critique of flowmeters and their application. The description of the bristle flowmeter developed in the author’s laboratory will be of interest to many readers.

The presentation of experimental material begins in Chapter VI and continues through Chapter IX. It progresses methodically and surely through an elucidation of venous hemodynamics, the effect of respiration on venous return (including artificial respiration), and the heart’s action on the venous return. Positive evidence is provided that inspiration (and alternating positive-negative artificial respiration) increases venous return. A highly satisfactory compromise between the intrathoracic aspiration theory and the “venous collapse” theory is achieved. Both are correct. The evidence for a vis a fronte during ventricular systole is good, thus necessitating the adoption of a concept of the heart as a reciprocating pump (push-pull) rather than a pressure pump only.

The last 2 chapters try to apply the new knowledge of venous hemodynamics to problems concerned with atrioventricular valvular disease and intracardiac surgery. Although not greatly detailed, these 2 chapters do summarize present problems and techniques in these areas and indicate the direction for further progress.

The reproductions of the original records are unusually large and show detail very well. The technical excellence of the tracings is worthy of notice. The diagrams are large and understandable.

**David F. Opdyke**


The authors state that their purpose in the preparation of this book was to introduce ballistocardiography to those unfamiliar with it. This objective they have accomplished. An early chapter presents in an elementary way the physical basis of ballistocardiography. There follows a discussion of several simple recording methods, conventional descriptions of “normal” and “abnormal” records, and finally a presentation of the kinds of abnormal records found in various disorders of the circulatory system.

The book contains nothing significantly new but it is useful as a good review of a controversial subject. There is only brief mention of newer approaches to ballistocardiography such as ultra-low frequency recording and basic physiologic study under controlled experimental conditions. In a final brief chapter upon the clinical value of ballistocardiography the authors take a wisely conservative position. With particular reference to coronary artery disease they point out that there is hope that further experience with ballistocardiography will prove that it provides the clinician with useful information not provided by other methods of study.

**Benjamin M. Baker**


As indicated in the preface, this book aims to present the basic physiologic principles of clinical medicine to senior medical students, interns, and practitioners. The term physiology is used in a broad sense to include biochemistry and pathology, and to a lesser extent, anatomy, pharmacology, and bacteriology. Subject matter is divided into 9 principal parts: general metabolic considerations, the cardiovascular, respiratory, digestive, hematopoietic, endocrine, renal excretory, and locomotor systems, and infection and immunity. Emphasis is placed on metabolic, cardiovascular, and endocrine fields where more significant advances have occurred in recent years.

The book succeeds in its stated aim, with minor qualifications. Despite competent editorial effort, there is unevenness in the 33 chapters written by a total of 23 senior authors. Thus some portions of the chapters on water and electrolyte metabolism, electrocardiography, congenital heart disease, and coagulation will be difficult for the average reader to comprehend. On the other hand, the chapters on vitamins, congestive heart failure, adrenocortical inhibition, and male and female sex organs are exceptionally lucid. The remaining chapters are well presented. In view of the frequency of neuroses and neurologic disturbances in medical practice, more considerations of the central nervous system is desirable.

Inaccuracies are few. Thus, the normal diurnal variation in body temperature is stated to be 3 F. (p. 10) and reference to accessory vasomotor-respiratory centers in the carotid and aortic bodies (p. 406) is unusual terminology. Typographic errors are minimal, particularly for a first edition.

The book is definitely recommended to junior and senior medical students, interns, residents, and generalist and specialist practitioners.

**George E. Wakerlin**

These well known French clinicians have here attempted a very difficult task, namely a detailed consideration of certain unusual coronary pain patterns, whose location, radiation, duration, provocation, or response to nitroglycerin, is atypical due to the influence of co-existing but noncardiac disease or dysfunction. These anomalous clinical pictures, they believe, are affected by the interweaving of neurovisceral reflexes with the reactions of the coronary circulation and do not result from the simple but independent co-existence of 2 maladies. The authors recognize that these complex cases of combined coronary and somatic pains have been of interest to many others and cite them liberally.

The book is divided into 3 sections: the first represents the authors’ own clinical experience with 30 patients over a 12-year period, the second a short report of the authors’ animal experiments on the subject, and finally the third section offers a discussion of the pathogenesis of this interdependence of coronary and extracoronary disorders. In the first section, the various types of pain patterns are carefully detailed and are divided into several groups. The first describes coronary pain in patients with a highly emotional constitution in whom one finds not only neurotic or psychoneurotic overtones but also imbalance of the vegetative nervous system; these may exhibit weird irradiations of pain (e.g., to the left toes) or pains may be accompanied by singultus, flushing of the skin, gaseous eructations, deep sighs, and other emotional expressions of anxiety. A second and the largest group consists of patients with coronary pain interwoven with, even provoked by, vertebral disease. The interchange of influence of the 2 diseases in these cases can be so constant, in the authors’ experience, that a continual state of pain may eventuate, thus complicating the etiologic diagnosis as regards the coronary component. A third clinical group is composed of patients with combined coronary and digestive tract disorders—primarily peptic ulcer, hiatus hernia, and gallbladder or esophageal diseases. In the fourth group the authors imply that pulmonary disease and its sequelae, especially chronic paroxysms of cough, evoke anginal pain. Although the authors are of the opinion that certain complex nervous or visceroreflexes influence the already abnormal coronaries it appears more likely to the reviewer that the actual effort of coughing, and the anoxic state of the emphysematous subject, are the responsible physiologic mechanisms that act directly to hamper myocardial nourishment. In the final but heterogeneous group there are several interesting descriptions of subjects with amputation stumps and phantom anginal arm pain.

The authors state that a careful historical interrogation is the most important approach in unraveling these intricate pain patterns. A change in the usual behavior of the anginal discomfort should of course prompt consideration of an acceleration of the vascular disease, as the authors remind us, but once this is eliminated as cause, a separate disease entity, which has interwoven itself into the pain picture should be considered. If the case presents first in its fully developed complexity it is usual to find electrocardiographic evidence suggestive of heart disease in the authors’ experience. The history often reveals that typical anginal pain predated the complex and bizarre status and with the change in symptoms one should conclude that a new disease picture is making itself felt. Treatment of the associated disease will often relieve the patient of certain of the painful symptoms and clarify the picture.

The experimental design in the second section of the book is unfortunately so simplified that conclusions should be made with reserve. The authors utilize only directional T-wave changes in the dog as evidence of coronary vasomotoricity. In these studies, the latter is solicited by 1 of 4 maneuvers—excitation of the first 3 cervical nerves, and distention of esophagus, stomach, or gallbladder respectively. These stimuli are applied in dogs with intact as well as dogs with compromised coronary vessels. T waves were altered in some dogs of every group, but more often in those with altered coronary circulation.

The third section of the book presents with great skill a discussion of the possible pathogenesis of these complex and interwoven painful symptoms the origins of which, it would seem, at times are at somatic areas very remote from the diseased organs. Sensitization of certain spinal segments with facilitation and augmentation and even dissemination of the stimuli outside usual pathways is held by the authors, and supported by numerous references to the neurophysiologic literature, to be responsible for the summation or distortion of certain painful symptoms or their peculiar irradiation or duration.

This is a valuable presentation of a very difficult clinical problem. One might at first feel the clinical descriptions that make up the first section are overlong, but the atypical anginal pain patterns must be clearly defined to be understood. One might be concerned that the authors accept T-wave changes, in both the clinical records and the experimental protocols, as incontrovertible evidence of coronary disease, especially since the tracings shown are not always convincing and occasionally technically too poorly reproduced for the reader.
to interpret. (In figure 13 leads $V_L$ and $V_R$ are mounted upside down and hence interpretation of $V_L$ is incorrect.) The English summaries at the ends of chapters are unfortunately so poor (in terms of language) that they will be of little value. Everyone interested in the intricacies and difficulties encountered in, as well as the treatment of, these complex coronary subjects will benefit by studying the findings presented in this volume. The beautifully detailed clinical descriptions and the provocative discussion of mechanisms warrant a full English translation.

M. IRENE FERRER


Because of the increasingly narrow specialization within the field of internal medicine, it is not surprising that a book such as this should seem desirable, and even essential. The consideration of coronary heart disease is far more extensive and detailed than that in any other book known to this reviewer. To one who has not seen it the number of pages might seem excessive; to one who has read it carefully and critically from cover to cover there does not appear to be one word too many.

One would expect any such book to contain chapters dealing with etiology, pathology, diagnosis, prognosis, and treatment. This one has in addition chapters devoted to anticoagulant therapy, surgical treatment, the possibilities of prevention, diet, and medicolegal features of coronary disease. There is an excellent chapter on electrocardiography, followed by nearly 50 pages of case reports, each illustrated by means of full-sized electrocardiograms, beautifully reproduced. Ballistocardiography, lipid metabolism, and the possible effects of tobacco smoking are considered fully in the light of the latest available evidence. Indeed, it would be difficult to think of any aspect of the subject that has not received adequate and expert attention. Each chapter has an extensive bibliography, the number of references ranging from 60 to 270.

It is not the wide coverage and extensive bibliography that alone make this volume such an important one for education and reference. Of far greater importance are the author's familiarity with the clinical and experimental work in this field, his broad clinical knowledge, his admirable judgment, and impressive wisdom. There are few, if any, topics that are not illuminated by his perceptive comments. The brief statements of his own beliefs and practices, which conclude almost every discussion, bear eloquent testimony to his experience, understanding, and balanced judgment. There may possibly be a number of cardiologists who could assemble the enormous amount of material upon which this book is based, but I think there are very few whose experience and training, whose qualities of mind and character, would enable them infallibly to separate the essential from the unessential and to interpret the important facts convincingly, wisely, and modestly. On almost every page the book reveals knowledge derived from the day-by-day care of patients; it could never have been written by one whose life has been spent in teaching and investigation.

In the judgment of this reviewer it is a superb and exciting book, a splendid summation of our knowledge of the disease which, in many parts of the world, is recognized as the most serious and most challenging of all. If cardiologists and internists would use it for constant reference, the diagnosis and treatment of angina and myocardial infarction would improve enormously. To all physicians who accept the responsibility for such diagnosis and treatment, and to all who teach doctors and medical students, it is commended without reservation and with great enthusiasm.

H. M. MARVIN


There has been an increasing need for a book on cardiology covering diagnosis and treatment of heart conditions encountered in the pediatric age group. The field of congenital heart disease has developed tremendously in the past few decades due both to extraordinary advances in surgery and to clarification of physiopathology and diagnostic findings by cardiac catheterization and angiocardiography. Advances in rheumatic fever with use of prophylaxis and hormone therapy have been striking. The great majority of initial attacks of rheumatic fever occurring in childhood and the very nature of congenital heart disease place these two major etiologic categories of heart disease initially in the hands of pediatricians or general practitioners caring for infants and children.

Several factors are important in the achievement and delineation of optimum total management of cardiac problems as seen in infants and children. A working knowledge is basic concerning children's normal development, their needs, outlets, and activities, both physical and emotional. In the more recently developed field of congenital heart disease extensive clinical experience, as well as personal familiarity both with the special technics of investigation and the related fields in therapy, has been essential to bring the growing information into clear focus for diagnosis, specific treatment, and general management of the individual case. Dr. Nadas has eminent qualifications for writing on pediatric cardiology. With a background as a
BOOK REVIEWS

well-trained pediatrician he had the benefit of a general pediatric practice in a small community before starting his work as cardiologist in the Children's Medical Center in Boston. The experience of the past 10 years' work in that institution forms the basis for much of the data presented in his book. It is obvious that a close relationship with mutual benefit has existed between the staffs of pediatric cardiology with its physiologic laboratory and the staffs of such allied fields as radiology, surgery, and anesthesiology.

The book, which is introduced by Dr. Nadas as a handbook for pediatrician, general practitioner, and medical student, fulfills this purpose admirably as well as being of great value to specialists and teachers in the field. The approach is well rounded and practical.

In the first section dealing with tools of diagnosis, there are many helpful suggestions concerning the standard methods of cardiac examination as applied to children. Chapters on radiology and electrocardiography underscore and illustrate the vital importance in accurate diagnosis of full and integrated use of these technics, especially in congenital heart disease. Cardiac catheterization and angiocardiography both in the descriptive chapters and throughout the book receive appropriate consideration of their value, an equally appropriate respect for risks with consequent well-balanced recommendations as to indication for diagnostic use of these special technics. Excellent clinical description of acute rheumatic fever, its course, and rheumatic heart disease as seen in childhood are drawn from the extensive experience of the House of the Good Samaritan. Indications given for the use of hormone therapy appear sound at current writing. The extreme degrees of restrictions recommended for the entire period when any evidences of active carditis are present can be seriously questioned primarily as to medical justification as well as to psychologic advisability and actual feasibility under most circumstances. Concerning indefinite prophylaxis in rheumatic subjects and mandatory extensive antibiotic therapy for sore throats at large the author is far less stringent in his recommendations.

Other chapters on acquired heart disease dealing with pericarditis, arrhythmias, and congestive failure in pediatric practice are excellent. The presentations on hypertension and on myocardial diseases are outstanding. An earlier analysis of conditions grouped as primary myocardial diseases has been amplified, and the author's unusually wide experience in diagnosis and treatment of these rather rare but important differential problems seen particularly in infancy is most valuable.

Over half the book is devoted to congenital heart disease. The incidence and anatomy of each anomaly are briefly described, and physiopathology is clearly outlined, especially as related to the total clinical findings. The importance of variation in effect dependent on the severity of the lesion present in individual cases is well stressed in relation to diagnostic findings, need for special studies, and recommended therapy. Differential diagnosis is particularly well handled. Established methods of surgery in appropriate types of lesions are well described, the risks in each being fairly outlined. The book is of necessity somewhat restricted in respect to surgery as at the time of writing the open-heart technics were only in their earlier stages of development.

A brief, helpful chapter on anesthesia for children with heart disease is included, prepared by Dr. Robert M. Smith, Chief anesthesiologist of the Children's Medical Center.

The style of the book is straightforward, lightened by occasional touches of appropriate humor, and makes for easy reading. The format of the printed page is excellent. Although of considerable length the book is light and readily handled. Illustrations are profuse. Clear diagrams and frequent tabulations of data for differential diagnosis are most effective in summarizing physiologic and clinical data. It is unfortunate that the reproductions have frequently lost clarity of finer details in electrocardiograms and especially of the pulmonary vascular markings in x-rays. References are well selected.

Dr. Nadas has undertaken a large task, fulfilled it with distinction to himself and with great benefit to those who undertake the care of cardiac children, be they pediatricians, general practitioners, or adult cardiologists who quite frequently must advise concerning younger cardiac cases.

JANET S. BALDWIN


The region of the shoulder girdle presents a most complex area from the viewpoint of the relationship between the numerous structures that pass between the thorax and the head or the thorax and the upper extremities. These are in such close proximity to bony and muscular structures that relatively minor abnormalities in relationships are capable of producing serious secondary complications. Although interest in this field was activated during the past war and has been continued since, the time is long overdue for an authoritative monograph dealing with this subject. Dr. James E. Bateman has produced such a monograph, which should be of the greatest use to internists and specialists in cardiovascular disease as well as to general practitioners and to orthopedic and general surgeons.

Downloaded from http://circ.ahajournals.org/ by guest on October 31, 2017
The subject matter is carefully developed beginning with the evolution and applied embryology of the shoulder region and with the development of congenital abnormalities. The applied, variational, and radiographic anatomy of the shoulder girdle is dealt with extensively with excellent reproductions. The physiology of the shoulder with the mechanics for all types of motion is covered in detail. Thus a basic pattern for a sound understanding is laid.

The author then develops the technic for examination of the shoulder region and the differential diagnosis of disorders of the shoulder region, including those with shoulder-neck pain as well as those in which shoulder pain and radiating pain predominate. He includes all known possibilities; of particular interest to cardiologists are his sections dealing with cervical rib, the scalenus anticus syndrome, the costoclavicular syndrome, the hyperabduction syndrome, sleep dyesthesias, and many other related conditions. The last chapters deal with nerve injuries, tumors of the shoulder region, fractures and dislocations of the shoulder region, and the assessment of disability in the shoulder region. Since many of these conditions may impinge upon and be associated with vascular problems, the points that are contained in these chapters are also of practical and scientific interest to men who treat diseases of the circulation.

This book is highly recommended for all who have occasion to treat or exhibit an interest in this field.

IRVING S. WRIGHT


This book covers all the important aspects of diagnosis and treatment in the field of peripheral vascular diseases. It is edited by Dr. Saul S. Samuels and he has written 3 of the 24 chapters. There are 16 additional contributors to the volume.

Although the book is presented in textbook format it is not well integrated and is more like a series of short monographs presented in chapter form than like a textbook. Many of the chapters are excellent but several show a lack of detailed knowledge of historical and clinical aspects of the subject.

Unfortunately no consistent classification or terminology (such as that of the American Heart Association) is followed throughout the book. In some parts of the book the inconsistent terminology is confusing, as is the use of non-specific terms such as “vessel” instead of “artery” when exclusively arterial disease is discussed.

The chapter title “Arteriosclerosis — Atherosclerosis in Relation to Diabetes” is misleading, as the chapter is largely concerned with the general problem of arteriosclerosis and atherosclerosis, and the association with diabetes is considered only incidentally.

Opinions expressed in some of the chapters, especially those entitled “Senile Obliterative Arteritis” and “Endarteritis Obliterans,” are controversial and as presented by the author of the chapter are not supported sufficiently by detailed factual evidence to be included in a textbook that may be used by many physicians not as yet experienced in the field of peripheral vascular diseases. Also, in the chapter entitled “Senile Obliterative Arteritis,” too much dependence is placed on aortography and arteriography rather than on histologic examination for interpretation of underlying pathology.

With so many contributing authors some conflicts of opinion and overlapping of discussions are unavoidable. However, there are several important places in this book where there are contradictions, or at least serious differences of opinion, which would confound the reader inexperienced in vascular diseases and would frustrate the experienced reader. In several chapters the histamine flare test is stated to be of considerable value in estimating the degree of arterial spasm or arterial insufficiency in an extremity, whereas in the chapter entitled “Examination of the Patient” the test is stated to be unreliable and, if used alone, to be misleading. In one chapter it is stated that in determining whether or not the pulse cannot be felt because of spasm or organic (thrombotic) occlusion, it is far better to examine the pulse by means of an oscilometer than by other means, such as palpation, whereas in the chapter entitled “Examination of the Patient” it is said emphatically that oscilometry cannot distinguish between spastic and organic disease.

In the chapter “Senile Obliterative Arteritis” it is implied that sympathectomy for the relief of intermittent claudication is advisable for many patients with occlusive arterial disease and that the results are good in 60 per cent of the patients, whereas in the chapter “Sympathetic Innervation of the Peripheral Blood Vessels” it is questioned that sympathectomy is of value in the relief of intermittent claudication and it is stated that the procedure is not indicated for intermittent claudication alone in patients with occlusive arterial disease.

Despite these criticisms the volume contains up-to-date information about many subjects of current interest in the field of vascular disorders.
Some of the chapters in the book are outstanding, including the chapters entitled "Physiology of Sympathetic Innervation of Peripheral Blood Vessels," "Examination of the Patient," "Thromboangitis Obliterans," "Raynaud's Disease and Raynaud's Phenomenon" and "Anticoagulant Therapy," to mention only a few. The presentation of technic in the chapter entitled "Angiology" is superb and has an appropriately conservative attitude as to the routine use of these technics. Consideration of the diagnostic application of peripheral angiography as related to treatment could have been more detailed, especially in regard to the newer technics of arterial grafting and bypass operations.

The publishers have done an excellent job in producing the book. The illustrations in the main are very clear and the type is easily readable. This is not a book to be recommended as a whole for the medical student or general physician or surgeon inexperienced in the field of vascular diseases, because of the sections of the book that are not in accord with modern and generally accepted concepts of peripheral vascular diseases and that require critical evaluation by the reader.

EDGAR A. HINES, JR.


The gratifying progress in our knowledge of cardiovascular disease is reflected vividly in the speed with which textbooks are outdated. The second edition of Friedberg's *Diseases of the Heart*, appearing after an interval of only 7 years, necessitated extensive rewriting of almost every chapter. Part I consists of 3 new chapters on graphic methods of cardiac examination. These include discussions of roentgenologic examination of the heart, angiocardiography, electrocardiography, vectorcardiography, ballistocardiography, phonocardiography, and cardiac catheterization. These technics are clearly described with particular reference to the normal. They thereby provide orientation for the discussions throughout the book of these methods as they are related to cardiovascular disease.

Discussion of the various aspects of heart disease is comprehensive and detailed. The sections on congestive heart failure, angina pectoris, acute coronary occlusion, and myocardial infarction constitute excellent monographs. Certain special problems of the circulation are reviewed with admirable critique. These include the heart in hyperthyroidism, the heart and circulation in myxedema, traumatic heart disease, cardiac tumors, pregnancy and heart disease, and management of cardiac patients requiring major surgery.

This text is remarkable in combining in proper balance, the pathologic physiology, pathology, and clinical signs and symptoms of heart disease. The style is simple and clear. Extensive bibliographic references follow each of the 49 chapters. The book is an outstanding accomplishment and is strongly recommended to all physicians.

HERRMAN L. BLUMGART


The differential diagnosis of chest pain is an ever-present problem, and frequently a perplexing one. One aspect that is often overlooked is the radicular syndrome with symptoms that closely simulate those of coronary artery disease.

In this text the author describes cervical and upper thoracic root syndromes in considerable detail and with an abundance of case illustrations. Starting with the historical background, he carefully develops the concept of root syndromes and reviews the mechanics, nerve supply, and segmental patterns. There is a thorough section on diagnostic signs and a brief review of the roentgenologic aspects. The case histories illustrate symptoms that are due to root compression but that could easily be mistaken for those of frank coronary artery disease, or, in some instances, could be due to pulmonary or cerebral involvement. One very important point that the author stresses is the possible co-existence of root compression and active coronary artery disease. Spinal tenderness is very frequent in chest pain of root origin and thus serves as a most useful sign.

The diagnostic and therapeutic importance of traction is described throughout the text. The last section describes other or concomitant forms of therapy, such as exercises and postural correction, as well as a more detailed description of traction.

This book should increase the awareness of chest pain that may be due to cervical or thoracic root compression and is recommended to those who should be interested in this phenomenon.

LEONARD H. SCHUYLER


This is a carefully revised edition of an unusually popular summary of the subject of pathology. It is such a well written and complete...
synopsis of the subject that many medical students read only this book. This is the fault of the student. The text is the longest and the number of figures the largest of the 4 editions. Some old figures have been omitted, new ones substituted, and a few added. There has been a striking improvement in the quality of the reproduction of these figures, even of the old ones, perhaps due in part to the improvement of the quality of the paper. For a rapid survey of the subject this book can be recommended highly, and the reviewer predicts that the continued demand for the book will insure new editions for many years to come.

HARRY GOLDBLATT


This is a personal account by a college instructor of his subjective, factual, and spiritual experiences in an attack of acute myocardial infarction. For the physician it will afford insight into the psychologic reverberations of the illness on an intelligent patient. For the reader, whether or not a physician, it will also evoke admiration for the author, for this delightful tale reveals gallantry, wisdom, wit, modesty, and the literary ability to express his inherent qualities. These 45 pages contain high humor, deep tragedy, succinct reflections on life and death, and delightful reflections on the art of painting.

HERRMAN L. BLUMGART


In this liberally illustrated book the author discusses the methods and apparatuses used for direct and indirect rapid serial and cinematographic radiography as developed and used by the team of radiologists, internists, and surgeons at the Bonn Clinics. The special part deals first with the application of these methods in the intestinal and respiratory tract; the cardiologist, however, will be interested mainly in their use for the cardiovascular system.

It is advisable to have fluoroscopic facilities during the performance of angiography. The immediate observation during injection gives evidence of success or failure of the examination so that, in the favorable case, one has not to leave the needle or catheter in place until the films are processed. In extremity angiography, arteriography as well as venography, film succession in 1-second intervals is appropriate. For angiography no fewer than 3 frames per second should be used. If the indirect method (photography of the screen image) is used, a 70-mm. film is preferable to the 35-mm. film because of greater detail. For angiography the author's team uses Perabrodil M (Bayer) 80 per cent (corresponding to U.S.A. Diodrast) to a maximum dose of 50 ml. This review is confined to these few statements because the treatise deals mainly with radiologic methodology and uses clinical examples only for illustration and evaluation of different technics.

FELIX G. FLEISCHNER


This book offers an interesting approach to the study of roentgenology. The presentation incorporates detailed normal radiographic anatomy, the roentgen signs that involve basic concepts of roentgen pathology, and the clinical possibilities that may be interpreted from the film. Throughout there are many excellent diagrams, illustrations, and film reproductions. In addition, the book is quite comprehensive, including most disease complexes seen in a busy hospital and some of the rare oddities. It is so all-inclusive that it perhaps loses some of its teaching value as a text for medical students but not for residents in radiology. It would, however, be attractive to general practitioners who do not have access to a trained radiologist. Included are short chapters on radiographic technic, physics, and radiation protection. Approximately one third of the text is devoted to the skeletal system, of special interest to the orthopedic surgeon. The chapters concerning the lungs and mediastinum are commendable in that they include some of the newer concepts of pulmonary parenchymal and vascular disease.

Of special interest to the cardiologist are 2 relatively short chapters, "The Radiography of the Heart," and "Congenital Heart Disease." The author describes in detail the radiographic anatomy of the cardiac silhouette as usually seen on the conventional views of the chest. These are excellently illustrated by diagrams. Included are comprehensive paragraphs on cardiac mensuration and the factors that influence it. The short chapter on congenital heart disease is a good basic outline. The final chapters of the book are of interest to the urologist, gastroenterologist, and gynecologist.

The author has made a valuable contribution to those interested in roentgenology, particularly residents in radiology.

ARNOLD L. BETENBORG