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**Practical Neuroangiography, 2nd ed.**

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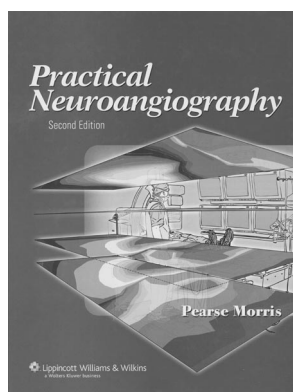
## BOOK REVIEW

**Practical Neuroangiography, 2nd ed.**

P.P. Morris. Philadelphia: Lippincott, Williams & Wilkins; 2006, 560 pages, 1047 illustrations, \$169.00.

With the publication of the first edition of Dr. Pearse Morris' *Practical Neuroangiography* text in 1997, it quickly became the standard for neuroangiography training in many radiology residencies and neuroradiology fellowship programs. With the newly released second edition, Dr. Morris has further enhanced this essential neuroangiographic text. The text is presented in the style of a mentor providing a combination of didactic material, illustrative cases, and procedural pearls. The text is divided into 5 major sections: "Prelude," "Techniques and Safety," "Anatomy," "Vascular Diseases," and "Introduction to Interventional Procedures."

The first section, the "Prelude," provides 10 cases to remind the reader, or arrogant reviewer, of the wealth of information available from diagnostic cerebral angiography and also reinforces the information to be reviewed before performing an angiogram or an interventional procedure.



Section 2 discusses the "Techniques and Safety" of performing a procedure. This begins with a sobering discussion on the importance of adhering to strong ethical, scientific, and proven procedural standards when treating patients. These principles are stressed throughout the text. Although there is the feel of the author's personal experience in making these recommendations, most comments are well supported by the provided references.

There is a well-presented discussion of catheter selection, arterial access, and catheter manipulation. Diagrams have been added to the second edition in an attempt to assist the trainee in learning how to safely and successfully navigate the catheter to the target vessel. Information is provided on complications, how to treat complications that occur, and, more importantly, how to avoid most complications by strict procedural adherence. The concept of consistency is reinforced throughout the text as a cornerstone to improving procedural success and safety. Within this section, a concise chapter regarding radiation safety is provided and includes an excellent discussion of basic radiobiology and radiation risks. The reader is reminded of stochastic and nonstochastic radiation effects in a painless manner.

The third section is a discussion of "Anatomy." This begins with a brief outline of embryologic aspects to provide the basics for common developmental variation. This is followed by 9 chapters that discuss each segment of the arterial anatomy, beginning at the aorta and continuing through each primary intracranial vessel. This is followed by a discussion of venous anatomy within the craniocervical region. With the presentation of each vascular segment, the text delineates normal ana-

tomic appearance, expected anatomic variation, territorial supply, anastomotic/collateral pathways, areas of increased procedural risk and techniques to maximize safety, and a basic introduction to vascular pathology. The discussion within the text is well illustrated, with an extensive collection of angiographic images, cross-sectional imaging, and schematic line drawings.

Section 4 is a discussion of "Vascular Diseases." In each discussion of the various pathologies, Dr. Morris describes the appearance of the lesion, natural history of the disease process, therapeutic options, and possible complications of treatment. He notes what information is crucial in the determination of whether to treat and what information must be known before undertaking treatment. An example of this is a commentary by the author regarding screening for aneurysms in various asymptomatic populations, that is, persons with familial aneurysm history, patients with polycystic disease, and so forth. Incidence of aneurysms, risk of rupture, and well-documented characteristics of these aneurysms compared with de novo aneurysms are discussed. For de novo aneurysms, there is an extensive discussion of the natural history of nonruptured and ruptured aneurysms. Other vascular pathologies, including vascular malformations, arteritis, and dissections, are treated in a similar and complete fashion.

Section 5 is an "Introduction to Interventional Procedures." The initial chapter, the "Complete Apprentice" looks at the most frequently encountered pathologies treated with interventional neuroradiologic procedures and provides a checklist tailored to each topic with regard to specifics of the history and physical to be evaluated, procedural considerations, and postprocedural care. This is followed by chapters delineating major pathologies treated with endovascular techniques, including epistaxis, head and neck tumor embolization, thrombolysis, brain arterial venous malformations, aneurysms, dural arterial venous malformations, and angioplasty with stent placement. Excellent teaching point cases are provided to show the utility of the procedures, along with potential pitfalls and complications. Included is a discussion of embolic materials and implantable devices. The discussion of these procedures teaches basic concepts that have been standard for several years and are well established. For example, the aneurysm chapter discusses key concepts regarding treatment, procedural success, and durability. Primary coiling of the aneurysm is discussed along with balloon or stent assistance, and there is a discussion of treatment of intraprocedural aneurysm rupture.

This book incorporates significant tools to aide the reader. Each chapter begins with a list of key points that are important within the chapter, and there is extensive use of tables throughout the text to summarize the important information. There are eloquent descriptions of vascular relationships to the adjacent neural structures. However, these descriptions could be enhanced with more detailed schematic drawings that include the overlying brain structures to further illustrate these relationships.

In this day of MR and CT angiography, diagnostic catheter neuroangiography is rarely discussed. However, by reading just a few pages of this text, one begins to realize that the so-called "death of diagnostic neuroangiography" is rather premature, as the reader's mind is opened to the enormity of

information that can be obtained from a single angiographic study and that can aid in the determination of a treatment plan. This book is written much like didactic medical training, with key points presented early in the text and then reinforced throughout the text with excellent case illustrations.

In summary, *Practical Neuroangiography* is the mentor that is no longer available to many aspiring neuroangiographers.

The well-written and well-presented text serves as a study guide during training and also as a quick reference for practitioners. This book is an excellent training and reference resource for radiology residents, fellows, and attendings involved in neuroangiography and is well worth the stated price.

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