LOCAL ANESTHETICS

Second Edition

By

RUDOLPH H. de JONG, M.D.

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PREFACE

No sooner had *Physiology and Pharmacology of Local Anesthesia* been completed in 1970, than new developments in the field followed one upon the other. Much of the impetus for this spurt of fresh departures came from a medical application of local anesthetics altogether different from classical impulse conduction blockade: treatment of cardiac dysrhythmias. This application, plus genuine progress in the fields of membrane physiology, biotransformation, and pharmacokinetics led to a body of literature little touched in the first edition.

By 1974 I had come to realize that extensive revision of the first edition was necessary to upgrade the contents to reflect current scientific contributions. Little did I realize at the time how totally different in scope and sweep the new version would become; had I realized, I might never have proceeded. While similarities between the first edition and the present work are readily identified and many illustrations were retained, the emphasis has shifted from local anesthesia to local anesthetics. One way to identify this volume as more than just an updated version of the older work is the title. On the other hand, to indicate the ties to the parent edition I have retained the original cover design.

This book departs in several respects from the approach used by standard pharmacology and anesthesiology texts. The prime difference, perhaps, is the treatment of local anesthetics as a closely woven family of related drugs, rather than as individual compounds. The mere fact that new local anesthetics constantly are synthesized is but one reason for this approach. More to the point, less repetitive detail is necessary. Last, but by no means least, collective treatment allows time out for brief reviews of pertinent physiology (as of neural and cardiac action potentials) that have long since been forgotten by most of us.

This book not only tells what local anesthetics are and what they do, but also how they do it, where they do it, when they do it, and when they will not do it, how they get in, and how they get out. All in all, it is an exciting story of a discipline on the move. I have gone to considerable lengths to present the more arcane physiologic points in terms as simple and straightforward as feasible. If some liberties with minutiae have been taken, so be it.

After a first chapter glance at the historical sequence leading up to the dramatic introduction of cocaine, the material in the next six chapters builds up from the basic sciences towards clinical goals. Later chapters are stand-alone modules that deal with special pharmacologic aspects and properties of local anesthetics more remote from the primary impulse-blocking objectives of local anesthesia. Nearly a century's scientific and clinical progress is here documented. I enjoyed doing it: I hope you, the reader, will gain as much as I did.

R.de J.

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