

## REVIEWS OF EDUCATIONAL MATERIAL

James C. Eisenach, M.D., Editor

**Pain and Suffering.** By William K. Livingston, M.D. Seattle, International Association for the Study of Pain, 1998. Pages: 250. Price: \$31.20 (member) \$48.00 (nonmember).

William Livingston was one of the giants in the conceptualization of pain. At a time when most theorists adhered to a simplistic, push-button concept of pain, Livingston realized that many of the observations he and others made in regards to patients with intractable pain problems simply were inconsistent with the popular specificity theory, which was in vogue during his early career. Livingston was a man who constantly questioned his observations and "checked them for fit" against current beliefs and dogma. He tells of his early exposure to the "pain pathway," a view encompassing the hallowed three-neuron arc-peripheral nerve, the spinothalamic tract, and projections to the cerebral cortex as a rigid system, with pain intensity always being directly proportional to the stimulus. He then explains how this perspective was shaken when, as an intern, he painlessly opened a colostomy for a patient with a red-hot soldering iron. This spurred an interest in visceral pain and the eventual publication of a book of the topic. His ingenious experiments investigating visceral pain demonstrated to him that the adequate stimulus for visceral pain was different than for somatic pain. He takes the reader on a fascinating cognitive journey, during which he beautifully describes his experiences with patients while working as an examiner for the Oregon State Industrial Commission, which afforded him an opportunity to observe many patients with post-traumatic pain syndromes, including stump pain and phantom limb pain. As a reservist surgeon called to active duty in World War II, he had the opportunity to carefully collect information concerning more than 1,200 high-velocity missile injuries. In some of these patients, causalgia developed, as previously described by Weir Mitchell. Livingston started one of the first multidisciplinary pain clinics in this country during his tenure at the University of Oregon and published the book *Pain Mechanisms*. His theory of reverberating circuits within the internuncial pool of neurons in the dorsal horn was clearly prescient and one of the building blocks used in formulating more recent pain theories. He spent more 20 yr writing *Pain and Suffering*, in which he summarizes, in a semiautobiographic fashion, many of his most memorable patients and how they affected his evolving concept of pain.

*Pain and Suffering* was truly a pleasure to read. Livingston writes well and with great clarity. His humor is quite entertaining. The book should be read by all with a sincere interest in understanding the evolution of pain concepts during the past 50 yr. Livingston's humility in evaluating patients with complex pain problems is instructional for all. He touches several issues that are as difficult to understand today as they were in his time. For example, how can a patient receive prolonged, possibly permanent relief of pain as a result of local anesthetic blockade, despite the limited duration of action of local anesthetic? Based on his observation that the summation of long-term "irritative" peripheral input can maintain a state of heightened central sensitization, he acknowledges the rationale for treating as many sources of peripheral irritative input as possible when the patient's primary problem cannot be treated directly or such treatment has failed to adequately relieve the pain. This might be considered the battle cry of interventional pain management today in which, for example, it is reasonable to attempt to relieve severe, intractable migraine headaches with procedures aimed at pain generators in the head and neck region.

Throughout the book, he repeatedly reminds us that the "pain message" is subject to significant modulation at every level, from the peripheral nerve to the cerebral cortex, and that one must be careful to avoid mistaking the stimulus that causes the pain for the pain itself.

Isaac Newton once said, "If I have seen farther than others, it is because I was standing on the shoulders of giants." There is no question that many of the current pain theorists have enjoyed the view from Livingston's shoulders. I sincerely recommend this offering of the International Association for the Study of Pain press to anyone interested in chronic pain.

**William F. Spillane, M.D.**

Assistant Professor of Anesthesiology  
Wake Forest University School of Medicine  
Pain Control Center  
Medical Center Boulevard  
Winston-Salem, North Carolina 27157

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**Atlas of Regional Anesthesia, Second Edition.** By David L. Brown, M.D. Philadelphia, WB Saunders Company, 1999. Pages: 376. Price: \$125.00.

The second edition of this comprehensive regional anesthesia atlas has been updated and expanded. Dr. Brown has achieved his goal of using clear, simple images to describe the three-dimensional anatomy and approach needed to successfully perform a variety of nerve blocks. The use of color, magnetic resonance imaging, and cross-sectional anatomy with trademark "pane-of-glass" views make the art work very effective, and the shading and clarity of many of the diagrams have been enhanced in this edition. The atlas is organized first by regional anatomy, and then each block is described by perspective (indications, patient selection, drug choice), placement (anatomy, position, problems), and pearls (tips from the author's experience.) As in the first edition, one often has to flip pages to find figures referenced in the text, but this is a result of the number of large figures relative to text.

The chapters on brachial plexus block are thorough and well-illustrated, and this is clearly (and not surprisingly) today's best reference for infraclavicular and "plumb-bob" supraclavicular approaches. A bit more detail regarding needle angle to skin and recommended volumes of local anesthetic would be helpful.

Lower extremity peripheral blockade is gaining popularity, and the chapters regarding femoral, lateral femoral cutaneous, obturator, and sciatic block are beautifully illustrated and detailed. The sections about lumbar plexus and popliteal block need expansion, however. Injection of air before psoas block is outdated, and the fascia iliaca block goes unmentioned. The lateral approach to popliteal block and sciatic block at the level of the ischial tuberosity would be useful additions.

The chapters regarding head and neck, airway, and somatic and sympathetic blocks of the trunk are excellent and essentially unchanged in this edition. Although concern for local anesthetic toxicity is mentioned frequently, recommended maximum dosages for various blocks are not.

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New chapters in the second edition include infraclavicular, facet, sacroiliac, and superior hypogastric block, with the last three added for particular benefit to clinicians in pain management. The epidural section is substantially expanded, with superb detail of thoracic and cervical approaches.

There is further updating with the mention of continuous peripheral blockade (brachial plexus and femoral) and the question of subarachnoid lidocaine "neurotoxicity." The author's bias against single-shot perivascular techniques is apparent, and some would take umbrage (again) at the statement that those who recommend the use of nerve stimulators do more to impede than to advance regional anesthesia. Those criticisms aside, I recommend this atlas to residents and expe-

rienced clinicians who consider regional anesthesia to be a significant part of their practice. The price is average at \$125, and the improvements make this edition even more valuable than the first to help make regional anesthesia "work."

**Robert S. Weller, M.D.**

Associate Professor of Anesthesiology  
Wake Forest University School of Medicine  
Medical Center Boulevard  
Winston-Salem, North Carolina 27157-1009

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