

JPP 2006, 58: 1691
© 2006 J. Pharm. Pharmacol.
ISSN 0022-3573

K. D. Rainsford, Aspirin and Related Drugs

CRC Press, Taylor & Francis, London. 2004. 770
pages hardback. \$159.95
ISBN: 0-7484-0885-1

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It has taken me some time to write a review about this book. Being over 700 pages long it would have been a matter of simplicity to dive into the chapters that are familiar to me and present an "informed" opinion of the quality of the work. However from the first chapter the reading became compulsory, not only because of the style of writing but much more importantly because of the insight into the subject matter which can only be achieved by decades of dedicated work. My perception is that this book represents an end of an era which was characterised by academics who had detailed and broad-based knowledge of their subject matter. Rainsford and his colleagues certainly touch on every conceivable aspect of aspirin and, to a lesser extent, conventional NSAIDs, including the molecular/physicochemical properties, pharmacology, biology, socioeconomic implications, etc. What is so worrying from a personal perspective is how little I know despite over 20 years of research into aspirin and NSAIDs.

We are given a detailed account of the developmental history of aspirin and related drugs. There is an evolutionary account of the formulation, rejection and acceptance of ideas and concepts that have led to today's dogma about the mechanism of the action and side effects of aspirin. No aspect of the aspirin story is left untouched and everything is questioned, even the details about the discovery of the drug. What becomes so blatantly obvious is that the current and widely accepted dogma about the actions and side effects of aspirin and NSAIDs are over-simplifications, transitional and incorrect, but suit the medical fraternity and pharmaceutical companies equally. It is so convenient to

have a short and simple message. If it is easily digested and logical it becomes so believable! However the myths are effectively demolished and the alternative mechanisms and thoughts are outlined in considerable detail. What emerges is that aspirin has hundreds of actions apart from inhibition of the cyclooxygenase enzymes. Some of these are probably irrelevant to the actions of the drug, while others are potentially important. It is interesting to speculate why some of the alternative mechanisms that Rainsford and colleagues discuss have not been researched in greater detail. It is my belief, and indeed a sobering thought, that despite all the high-brow ideology of science, much of the research into aspirin has been personality driven by persons with a distorted vision of their own self importance. This has delivered simple concepts to the exclusion of a more sophisticated approach by restrictive practices resulting in under-funding of research that does not adhere to the party line and relegation of such research papers into low-impact journals. Rainsford and co-writers do a superb job in detailing much of these lesser well-known actions of aspirin.

The clinical studies with aspirin are presented exceptionally well and in great detail. The references following each chapter are the most comprehensive that I have seen.

Parts of this book will find a very wide audience. Clinicians who use aspirin and related drugs should read some of the clinical chapters to see how little they know about the drugs they use. Research workers will find much here of interest, especially those with their heart in the right place who query prevailing dogmas. I would certainly have benefited from this book at the beginning of my research career and I would urge any and all PhD students working with anti-inflammatory drugs to dive into relevant chapters. Despite a century of aspirin research there is much still to be learned.

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