

# Book Reviews

B. Raymond Fink, M.D., Editor

**Dopamine.** Advances in Biochemical Psychopharmacology, Volume 19. EDITED BY P. J. ROBERTS, G. N. WOODRUFF, AND L. L. IVERSEN. New York, Raven Press, 1978. Pages: 422. Price: \$27.50.

This volume results from papers presented at a symposium held in the summer of 1977 at University of Southampton, England. It contains current knowledge of the anatomy, biochemistry, and pharmacology of the dopaminergic neurons in the brain (mostly rat brain). Several chapters cover the anatomy of the seven known dopaminergic projection systems—including two outstanding chapters by Lindvall and Bjorklund, and Arbuthnott. Much of the rest of the volume is a debate about dopamine receptors and feedback. Although the issue was not resolved, a preponderance of papers indicated that at least two types of dopamine receptors exist: one is related to adenylate cyclase, and the other is involved in its own presynaptic feedback inhibition. Particularly well written chapters by Keibarian and Woodruff highlight this section. Glaring by absence is a discussion of endocrinologic consequences of excesses and deficiencies of dopamine in specific brain regions.

Scientists involved in neuropharmacologic and neurochemical research should avail themselves of this well-referenced volume; there is little here for anyone else.

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**Anesthetic Management of the Patient with Cardiovascular Disease.** EDITED BY DANIEL M. PHILBIN. Boston, Little, Brown and Company, 1979. Pages: 197. Price: \$35.00 per annum.

This issue of the *International Anesthesiology Clinics* quarterly is one of many recent books addressing the problems of managing the patient with cardiovascular disease. As with any multi-author book, the style and manner of presentation vary considerably. The first chapter presents the standard information about the cardiac and peripheral vascular effects of anesthetic agents, including, oddly, those largely-abandoned warhorses diethyl ether, cyclopropane, and fluroxene. A few intravenous agents are treated, but the ultrashort-acting barbiturates and fentanyl are omitted. Many patients with cardiovascular disease will have anesthesia induced with thiopental, and a consideration of the effects of at least this agent seems in order. Fentanyl has a number of useful properties which particularly recommend it for use in cardiac patients—especially those with minimal cardiac reserves. The use of this drug is extremely widespread, and a failure to consider its pharmacology in reasonable detail is a serious omission. The pharmacology of neuromuscular blocking agents is considered in the next chapter in a well-organized and informative manner. However, the following section on cardiac arrhythmias is so elementary that it has little to offer the practicing anesthesiologist. The chapter on valvular heart disease is a jewel—an excellent summary of physiologic and anesthetic management, presented as a logical outgrowth of the pathophysiology. It will be of equal value to the beginner and to

the experienced anesthesiologist wanting to review this group of diseases.

The discussion of coronary-artery disease provides salient points of anesthetic management, but the organization is indifferent, for example, information pertinent to intraoperative monitoring of the electrocardiogram is scattered throughout several sections. Owing to a printing error, the intravenous doses of nitroglycerin and nitroprusside quoted are dangerously high: nitroglycerin 30–50 milligrams and nitroprusside 0.1 milligram per kilogram. After the last reference cited on page 115, virtually all the reference numbers in this section are in disarray. In general, what one misses in this chapter is a sense of the variety of coronary-artery diseases and recommendations for anesthetic management based on the pathophysiology of the individual coronary-artery disease patient (e.g., anatomy of the coronary lesions and extent of left ventricular dysfunction). Peripheral vascular disease in the form of abdominal aortic disease and carotid disease is next treated. The section on aortic disease is repetitive of other material in the book and does not focus specifically on those aspects of aortic surgery, (such as renal failure), that make it more difficult to manage than a simple laparotomy. Anesthetic considerations in carotid disease are better highlighted. While there is little new information in this section, it is clear and logically presented. The chapter on deliberate hypotension seems strangely out of place in this book. Patients with coronary or carotid disease are exactly those patients for whom we are often loath to employ intraoperative hypotensive techniques, and this chapter even cites these disease states as contraindications to the use of the technique.

The book fails to cohere into an integrated assessment of the cardiovascular patient, since it remains too much a collection of isolated articles. If, as stated in the preface, it is directed toward the management of the cardiac patient for non-cardiac surgery, a number of omissions are apparent. Where, for example, is a chapter on the anesthetic management of the patients with hypertension, or a consideration of pacemakers, which are reasonably common in this group of patients? Much of the material tends to be repetitive, particularly material relating to preoperative assessment and intraoperative monitoring. Overall, it contains few new observations, nor does it present a new integration of, or perspective on, established facts.

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**Stress-Free Anaesthesia.** (International Congress and Symposium, Series Number 3). EDITED BY C. WOOD. New York, Grune & Stratton, 1978. Pages: 98. Price: \$10.25.

Although this monograph deals with a timely subject, it falls short of its educational goals. It is loosely constructed around a series of scientific papers, which for the most part describe the use of fentanyl as an effective means of relieving surgical stress.