Clinical Pharmacology of Antianginal Drugs

Editor U. Abshagen

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Preface

When I was asked some years ago by the editors of the *Handbook of Experimental Pharmacology* to edit a new volume on *Antianginal Drugs,* I agreed on the condition that, in accordance with my scientific background, primary emphasis be given to clinical pharmacology and therapeutics. It soon turned out that, due to rapid developments in this field, nothing of the previous volume on *Antianginal Drugs* by Charlier (Vol. 31, 1971) could be retained apart from its basic idea of devoting considerable space to methodology.

Since editors must operate within certain limits, I had to abstain from dealing with acute myocardial infarction in detail despite the well-known overlap between unstable angina, the preinfarction syndrome, and acute myocardial infarction. It was only possible for acute myocardial infarction and the concept of reduction of infarct size to be briefly discussed within the chapter on pathophysiology of acute coronary insufficiency. The chapter on invasive methods provided an opportunity to touch on new approaches to early intervention in acute myocardial infarction. Here, intracoronary streptokinase therapy and PTCA are considered, again with attention to the overlap between mechanical and pharmacological interventions.

Although space was limited, I decided to start with a chapter on the epidemiology of coronary artery disease. It is written by a convinced and very active proponent of the risk factor concept. This was a deliberate choice in view of some controversy, such as the public discussion of the validity of this concept which has taken place particularly in Europe. At the same time this chapter offered the only opportunity in the volume to highlight the importance of both primary and secondary prevention of coronary artery disease.

The other introductory chapter is on the pathophysiology of coronary insufficiency; the principles reviewed here provide the basis for meaningful pharmacological intervention. Emphasis is given to new concepts and results in the biochemical and molecular areas and to information provided by electron microscopic studies. Furthermore, new insights into the regulation of coronary perfusion under normal and pathological conditions are dealt with. The principles of pharmacological intervention derived from these pathophysiological events during coronary insufficiency are subsequently discussed in a short overview by an eminent pharmacologist in this field.

Before dealing with the clinical pharmacology of the various groups of drugs, however, the book presents a relatively detailed set of chapters on methods for testing antianginal drugs. The purpose of this is to provide not only pharmacological information on drugs but also to present the methodological basis for

the results presented later. For those working in this field, these chapters should be of value as a reference source. They should also enable the critical reader to interpret the experimental results in light of the limitations and pitfalls of the methods used. In accordance with the theme of the volume, emphasis is given to clinical pharmacological methods. The chapter on methods in animal pharmacology is written with therapeutic needs in mind and therefore gives special attention to experiments in conscious animals.

In line with this concept, animal experiments are discussed in the pharmacological chapters only where their results are relevant to therapeutics or to an understanding of the mechanisms of action of the drugs concerned. In view of the different scientific backgrounds of the authors, the emphasis placed on pharmacology and clinical medicine varies from chapter to chapter. In addition, the space available did not allow us to deal with all aspects of the basic pharmacology of the drugs concerned. This seems justified in light of some excellent monographs that have been published recently and are recommended to the interested reader, such as volume 54 of the *Handbook* (parts I and II, 1980 and 1981) dealing with adrenergic activators and inhibitors, and the books by Fleckenstein and Roskamm *Calcium-Antagonismus* (Springer-Verlag, 1980) and by Stone and Antmann *Calcium Channel Blocking Agents in the Treatment of Cardiovascular Disorders* (Futura Publishing Company, 1983).

Although it is always difficult, if not impossible, to keep competent and distinguished authors strictly to the general theme of such a book, I hope that the original intent remains evident, namely to present current scientific views on antianginal drugs from the standpoint of clinical pharmacology and, at the same time, to provide a better understanding of the methods used and their limitations. Thus I hope that the book will prove to be a useful source of information for clinical pharmacologists, cardiologists, and internists with an interest in cardiology, and that it will aid both their scientific work and their therapeutic decision-making.

Mannheim U. ABSHAGEN

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