selves with respiratory arrest and its management, the authors have entitled their chapters "Hypoxygenia" and "Treatment of Hypoxemia." The likely result is that the reader will understand the classification of hypoxemia and the use of oxygen, but not the principles of management of the airway and breathing. The illustration of airway maintenance with the pillow still under the patient's head is cause for consternation. The use of a towel clip to pull the tongue forward instead of relying on the backward head-tilt maneuver is disconcerting, as is the use of the S tube, and bellows to aid ventilation. Airway management ends with a detailed, illustrated description of the operative technique for tracheostomy.

Causes of cardiac arrest are presented, followed by management, including cardiac compression or massage and electrical and chemical therapy, but cardiac arrest from coronary heart disease, this country's number one killer, is almost ignored in discussing etiology. Only two pages are given to external cardiac compression, while open-heart compression is fully described and fully illustrated, although probably beyond the scope of a text designed for both medical and paramedical personnel. The techniques, rates, and rhythms recommended for external cardiac compression are not consistent with those in current use in the United States and, if followed by the reader, are likely to inflect internal and chest-wall injuries. There is no effective attempt to integrate Airway and Breathing with Circulation. Indeed, the authors say it is almost impossible in practice to coordinate mechanical ventilation and external cardiac compression.

The chapters on defibrillation give equal space to D.C. defibrillators and A.C. defibrillators; the latter are considered outdated in the United States. The sequence and mode of administration of drugs for the treatment of cardiac arrest are unacceptable. The initial drug recommended is sodium bicarbonate, to be followed by injection of calcium into the right or left ventricle, and then epinephrine into the chambers of the heart if calcium is ineffective. However, the mode now current is not intracardiac injection but the intravenous route, accompanied by external cardiac compression to circulate the drugs. In the immediate post-arrest stage, the authors recommend isoproterenol, vasopressors, hydrocortisone, atropine, digoxin, blockers, and finally, lidocaine. Surely lidocaine is one of the most widely-used drugs given during and after resuscitation and should be featured much higher in the list of therapeutic agents.

The text devotes only four pages to neonatal resuscitation, and ends with a section on post-resuscitation care and organization of cardiopulmonary resuscitation.

The case histories scattered through the book relate to operating room scenarios and deal with acute anesthetic or surgical death rather than cardiac arrest in the street, emergency departments, or general wards.

The reviewer advises American readers not to follow the principles of cardiopulmonary resuscitation laid down in this text, because some are inconsistent with the recommended Standards for Cardiopulmonary Resuscitation and Emergency Cardiac Care of the American Heart Association.

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This collection of 32 papers from the international meeting held in Munich in September 1974 is a superb, extensively detailed statement of current knowledge concerning normal and abnormal dendritic structure and function. Ever since the work of Cajal, Golgi, and Sherrington, we have known that dendrites receive synaptic input, but the research of the past decade has shown dendritic function to be vastly more complex than this.

Dendritic membranes not only sum incoming excitatory and inhibitory signals, they also integrate information and generate spikes. Some dendrites, such as those of interneurons, are presynaptic to other dendrites, cell bodies, or axons. They can form apical bundles in pyramidal cell zones that are electrotonically coupled for synchronous activity as occurs during seizures. Dendrites form growth cones and alter their shape or spine apparatus during development and in response to afferent input. They show severe malformations in some cases of mental retardation. They transport metabolites rapidly and slowly in orthograde and retrograde directions that contribute to neuronal homeostasis and perhaps neurotoxicity. Finally, dendrites undergo degeneration under many abnormal conditions, including senile dementia, hyperbaric oxygen exposure, or respiratory acidosis. This volume clearly demonstrates that the principles of neuronal organization are vastly more complex than was believed 10 years ago, and that dendrites play crucial roles in information processing in the central nervous system.

Almost every article in this collection is well written, with clear presentations of data and many especially beautiful micrographs. Cogent summaries at the end of each paper facilitate the absorption of this wealth of information. Dr. Kreutzberg is to be congratulated on compiling a book that would be of great interest to neuroanatomists, physiologists, pathologists and neurologists. It would be especially valuable to anyone whose training in neurosciences occurred more than ten years ago. Finally, anesthesiologists might ask to what extent the mechanisms of general anesthesia depend upon inhibition of dendritic spike generation, dendrodendritic synchronization, dendritic intracellular transport, or other dendritic functions.

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