

Book Reviews

B. Raymond Fink, M.D., Editor

Spin Labeling Methods in Molecular Biology. By G. I. LIKHTENSHTEIN (translated by P. S. Shelnitz). New York, John Wiley and Sons, 1976. Pages: 258. Price: \$33.00.

Spin labeling methods applied to ESR (electron spin resonance) spectroscopy have during the last few years become more and more popular in studies of the structures of biological and artificial membranes, the local topography and mobility of the binding sites or the layers in the vicinity of the bound labels, the changes of conformation in protein and lipid regions, and the determination of the distances between functional groups or molecules. Some of the more recent and sophisticated applications have been the use of double-resonance methods and the combination of spin labeling with other spectroscopic techniques, e.g., NMR (nuclear magnetic resonance). The spin labeling theory was elegantly applied to the exploration of biological systems in the late 1960's. Since then, these methods have been used with increasing frequency to identify molecular effects of pharmacologic agents, as well. Very recent explanations for the molecular mechanisms of anesthesia are based partly on results from spin labeling studies. Thus, some understanding of this technique and its applications for anesthesiologists seems warranted.

Likhtenshtein, who himself may be considered one of the pioneers in the field of spin labeling, has in this book briefly (maybe too briefly), but clearly, presented the problems, applications, and aspects of future development of spin labeling methods. He has succeeded in extracting the most essential parts of the theory and interpretations in a form easy for non-physicists to understand. However, the fundamentals of such topics as magnetic fields, magnetic momenta, spin-spin relaxation time, spin-lattice relaxation time, and hyperfine and g-factor tensors are not discussed sufficiently and must be studied elsewhere.

This book was finished in 1974, and consequently does not include the latest developments in spin labeling. The translation from the Russian original is very readable. One can recommend it to anesthesiologists interested or involved in molecular biology research, but someone not familiar with nuclear or electron magnetism and spin labeling will need to keep a handbook of physics nearby.

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Peripheral Nerve Block. Second edition. By F. L. JENKER. New York, Springer-Verlag/Wien, 1977. Pages: 116. Price: \$10.60.

This small volume, translated from German, is the work of a surgeon who attempts to "recall the art of nerve blocking" so ably practiced by surgeons of a bygone era (actually not so far bygone as is expressed in the Preface, since Koller's work was done in 1884 rather than 1848). However, that minor detail aside, it is a commendable book, which in simplest form is intended to encourage physicians to use diagnostic or therapeutic nerve blocks. It is broadly based in its thrust and will be of interest to a much larger group than just anesthesiologists. The author has worked hard to be precise and wastes few words. He desires to impart a "maximum of information in a minimum of time."

There is indeed a surprising amount of information which gives muscle to the text, but the skeleton is also apparent, as the book has an outline format. It is a practical volume that is better designed for your back pocket than for your bookshelf. The major portion is a repetitious analysis of indications and techniques for performing individual peripheral nerve blocks. Complications are discussed briefly and possibly too casually. This could lead the novice astray. Likewise, one should have a greater familiarity with local anesthetic drug pharmacology than is given in the brief introductory General Section. The final section, on transdermal stimulation, is perhaps an unwarranted appendage to the general theme of the book. Yet, the use of electric current in treating pain is of increasing significance, and here one finds a brief review of the science as well as the present state of that art. As a handbook on peripheral nerve block, this book fulfills its intended role admirably.

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Guidelines for Stroke Care. EDITED BY A. L. SAHS, E. C. HARTMAN, AND S. M. ARONSON. DHEW Publication No. 76-14017, Superintendent of Documents, U. S. Government Printing Office, Washington, D. C., 1976. Pages: 282. Price: \$1.70.

Guidelines for Stroke Care attempts to encompass the whole field of clinical cerebrovascular disease, from terminology, epidemiology and pathophysiology, through prevention, diagnosis and treatment. It also attempts an overview of nursing care for stroke victims, rehabilitation of those left with functional impairment, as well as the cost factors, manpower utilization and administrative organization of stroke-related services, all in a small paperback volume of 282 pages. On the whole, it succeeds quite well. The editors have elected to give a synopsis of each subject, e.g., transient ischemic attacks, stroke in evolution, subarachnoid and parenchymatous hemorrhages, enough to acquaint the neophyte with some basic knowledge, and then list a judicious selection of reference articles and books on the subject to guide the reader towards a more detailed discussion. With this format, a significant amount of data is covered in a very readable text. Emphasis appears to be placed on educating the primary care physician rather than the specialist, though the excellent bibliography makes it a valuable reference for all workers in the field. There is a very good, although somewhat simplistic, step-by-step evaluation of the stroke victim from fundamental management of the airway and parenteral fluid therapy through basic laboratory tests and radiologic procedures to differential diagnosis and medical or surgical therapy. There are important sections on organizing a rational system of stroke victim care in the community using the resources of community agencies and community hospitals as they now exist, with guidelines to improve and coordinate their functions.

The thrust of the book is for a concerted attempt to reduce the morbidity and mortality from cerebrovascular diseases by educating community physicians, nurses, and administrators on the optimal care of these patients. I would certainly agree with the book's conclusion, however, that "the success of these *Guidelines for Stroke Care* will not be gauged by immediate spectacular results. Stroke