

Perspectives in Cardiovascular Research

Volume 9

Series Editor: Arnold M. Katz

Calcium Antagonists and Cardiovascular Disease

Editor

L. H. Opie

Raven Press

044.00
R976.2
E26

Calcium Antagonists and Cardiovascular Disease

Perspectives in Cardiovascular Research
Volume 9

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*Sponsored by the Council
of the International Society*



*on Cardiac Metabolism
and Federation of Cardiology*

Raven Press ■ New York

Raven Press, 1140 Avenue of the Americas, New York, New York 10036

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Made in the United States of America

Library of Congress Cataloging in Publication Data

Main entry under title:

Calcium antagonists and cardiovascular disease.

(Perspectives in cardiovascular research ; v. 9)

Includes index.

1. Calcium—Antagonists—Therapeutic use—Addresses, essays, lectures. 2. Heart—Diseases—Chemotherapy—Addresses, essays, lectures. 3. Calcium—Physiological effect—Addresses, essays, lectures. I. Opie, Lionel H. II. Series. [DNLM: 1. Calcium—Metabolism. 2. Calcium channel blockers. 3. Cardiovascular diseases.

W1 PE871AL v.9 / QV 150 C1435]

RC684.C34C335 1984 616.1'061 82-42629

ISBN 0-89004-967-X

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CALCIUM ANTAGONISTS
AND CARDIOVASCULAR DISEASE

Perspectives in Cardiovascular Research
Volume 9

Perspectives in Cardiovascular Research

Series Editor

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- Vol. 1: Developmental and Physiological Correlates of Cardiac Muscle, *edited by M. Lieberman and T. Sano*, 322 pp., 1975.
- Vol. 2: Neural Mechanisms in Cardiac Arrhythmias, *edited by P. J. Schwartz, A. M. Brown, A. Malliani, and A. Zanchetti*, 460 pp., 1978.
- Vol. 3: Ischemic Myocardium and Antianginal Drugs, *edited by M. M. Winbury and Y. Abiko*, 256 pp., 1979.
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- Vol. 7: Myocardial Hypertrophy and Failure, *edited by Norman R. Alpert*, 704 pp., 1983.
- Vol. 8: Cardiac Hypertrophy in Hypertension, *edited by Robert C. Tarazi and John B. Dunbar*, 368 pp., 1983.
- Vol. 9: Calcium Antagonists and Cardiovascular Disease, *edited by L. H. Opie*, 392 pp., 1984.

Preface

Eleven years ago, Professor Peter Harris of the Cardiothoracic Institute in London and I edited a book entitled *Calcium and the Heart*. In those days, calcium was not a "main-line" subject. Only Fleckenstein referred in any detail to the role of specific inhibitors of calcium action and introduced his concept of calcium antagonists in that book. Four of the six major contributors to that book have also participated in the present book—Fleckenstein, Nayler, Katz, and Schwartz. A comparison of that book and the present shows the enormous rate at which our understanding has grown over the last 12 years. Whereas, in 1971, Professor Harris only found one clinical application of calcium therapy (keeping solutions of calcium salts at hand in the coronary care unit), the present widespread use of calcium-antagonist drugs requires a new book, rather than a new edition of an old book.

The basic purpose of this book is to provide practical knowledge on calcium ion movements and calcium antagonists for cardiologists, research physicians, pharmacologists, and postgraduate students. This aim has been immensely facilitated by two sponsored meetings recently held in Cape Town, South Africa. First, the Council on Cardiac Metabolism of the International Society & Federation of Cardiology sponsored the Symposium on Calcium and Calcium-Antagonists. Excellent support was obtained from a variety of sources, listed in the Acknowledgments. Second, Bayer-Miles Pharmaceutical Company sponsored a satellite symposium at the nearby university town of Stellenbosch, focusing on the role of calcium in myocardial ischemia, infarction, arrhythmias, and hypertension, and the appropriate intervention by calcium antagonists. A series of articles based on the contributors to those two symposia form the backbone of this volume.

In addition, a number of critically important contributors who did not attend the Symposia have very generously agreed to contribute chapters. Such contributors merit special mention and are A. Fleckenstein, E. Carafoli, R. Murphy, H. Yasue, A. Scriabine, H. Mayer, J. Traber, P. Henry, N. Sperelakis, and A. Schwartz. Any success there might be for this book will reflect the outstanding qualities of the individual contributors. Of these contributors, one requires special mention—Professor R. Krebs of Bayer Pharmaceutical Company who is also Professor of Pharmacology and Toxicology at the University of Mainz. Professor Krebs not only helped to organize the meeting in Stellenbosch, but agreed to act as section editor for Pharmacology of Calcium Antagonist Drugs.

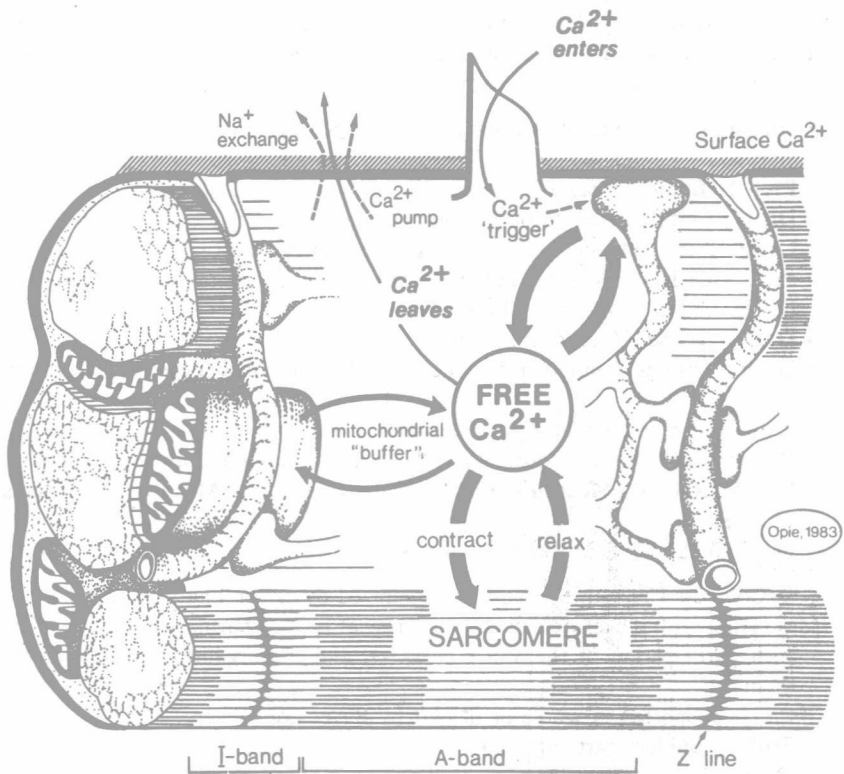
The title *Calcium Antagonists and Cardiovascular Disease* was chosen for three reasons. First, *calcium antagonists* was the term coined by Fleckenstein, who has written the first chapter of this book. Second, as Scriabine and his

group show, calcium antagonists include, as a subdivision, calcium-channel inhibitors. Third, a practical point was that *calcium antagonists* had been the term most widely abstracted at the recent 1982 Meeting of the American Heart Association, winning over the alternate titles.

The contributions of these outstanding authors represent a topical and important book. It is distinguished from other books on calcium antagonists by the careful way in which it probes the role of calcium ion fluxes, the role of calcium in cardiovascular disease, and the pharmacology of calcium-antagonist agents before going on to the clinical application in angina and ischemic heart disease, arrhythmias, and hypertension. This book is offered at a time when clinical interest in calcium antagonists is exceedingly high.

Optimal use of this book requires that the reader should be prepared to delve deeply into physiological, pathological, and pharmacological aspects of calcium metabolism and calcium antagonists, before coming to the clinical application.

Lionel H. Opie



Critical role of calcium in heart muscle contraction.

Acknowledgments

The Council on Cardiac Metabolism of the International Society and Federation of Cardiology wishes to thank the following organizations for help with the two Symposia on Calcium and Calcium Antagonists organized during and after the Southern Africa Cardiac Society Congress:

1. Participants in the meetings organized by the Southern Africa Cardiac Society Congress:

Prof. F. Bühler, Sandoz Ltd.
Dr. C. Conti, University of the Orange Free State
Dr. P. Corr, Leibovicius Trust and Glaxo Pharmaceuticals
Prof. J. de Leiris, Warner-Lambert Pharmaceuticals
Dr. D. C. Harrison, Pfizer Laboratories
Dr. D. Hearse, Hoechst Pharmaceuticals
Dr. R. Jennings, Council on Metabolism of International Society & Federation of Cardiology
Prof. W. Nayler, Knoll Pharmaceuticals
Dr. P. Poole-Wilson, University of Cape Town and Eli Lilly
Dr. W. Roberts, Medical Research Council of South Africa & Leibovicius Trust
Dr. J. Willerson, ICI Pharmaceuticals Ltd.

2. Post-Congress Calcium Symposium, organized by Bayer Pharmaceuticals
Major support has been achieved by courtesy of Bayer Pharmaceuticals, together with participation of the above speakers, and the organizations supporting them.

Speakers supported in whole or in part by Bayer are:

Prof. F. Bühler (part support)
Dr. C. Conti (part support)
Prof. P. Hugenholtz
Dr. A. Katz
Prof. P. Lichtlen
Prof. A. Maseri
Prof. C. Rosendorff
Dr. J. Willerson (part support)

We are particularly indebted to Dr. G. Erdmann of Bayer-Miles Pharmaceutical Ltd. and Mr. Neil Lane for taking on the vast task of organizing the Post-Congress Symposium.

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