

Neurosonology and Neuroimaging of Stroke

by José M. Valdueza, MD, Stephan J. Schreiber, MD, Jens-Eric Roehl, MD, and Randolph Klingebiel, MD, 399 pp, with illus, \$179.95, ISBN-13 978-3-1314-1871-5, Stuttgart, Germany, Thieme, 2008

Diagnostic ultrasonography in neurovascular disease has come a long way since its pioneers described properties of blood flow in healthy vessels, anatomical variants, collateral systems, and occlusive disorders. While conventional angiography continues to provide the most exact anatomical insight, it was neurosonology that afforded a functional understanding of cerebral blood flow and its regulatory capacities. Over the years, a number of handbooks on ultrasonography of cervical and cerebral blood vessels of all permutations of practical applicability have been published. Some are geared toward providing a manual and quick reference for the sonographer, others require highly interested readers and describe physical properties pertaining to ultrasonography per se and cerebral blood flow in great detail, and others yet are somewhere in between.

The 2008 published book by Valdueza and colleagues takes a novel approach by linking clinical information from 30 cases of stroke to neurosonology and complementary findings of neuroradiological examinations including conventional

angiography, cerebral computed tomography and magnetic resonance imaging, and magnetic resonance angiography. This is also what makes this book unique. The first third of the book is dedicated to basics of vascular anatomy, blood flow, hemodynamics, ultrasonography, stroke etiology, vascular pathology, and neuroradiological imaging techniques. Taken together, this sounds like a tremendous amount of information that, if not presented in a consistent and comprehensive fashion, can easily overwhelm the reader. However, Valdueza and colleagues handled the challenge to create an “all-in-one” book very well. In terms of the basics, everything is covered. Importantly, with every diagnostic method, they provide a brief evaluation of the limitations of the individual method based on scientific data. In their case histories, they meticulously describe findings, evaluations, and decisions made in each patient’s case, creating a virtual “as if” environment, easy to relate to. Because they rely on up-to-date and widely available methods, their descriptions gain direct practical relevance. While the background sections offer enough information to complement the clinical cases described in the book, it is really the in-depth description of a wide array of more or less common stroke etiologies that make this book worth considering for every library, personal or institutional, with an interest in neurovascular disease.

Overall, the illustration and presentation of the basics and clinical case reports is of very high quality

and highly informative. While one would have liked to see scales (eg, flow velocity and time) included with Doppler spectrograms, the figures and illustrations paint a comprehensive picture of findings pertinent to the individual case. This book will prove very useful to neurologists and neuroradiologists taking care of patients with neurovascular disease.

Prose	★★★★★
Illustrations	★★★★
Science	★★★★
Usefulness	★★★★★

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