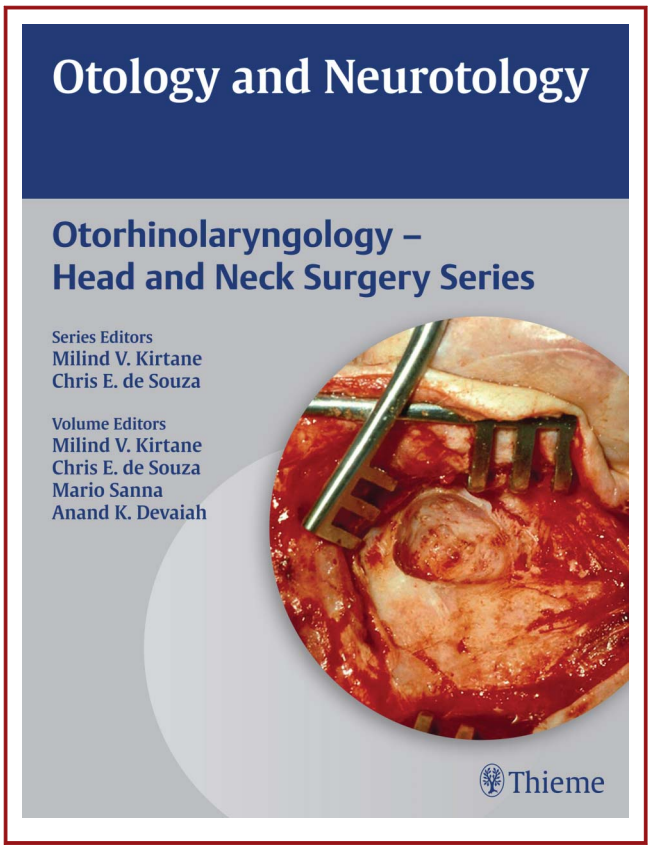

concise textbook. The section on basic sciences includes 10 chapters that include embryology, surgical anatomy, anatomy and physiology of hearing, diagnostic audiology, anatomy and physiology of the vestibular system, vestibular testing, temporal imaging, and molecular genetics. This information is covered in a concise 124 pages. Most chapters are 5 to 10 pages long and provide a wonderfully concise overview of the topics, encouraging the interested reader to seek more detailed descriptions in the cited references. The largest contribution to the basic science section comprises 33 pages of surgical anatomy contributed primarily from the terrific dissections of Dr Mario Sanna's anatomic laboratory. This chapter includes a well-selected 80 references for the interested reader to delve deeper into the anatomic details and approaches.

The sections on outer, middle, inner ear and the facial nerve comprise 20 chapters and 220 pages. Again, the concise plan of the book is followed, with chapters averaging 10 to 12 pages. Outstanding writing is noted in the thoroughly concise chapters on Eustachian tube disorders and the facial nerve.

The section on neurotologic and skull base surgery comprises 6 chapters and only 71 pages. These chapters cover acoustic neuroma, nonacoustic cerebellar pontine angle tumors, cancer of the temporal bone, tympanojugular paragangliomas, jugular foramen tumors, and skull base osteomyelitis. Unfortunately, this section of the book may be the weakest in that 4 of the 6 chapters are written by the same group of authors with little in-depth or evidence-based discussion.

The section on electronic listening devices includes 6 chapters and 52 pages. Chapters cover hearing aids, hearing rehabilitation and osseointegrated implants, cochlear implants, brainstem implants, robotics and image guidance, and experimental approaches in auditory neuroscience.

The series editors and, in particular, the volume editors have succeeded in putting together a valuable and accessible reference text in otology and neurotology. This text will appeal primarily to students, residents, and fellows in otology and neurotology as a primer that is "short and sweet." The book will be less relevant to practicing otologists and neurotologists because, by necessity, the chapters are too short to provide the in-depth discussion useful to advanced practitioners. Neurosurgical residents and attending staff should find this text an outstanding reference book to explore their overlapping world with neurotology and skull base surgery. The quality of the writing and the succinct style make *Otology and Neurotology* an enjoyable and informative read.

Disclosure

The author has no personal, financial, or institutional interest in any of the drugs, materials, or devices described in this article.

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Book Review: *Moyamoya Disease: Diagnosis and Treatment*

By: John E. Wanebo, Nadia Khan, Joseph M. Zabramski, Robert F. Spetzler
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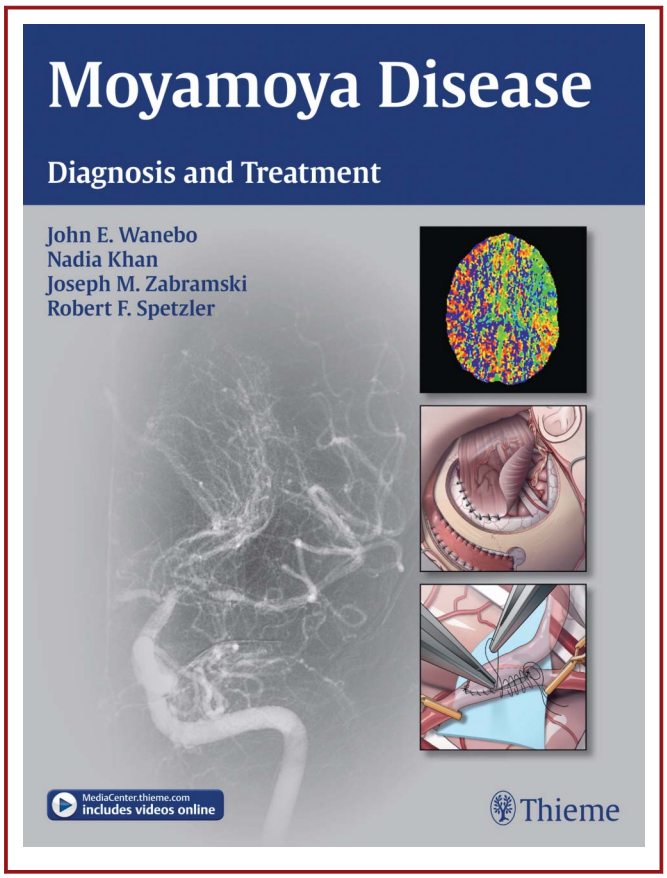
About 5 decades have passed since moyamoya disease was first described as a chronic occlusive cerebrovascular disorder characterized by bilateral stenosis of the supraclinoid portion of the internal carotid arteries with the formation of an abnormal vascular network at the base of the brain. The pathophysiology of moyamoya disease has been evaluated from several different points of view, and various kinds of surgical procedures have been developed in the past half-century. Yet, the number of moyamoya patients treated by any one clinician is low because of the rarity of moyamoya disease. Moreover, moyamoya disease has protean



characteristics in respect to age, ethnicity, sex, symptomatology, treatment, and prognosis. These facts make it difficult for individual clinicians to develop a clear understanding of moyamoya disease. It is thus very important for clinicians worldwide to share, standardize, and continually update their knowledge of moyamoya disease so that each clinician can manage moyamoya disease most effectively in clinical settings.

The book entitled *Moyamoya Disease: Diagnosis and Treatment* edited by Drs John E. Wanebo, Nadia Khan, Joseph M. Zabramski, and Robert F. Spetzler summarizes the achievements made in the past half-century of dedicated research on moyamoya disease. The book draws on the expertise of multiple authors to address the broad spectrum of moyamoya disease. It is composed of 3 sections with several chapters each, and each chapter is relatively short and easy to read.

The first section concerns the diagnosis of moyamoya disease. The definitions of moyamoya disease and moyamoya syndrome are clarified, and the characteristics of imaging modalities, such as computed tomography, magnetic resonance imaging, catheter angiography, and cerebral perfusion studies, as they pertain to the evaluation of moyamoya disease, are succinctly described. The topic of cerebral perfusion studies in moyamoya disease is given ample space in this book. We fully agree with this emphasis on cerebral perfusion studies as a means of investigating moyamoya disease. Accurate evaluation in cerebral perfusion studies is important because it affects preoperative, perioperative, and postoperative management of moyamoya patients and is directly related to patient prognosis. Rapid developments in the realm of genetic analysis of moyamoya disease have been seen in recent years, and it is noteworthy as a new approach to understanding the pathophysiology of moyamoya disease. The chapter on the genetics of moyamoya angiopathy in the first section covers the history of genetic analysis and recent genetic research on the subject of moyamoya disease. This should be helpful, as it will allow readers treating moyamoya patients to become more familiar with the available cutting-edge genetic knowledge of moyamoya disease. Each chapter is supported by many references, and the objectivity of the claims made in this text is extremely high. A section of each chapter is taken up by tables that give a summary of the topics being covered; these are valuable for arranging the topics.

The second section, which focuses on treatment options, is the best part of book: it describes not only the various kinds of surgical procedures, but also the available medical and endovascular treatments. Elsewhere, certain surgical procedures are often described as monotonous lists of surgical techniques, but this book provides narrative descriptions, which are theoretically persuasive due to many references to the literature for each procedure. A number of beautiful illustrations help the reader to understand the theoretical concepts of each type of surgery and the details of each procedure. Moreover, although this is the first attempt to integrate surgical videos into a textbook on moyamoya disease, I think that the attempt is brilliantly concluded with great success. Surgical videos and animations are easily available online. The image quality of each of the 11 videos is high, and the narration is understandable. These videos will be most useful for neurosurgical residents and fellows because they bring the operative field to life as a means of training new clinicians on the revascularization surgeries for moyamoya disease. The last chapter in this section addresses the anesthetic and perioperative management of moyamoya disease. Whether an individual moyamoya patient will receive the benefits of revascularization surgery depends not only on the surgeon's skills, but also on the perioperative management including anesthesia. This chapter refers to the details of intraoperative anesthesia management and neurophysiological monitoring. This is very practical and can serve as a useful reference for neurosurgeons and anesthesiologists.

The third section discusses the long-term outcomes of moyamoya disease, presenting data from the United States, Japan, and Korea. This is one of the most important issues because the typical age at onset of moyamoya disease is during childhood or young adulthood. An accurate understanding of the long-term outcomes of moyamoya disease is essential for good management of moyamoya patients over their entire lifetimes.

This book achieves the goal of worldwide sharing and standardization of cutting-edge knowledge of moyamoya disease and thus

will be useful to all neurosurgeons, neurologists, pediatricians, anesthesiologists, and neuroradiologists who participate in the management of moyamoya disease. Additionally, we strongly believe that the appearance of this book will heighten readers' ambition to research and overcome moyamoya disease.

Disclosure

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