Endovascular skills: Guidewire and catheter skills for endovascular surgery

Peter A. Schneider; 2nd ed; New York, NY; 2003; Marcel Dekker; 358 pages; $175.00

This book represents a nearly all-inclusive treatise for the initiation and development of endovascular skills. Importantly, it also addresses the medical judgment issues necessary in the application of the techniques described and illustrated. The target readership includes all vascular surgeons, vascular fellows in training, and radiology residents with an interest in vascular interventions.

The author is a vascular surgeon who has acquired an extensive endovascular experience in both catheter-based vascular diagnosis and therapy. Arteriography for “strategic planning” and for intervention is an essential tool for the vascular surgeon; as he points out in the introductory chapter, “The idea that one set of physicians understands the patients and their problems and an entirely different set performs the procedure is a failed paradigm.”

The book is organized into two parts: basic endovascular skills and endovascular therapy. Part I begins with “How to Get In” and moves logically and efficiently to fairly advanced guidewire and catheter skills, including selective catheterization of brachiocephalic, visceral, renal, aortic, and infrarenal arteries. The material presented includes detailed discussions and charts ranging from the expected topics concerning catheters and guidewires, to room set-up, imaging equipment, a primer on imaging and radiation safety, contrast materials, sedation options, and thoughts on the future of invasive angiography versus computed tomography and magnetic resonance.

Part II is dedicated to actual endovascular therapies using balloon angioplasty and stenting procedures. Very specific topics are reviewed in detail. Topics detailed in one chapter include selecting the appropriate stent, tapering a stent, moving a self-expanding stent, reconstraining certain stents, bail-out maneuvers for balloon-expandable stents, and an analysis of acute and chronic complications of stents.

Each chapter follows a general pattern of presenting its topic in detail, with honest assessment of the pros and cons, and inter-spersion of highlighted selections such as “Plan of Attack,” and “Angio Consult” and “Technique.” In each of these chapter sections, eg, “Crossing an Occlusion,” there is a detailed, step-by-step tutorial that leaves nothing to the imagination.

In both Parts I and II, the illustrations are extensive, clear and concise, and well indexed, and they complement the text. The text reads easily, is informal, and makes the reader feel very much as if he or she is sitting in a back room of the operating room or angiogram suite and having a conversation with a colleague.

The book includes a chapter on carotid, subclavian, and carotid interventions, but the author specifically does not include carotid bifurcation angioplasty and stenting. The author states in the preface that he feels open carotid endarterectomy is the procedure for which the best type I evidence exists, but he feels that open carotid endarterectomy will “diminish in importance as an option.” However, “present conditions include significant unknowns which indicate that carotid bifurcation angioplasty and stenting should be performed under the auspices of studies approved by the institutional review board of a particular facility.”

The book also does not address the topic of stent-graft interventions for aneurysm, occlusive disease, or trauma. However, the techniques for general access and stents are readily translatable to stent-graft applications.

This is a well-written, nicely illustrated text that achieves its objectives and is highly recommended to the target audience.

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Vascular surgery: Principles and practice

Robert W. Hobson III, Samuel E. Wilson, Frank J. Veith; 3rd ed; New York, NY; 2003; Marcel Dekker; 1292 pages; $250

For the surgical resident “growing up” in the late 1960s there existed 1 textbook devoted to vascular disease. Peripheral Vascular Diseases (usually referred to by the last names of its authors “Alan, Barker, and Hines”) was first published in 1946, with subsequent editions appearing regularly thereafter. None of the authors were surgeons, and lengthy surgical detail was not included. In 1976 Dr Robert Rutherford edited the first systematic and exhaustive text on vascular disease and vascular surgery. The appearance of that text was a milestone in the maturing of vascular surgery as a specialty. Today I count on our hospital library shelves at least 6 general textbooks on vascular surgery as well as numerous monographs and atlases. How to incorporate these various books into one’s professional library is a challenge.

Vascular Surgery: Principles and Practices, by Hobson, Wilson, and Veith is now appearing in its third edition and is available in 1 thick volume that covers the field with systematic thoroughness. The editors are all active vascular surgeons with enormous personal experience and have been universally recognized as leaders in vascular surgery for several decades. Each has contributed substantially to the advances in the field that are well documented in their text. The multiple authors also represent a good combination of surgeons who have led the advances in vascular surgery over several decades along with a generous sampling of “the new generation of leaders in vascular surgery.” As one might expect, many of the senior authors have contributed to other texts as well.

In a text that includes 84 chapters and nearly 1300 pages, a reviewer can only sample the writing. Since atherosclerosis is the disease process responsible for the overwhelming majority of arterial disease, it is appropriate that 3 chapters address the mechanisms of atherosclerosis. There is overlap in the subject material as suggested by the titles, “Pathophysiology of Atherosclerosis,” “Pathophysiology of Human Atherosclerosis,” and “Epidemiology of Atherosclerosis and its Modification.” The authors of these chapters have all made substantial contributions to our understanding of atherosclerosis, and each chapter provides valuable insights. For the dedicated scholar in vascular disease, getting each author’s insight into atherosclerosis is of value, although an early student of vascular disease might wish for a single, more integrated explanation of the current concepts of atherosclerosis. The basic science contribution is further augmented by an excellent chapter on “Hemodynamics of Blood Flow,” which is a valuable contribution to our understanding of hydraulics as applied to the vascular system.

Six chapters deal with the medical management of atherosclerosis. Two again refer to mechanisms of atherosclerosis and are devoted to different categories of pharmacologic agents that can be used in acute and chronic arterial occlusive disease. Although each of these chapters provides useful and detailed information, the fine separation into numerous chapters creates a fragmented approach to patient management. One does not get an overall outline of how...