Book Reviews

Orthopaedics, Essentials of Diagnosis and Treatment. *Edited by Charles R. Clark and Michael Bonfiglio. 389 pp., illustrated. New York, Churchill Livingstone, 1994. $59.95 (paper). ISBN 0-443-08807-1.*

Aching bones and joints seem to be a universal malady for those of us older than 40 years. Not surprisingly orthopedic complaints comprise about 10 percent of visits to most family physicians, and osteoarthritis ranks among the five most common chronic medical problems. Accordingly, one would expect a plethora of good texts that address primary care orthopedics. Such is not the case, however, and for this reason *Orthopaedics, Essentials of Diagnosis and Treatment* fills an important niche.

The text is divided into two major sections — Physical Diagnosis and Problems of the Musculoskeletal System. This format follows the typical pattern by which a clinician assesses a patient. The first chapter of Section 1 outlines a pragmatic approach to evaluating musculoskeletal injury. Subsequent chapters in the first section describe the examination of each joint. The final chapter of Section 1 reviews the use of radiology as an adjunct to diagnosis. Having collected this information, the clinician moves to the realm of specific orthopedic diagnosis.

Section 2 — Problems of the Musculoskeletal System — begins with a discussion of the pathophysiology of pain, a logical inclusion, because most orthopedic complaints center around painful joints. A discussion of specific fractures, soft tissue trauma, and problems specific to each anatomical area follows. Special chapters review sports injuries, pediatric problems, musculoskeletal tumors, and aspects of arthritis. A single chapter entitled Prosthetics, Orthotics, and Orthopaedic Rehabilitation introduces the inexperienced clinician to a number of orthopedic devices but unfortunately fails to discuss salient principles behind the uses of orthoses and totally neglects the areas of rehabilitation.

The most useful portions of this book include most of the section on physical diagnosis; the chapter on orthopaedic radiology; and the chapters on fractures, soft tissue injuries of the hand, and evaluation of neck, back, and hip pain. Family physicians will appreciate that the emphasis in the Low Back Pain chapter is on understanding the injury through a thorough history. Weaker areas of the text include the pediatric orthopedic examination (although the chapter on specific pediatric problems is excellent) and the rather brief overviews of sports injuries and arthritis.

The text is richly supplemented with simplified anatomical drawings. The good use of pictures to demonstrate techniques of physical examination is also quite helpful. In addition, the chapters have numerous reproductions of radiographs, which do an excellent job of illustrating fractures, tumors, and arthritic changes.

This book is dedicated to Dr. Michael Bonfiglio, who during 40 years of teaching developed the orthopedic curriculum at the University of Iowa School of Medicine. The common-sense approach he advocates reminds us that good orthopedic care has been practiced since the time of Hippocrates. As the text advocates, physicians need a solid understanding of the anatomy of the musculoskeletal system and basic principles of healing. In an era of high-tech medicine many physicians might forget that the principles of orthopedic medicine were well established before the invention of radiology. In this regard experienced family physicians, residents, and students should find this text a useful guide to taking good care of musculoskeletal problems by relying on the time-honored skills of careful history and physical examination.

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Differential Diagnosis. *Edited by Jeremiah A. Barondess and Charles C.J. Carpenter. 993 pp., illustrated. Philadelphia, Lea & Febiger, 1994. $75. ISBN 0-8121-1446-9.*

Differential Diagnosis is a hardcover, 1.8-kg, 18×26-cm, 968-page, 5-cm thick text. With a couple exceptions, most chapters have few tables, figures, or other illustrations. The editors never specify the intended audience. Inferring from the substance of the material, its intended audience is elite academic internists, particularly those who become unbearable between issues of *The New England Journal of Medicine*, anxiously awaiting the thrill of discovery in the next "Case Record." I have difficulty envisioning many family physicians who would find *Differential Diagnosis* useful.

The editors set excellent goals in the Preface: "Clinical wisdom emerges as the result of the thoughtful and assiduous pursuit of excellence, not only in the gathering of clinical data, but in assigning appropriate weights to them, and in learning to assemble them .... In this book we have attempted to lay out this process." Continuing in Chapter 1 (Some Introductory Considerations), the editors appreciate "the distinction between *disease* and *illness*," illness being the subjective experience "that brings the patient to the physician, whereas it is disease that is usually sought in the diagnostic process." Further, they state that "disease and illness are not necessarily congruent; either may exist in the absence of the other." The concepts are family practice-friendly; the implementation is not.

Chapter 2, Medical Decision Making, should be a required chapter for *all* general textbooks of medicine; I applaud the editors for having the insight to include it; however, this *Differential Diagnosis* rendition of the topic is obtuse and lacks sufficient illustrative case material for those not already familiar with the concepts.

The remainder of the book is a hodgepodge of chapters, some dealing with symptoms (e.g., Chest and

Abdominal Pain), some with physical findings (Congestive Heart Failure), some with pathophysiologically related entities (Embolic Syndromes, Serous Cavity Effusions), some with specialty areas (Some Neurologic Syndromes), and some with organ systems (Diseases of the Liver). Each chapter has interspersed illustrative clinical vignettes, which are highly variable in adding value. Additionally, at the conclusion of each chapter, the text contains multiple illustrative cases from *The New England Journal of Medicine*'s Case Records of the Massachusetts General Hospital. For example, the chapter on chest and abdominal pain concludes with five such cases: (1) "Mucinous Adenocarcinoma of Colon Metastatic to Right Ventricle, with Pulmonary Tumor Emboli and Infarcts," (2) "Eosinophilic Gastritis," (3) "Tuberculous Enterocolitis," (4) "Chronic Histoplasmosis of Mediastinal Lymph Nodes, with Rupture into Esophagus and Secondary Acute Streptococcal Lymphadenitis," and (5) "Mesenteric Venous Thrombosis." These are the *pieces de resistance* in a chapter that does not include irritable bowel syndrome or panic-anxiety attacks and has one sentence on esophageal spasm.

While declaring that the difference between this text and many others is that most others provide a disease-by-disease description, this one actually does much the same thing, simply in a less comprehensive and more disorganized fashion. The addition of multiple *New England Journal of Medicine* clinicopathologic cases with differential diagnoses and discussions at the end of each chapter might help clarify the processes inherent in clinical thought for some family physicians, and this text would be useful for them. *Differential Diagnosis* is certainly not the place to look for those entities most commonly encountered in family practice.

The editors and authors of *Differential Diagnosis* indicate that diagnosis in internal medicine is a deductive process, that from a wealth of data the pertinent facts can be culled to form a diagnosis. I believe what family physicians do is inductive. With an incomplete data base and a paucity of information, we efficiently induce diagnoses. *Viva la difference!*

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Common Medical Diagnoses: An Algorithmic Approach. Second edition. *By Patrice Healey and Edwin Jacobson. 231 pp., illustrated. Philadelphia, W.B. Saunders, 1994. $35 (paper). ISBN 0-7216-5401-0.*

Clinical algorithms are visual representations of the decision-making pathways that lead to diagnosis. They can assist the physician in the evaluation of a particular sign, symptom, or laboratory abnormality. Certainly they should not substitute for respect for individual patient variation. The authors of *Common Medical Diagnoses: An Algorithmic Approach* originally intended the book for medical students and house officers but propose that the established clinician would benefit from the compendium.

The book groups algorithms for specific problems or complaints by body system, including generalized disorders; respiratory, cardiovascular, gastrointestinal, renal, acid-base, and electrolyte disorders; and hematologic, neurologic, endocrine, skin, and musculoskeletal disorders. Each algorithm is displayed typically in 1 to 2 pages. Accompanying textual material provides useful information to assist in determining the better pathway. Each algorithm is cross-referenced to two medical texts, *Cecil Textbook of Medicine* and *Harrison's Principles of Internal Medicine*, and the Index is well formulated.

The algorithms vary in their clinical appropriateness. Algorithms for specific abnormalities, such as hypokalemia, appear fairly straightforward. Yet, there are two major concerns about some of the algorithms designed for clinical signs or symptoms. First, the authors indicate in the Introduction that one should assume the evaluation of a specific problem by algorithmic method should initially include a history and physical examination. Several "forks" in the "middle" of specific algorithms, however, require solicitation of historical information. For example, in the algorithm for fatigue, a nutritional history follows an evaluation for occult malignancy. Second, the sequence of tests that are necessary to evaluate a particular problem do not always seem to conform to a sense of first performing less costly, less invasive, and less harmful procedures or tests. For example, in the algorithm for acute diarrhea, performance of a sigmoidoscopy precedes the ordering of stool test for ova and parasites. Or, in the algorithm for cough, the chest radiograph is the first test in the pathway.

In summary, many of the algorithms, particularly those involving abnormal laboratory tests, would clearly serve as useful adjuncts in the evaluation of a particular problem. Given the pressures of managed care environments and the new era of evidence-based practice guidelines, however, some of the algorithms probably do not meet the dual standards of cost effectiveness and medical appropriateness. Learners, particularly, must be careful to avoid strict adherence to the algorithms. For the practicing physician, the book might be used selectively in problem assessment, but specific algorithms seem less practical and costly. Clinical practice guidelines for set problems will become increasingly important for primary care physicians, but they need to be carefully evaluated for evidence of effectiveness and minimization of risk to the patient.

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