BOOK REVIEWS

Ruptures of the Lumbar Intervertebral Disc. By R. Eustace Semmes, M.D. Published by

Dr. Eustace Semmes, the dean of disc surgery, has produced here a classical monograph
based on his personal experience with over 6,000 cases.

Since the author is addressing himself to beginners, one could wish that he had defined
his terms a little more clearly. Thus the intervertebral disc, it should be clearly mentioned,
and he implies, consists of the annulus fibrosus and the nucleus pulposus, and it is
the annulus that ruptures and the nucleus which herniates or extrudes.

Concerning myelography, not all of us are as secure in the diagnosis as the author, and
most of us continue to use myelography. It should be emphasized, moreover, that improvemensthas also occurred in this test. It is now no longer so painful, nor is there so
high a percent of misleading findings as when the author last used this procedure.

The author's attitude on the question of fusion alone, or together with disc removal, is
clear, authoritative, and unequivocal—it is "...unsuitable for the correction of ruptured
and herniated lumbar disc."

This entire small volume, economical of words, is like a bedside seminar by a wise,
benevolent, highly experienced elder statesman. Even if one cannot agree with every
detail, it is a highly readable and extremely valuable summary of accumulated clinical
wisdom on the subject of ruptured lumbar discs thirty years after Mister and Barr, and
should be in the library of every neurosurgeon young or old.

Leo M. Davidooff, M.D.

Histophysiology of Synapses and Neurosecretion. By Eduardo D. P. de Robertis, M.D.
Publ. on 7/27/64 by: Pergamon Press Book, The Macmillan Company, 60 Fifth
Avenue, New York, Price $10.00, 244 pages.

The first part of the monograph incorporates the ultrastructure, chemical composition,
and function of the synapse including many of the author's original contributions.
Synaptic vesicles, synaptic membranes, intersynaptic filaments and the subsynaptic web
are described. Many special synapses are discussed and alterations in synapses with
electrical stimulation and nerve degeneration are elaborated upon. The isolation of nerve
endings and synaptic vesicles from the central nervous system are described and the
author presents his views upon synaptic vesicles as units of transmitter substances.

The second part of this monograph includes a review of the important subject of
neurosecretion. The anatomy and physiology of the hypothalamo-hypophyseal system
are outlined, and the author supports the concept of formation of neurosecretory
substance along the entire length of the neurons. Another site of neuroendocrine function
considered included the storage of catecholamines in the cells of the adrenal medulla
and their release as a result of splanchnic nerve stimulation. The submicroscopic structure
of the pineal is also discussed and the effects of mono-aminoxydase inhibitors, reserpine,
and catecholamine precursors upon the plurivesicular material within axons and nerve
endings is reviewed. Finally, a chapter is devoted to secretion in adrenergic nerves.

A recurrent theme in this monograph is the presentation of a unitary concept of
synaptic and neurosecretory processes as manifestations of a more general neurosecretory
function of neurons.

There have been differing opinions in the literature upon many of the subjects re-
viewed in this book, but this monograph is a valuable presentation of the author's views on
this important subject.

Philip E. Duffy, M.D.

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